Regional Water Table (1996) and Water-Level Changes in the Mojave River, the Morongo, and the Fort Irwin Ground-Water Basins, San Bernardino County, California

By GREGORY O. MENDEZ *and* ALLEN H. CHRISTENSEN

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CONVERSION FACTORS

Multiply	By	To obtain
inch (in.)	25.4	millimeter
foot (ft)	.3048	meter
mile (mi)	1.609	kilometer
square mile (mi^2)	2.590	square kilometer

VERTICAL DATUM AND WELL–NUMBERING SYSTEM

VERTICAL DATUM

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

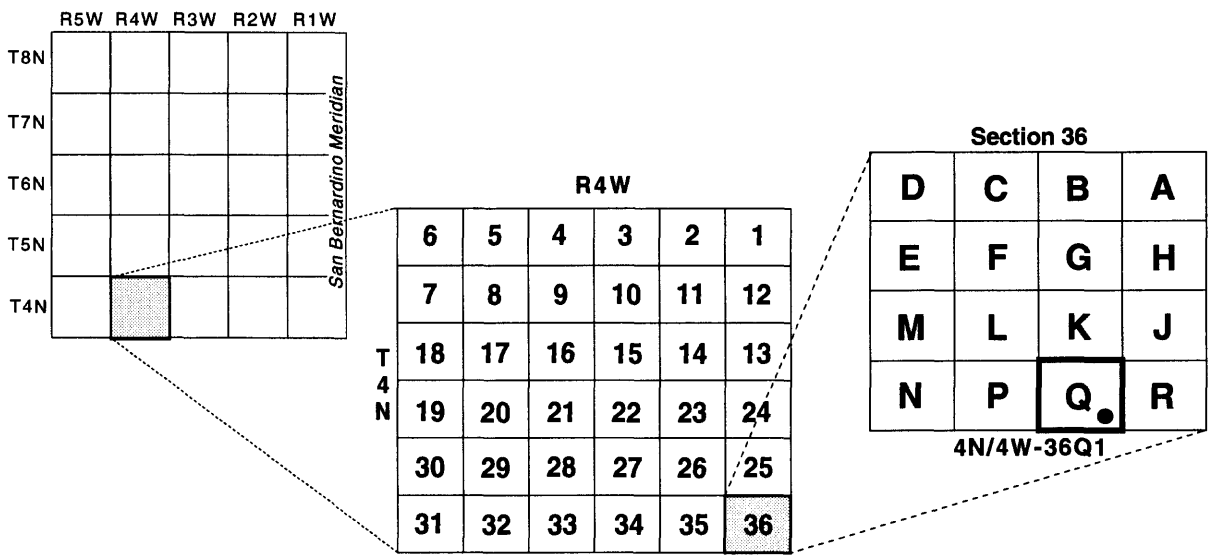
Water Year: A water year is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends. Thus, the water year ending September 30, 1996, is called water year 1996.

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

$$°C = (°F - 32) / 1.8$$

WELL-NUMBERING SYSTEM

Wells and springs are identified and numbered according to their location in the rectangular system for the subdivision of public lands. Identification consists of the township number, north or south; the range number, east or west; and the section number. Each section is divided into sixteen 40-acre tracts lettered consecutively (except I and O), beginning with A in the northeast corner of the section and progressing in a sinusoidal manner to R in the southeast corner. Within the 40-acre tract, wells are sequentially numbered in the order they are inventoried. The final letter refers to the base line and meridian. In California, there are three base lines and meridians; Humboldt (H), Mount Diablo (M), and San Bernardino (S). All wells in the study are referenced to the San Bernardino base line and meridian (S). Well numbers consist of 15 characters and follow the format 004N004W36Q001S. In this report, well numbers are abbreviated and written 4N/4W-36Q1. The following diagram shows how the number for well 4N/4W-36Q1 is derived:



Regional Water Table (1996) and Water-Level Changes in the Mojave River, the Morongo, and the Fort Irwin Ground-Water Basins, San Bernardino County, California

By Gregory O. Mendez *and* Allen H. Christensen

Abstract

The Mojave River, the Morongo, and the Fort Irwin ground-water basins lie in the southwestern part of the Mojave Desert Region of southern California. These basins supply ground water to local water districts, military bases, and private wells. The rapid growth in population in these basins, which is due, in part, to their proximity to Los Angeles, has increased the demand for water and, therefore, the need to understand the Mojave ground-water systems.

Ground-water conditions for the Mojave River, the Morongo, and the Fort Irwin ground-water basins for 1996 and areas with significant changes in water levels are identified in this report. Water-level data were compiled for 632 wells in the study area during January–September 1996 to define the water-table surface and direction of ground-water movement. These data were used to construct the water-table map included in this report. Also shown on the map are 31 hydrographs that show long-term water-level changes in the study area. Short-term water-level changes were determined and a water-level change map was made by comparing 1996 ground-water conditions to 1990–94 conditions in the Mojave ground-water basin and to 1994 conditions in the Morongo and the Fort Irwin ground-water basins.

In general, ground-water levels and the direction of ground-water movement in the regional aquifer have not changed significantly since previously published maps (1995). However, the short-term water level did change at specific locations in all three ground-water basins. Water levels in the Mojave River ground-water basin had a maximum rise during the period 1992–96 of 52 feet and a maximum decline of 28. Water levels in the Morongo ground-water basin had a maximum rise of 66 feet and a maximum decline of 57 feet. The Fort Irwin ground-water basins, however, had relatively little change in water level with a maximum rise of 6 feet and a maximum decline of 8 feet. Hydrographs in the regional aquifer system indicate a decline or, in some areas, no change in the water table during the period of record. Water levels in the shallow alluvial aquifer, generally within 1 mile of the Mojave River, fluctuate in response to streamflow. Ground-water levels rise during wet periods, when floodflows in the Mojave River recharge the shallow alluvial aquifer.

INTRODUCTION

The Mojave River, the Morongo, and the Fort Irwin ground-water basins lie in the southwestern part of the Mojave Desert region of southern California (fig. 1). Surface water, including the Mojave River, is intermittent in most of the region; there is no reliable supply of surface water. Local water districts, municipalities, military bases, and private well owners rely almost entirely on local ground water for supply.

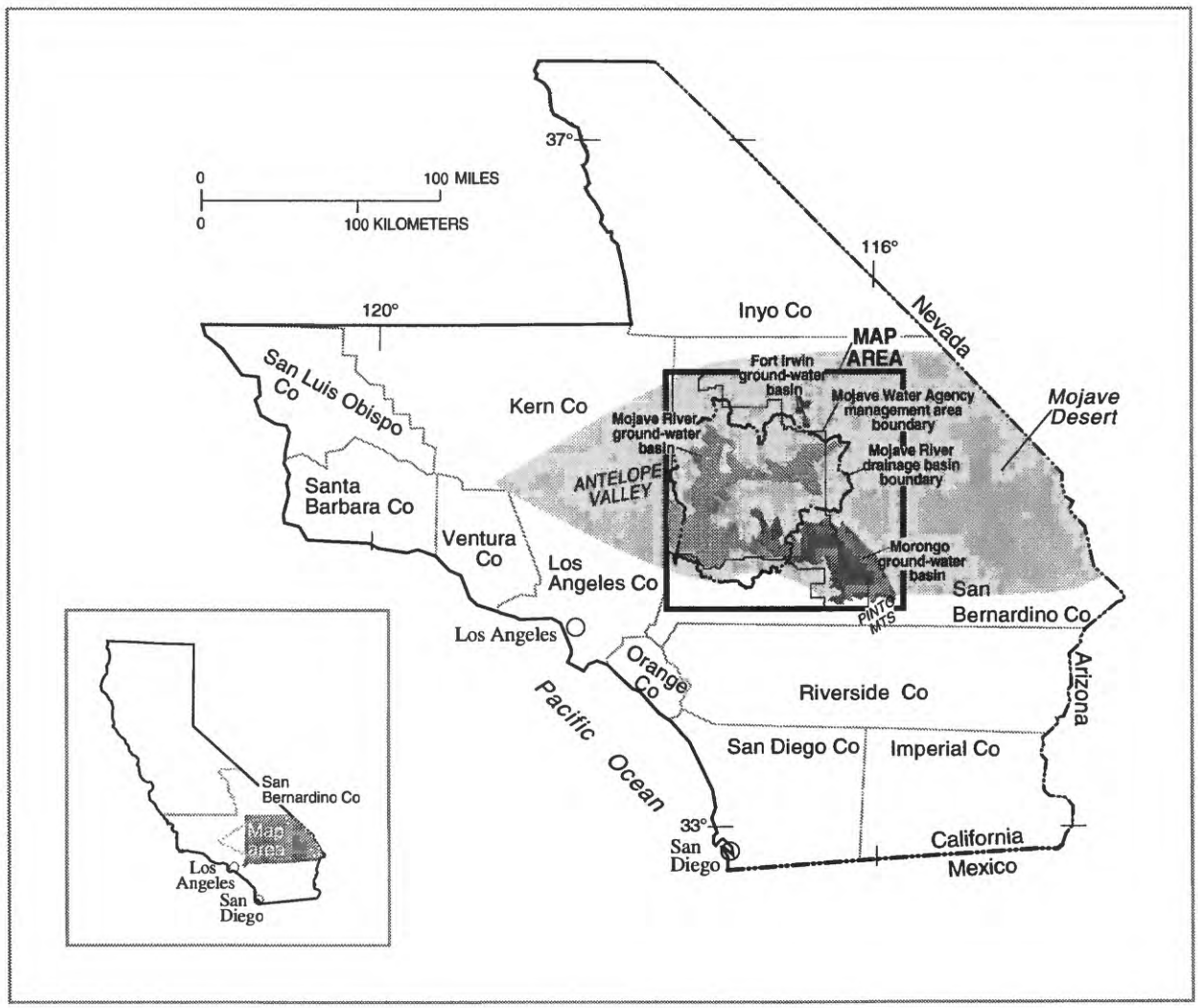


Figure 1. Location of the Mojave River, the Morongo, and the Fort Irwin ground-water basins in the southwestern Mojave Desert, California.

Localized heavy ground-water withdrawal has resulted in overdraft in parts of the basins. To understand and manage the ground-water resources, ground-water conditions periodically need to be documented.

This study was done by the U.S. Geological Survey (USGS), in cooperation with the Mojave Water Agency, the U.S. Marine Corps Air/Ground Combat Center at Twentynine Palms (USMCAGCC), and the Fort Irwin National Training Center (NTC).

Purpose and Scope

The purposes of this study were to document the ground-water conditions for the Mojave River, the Morongo, and the Fort Irwin ground-water basins in 1996 and to identify areas that have had significant short- or long-term water-level change. In 1996, water-levels were measured in 632 wells (table 1, at back of report) and the data were used to construct a water-table map (pl. 1, in pocket). Historical water-level data were used to construct hydrographs (pl. 1) that show long-term water-level changes in selected wells in the study area. Short-term water-level changes in the Mojave River, the Morongo, and the Fort Irwin ground-water basins were determined by comparing 1996 and 1990–94 data.

Acknowledgments

The authors thank the local water agencies that provided water-level data and access to their wells for this study: the city of Adelanto, the Apple Valley

Ranchos Water Company in Apple Valley, the Baldy Mesa and the Hesperia Water Districts in Hesperia, the Bighorn-Desert View Water Agency in Landers, the Hi-Desert Water District in Yucca Valley, the Joshua Basin Water District in Joshua Tree, the Twentynine Palms Water District in Twentynine Palms, and the Victor Valley Water District in Victorville. The authors also thank the personnel of the USGS for their dedicated assistance and attention to detail in the collection, review, and graphical representation of data.

DESCRIPTION OF THE STUDY AREA

The climate of the Mojave Desert region of southern California is characterized by low precipitation and humidity and temperatures that range from above 100°F in the summer to below 32°F in the winter. Average annual precipitation in the study area ranges from 4 to 6 in., although it can be greater than 20 in. in the San Bernardino and the San Gabriel Mountain Ranges to the south (Rantz, 1969). Recharge to the ground-water system from direct infiltration (areal recharge) of precipitation is minimal.

The area of the Mojave River, the Morongo, and the Fort Irwin ground-water basins is about 2,430 mi^2 (fig. 1). Although these basins are largely undeveloped, desert communities are expanding rapidly in areas within commuting distance of the Los Angeles metropolitan area. The military bases—the NTC north of Barstow and the USMCAGCC near Twentynine Palms—cover much of the study area (pl. 1). Agricultural development primarily is concentrated along the Mojave River and around the communities of Newberry Springs and Lucerne Valley.

The Mojave River ground-water basin has an area of about 1,400 mi^2 and extends from the San Bernardino and the San Gabriel Mountains on the south to Afton Canyon on the northeast (pl. 1). The basin is bounded by Antelope Valley to the west and shares its southeastern boundary with the Morongo ground-water basin near the town of Lucerne Valley. The Mojave River ground-water basin consists of several alluvial-filled valleys and ground-water basins that are hydraulically connected. The Mojave River ground-water basin, which is an adjudicated ground-water basin, consists of five subareas: Alto, Baja, Centro, Este, and Oeste (fig. 2 on pl. 1). The Alto subarea has a component called the Alto Transition area, which is the area between the Lower Narrows and the Centro subarea.

The Mojave River is the principal source of ground-water recharge to the Mojave River ground-water basin. When surface water is present, the river flows northward from the San Bernardino Mountains through Victorville, then eastward through Barstow, and exits the Mojave ground-water basin at Afton Canyon almost 100 mi from its headwaters.

The Morongo ground-water basin has an area of about 1,000 mi^2 and is bounded by the San Bernardino Mountains to the southwest, the Granite and the Ord Mountains to the northwest, the Bullion Mountains to the northeast, and the Little San Bernardino and the Pinto Mountains to the south (pl. 1). The Morongo ground-water basin is divided into 17 ground-water subbasins: Copper Mountain, Deadman, Emerson, Fry, Giant Rock, Johnson, Joshua Tree, Lucerne, Mainside, Means, Mesquite, Pipes, Reche, Surprise Spring, Twentynine Palms, Upper Johnson, and Warren (fig. 2 on pl. 1). The Morongo ground-water basin has no significant source for ground-water recharge other than from small, intermittent washes.

The Irwin, the Langford, and the Bicycle ground-water basins are referred to in this report as the Fort Irwin ground-water basins (pl. 1). These three basins lie within and provide the water supply to the NTC. The Fort Irwin ground-water basins have a total area of about 30 mi^2. Similar to the Morongo ground-water basin, the Fort Irwin ground-water basins have no perennial surface-water and, therefore, no significant source of natural ground-water recharge.

GEOHYDROLOGY

Non-water-bearing igneous and metamorphic rocks underlie the ground-water basins and form the surrounding mountains and hills in the study area. These rocks contain virtually no water, except in joints or fractures. In some places within the ground-water basins and along their boundaries, these non-water-bearing rocks are not exposed, but their presence above the altitude of the water table forms a barrier to ground-water movement.

In the Mojave River ground-water basin, the water-bearing deposits are unconsolidated and partly consolidated continental deposits of Quaternary and Tertiary age. These deposits form two major aquifers: a shallow alluvial aquifer and an underlying regional aquifer. The shallow alluvial aquifer overlies the regional aquifer along the Mojave River and consists of permeable river deposits as thick as 200 ft that are

generally within 1 mi of the river. The shallow alluvial aquifer is the most productive aquifer in the ground-water basin and yields much of the ground-water supply. The regional aquifer consists of unconsolidated older alluvium, fan deposits, and partly consolidated to consolidated sedimentary deposits as thick as 1,000 ft. These deposits are generally fine grained and their permeability declines with depth.

Continental deposits of Quaternary and Tertiary age fill the Morongo ground-water basin to a maximum depth of 10,000 ft near the eastern edge of the basin north of Deadman Lake (Moyle, 1984). In general, the continental deposits are unconsolidated at land surface and become partly consolidated with depth. Most wells in the ground-water basin yield water from the unconsolidated deposits.

The Fort Irwin ground-water basins (modified from Wilson F. So and Associates, 1989) are filled with unconsolidated alluvial deposits from Quaternary to Tertiary age. The alluvial deposits are as thick as 950 ft in the northern part of the Irwin ground-water basin (Densmore and Londquist, in press). Preliminary seismic studies of the Bicycle and the Langford ground-water basins, which are two of the Fort Irwin ground-water basins, indicate that the alluvial deposits are as thick as 1,000 ft (David L. Berger, U.S. Geological Survey, written commun., 1996).

The Mojave Desert region of southern California is dominated by northwest- to southeast-trending right-lateral faults, which indicate some vertical movement. Large differences in water levels across some of these faults indicate that they are impediments to ground-water movement. The fault coverage shown on plate 1 was modified from Bortugno (1986) and Cox and Wilshire (1994). A fault coverage was not available north of latitude 35°N.

GROUND-WATER LEVELS AND MOVEMENT

Water-level data were collected from 632 wells (table 1) during January–September 1996 to define the water-table surface and the direction of ground-water movement in the study area (pl. 1). The water table is best defined as the surface on which the fluid pressure in the pores of a porous medium is exactly atmospheric. The location of this surface is revealed by the level at which water stands in a shallow well open along its length and penetrating the surficial deposits just deep enough to encounter standing water in the bottom (Freeze and Cherry, 1979). Most water levels were measured by the USGS with calibrated steel or electric tapes. Some water levels were reported by local water agencies (table 1). Water-table altitudes were calculated by subtracting the measured depth to water from the land-surface datum (determined from a leveling survey or estimated from topographic maps).

The USGS and other agencies have completed multiple-well monitoring sites (nested wells) within the study area for the collection of depth-dependent data (table 1). The water-table map (pl. 1) presents data collected from the shallowest well at a multiple-well monitoring site, except if the well is perforated in a perched aquifer. One area where perched water is well documented (2N/9E-29M3, -32J1, and -32R3, table 1) is in the Mainside subbasin under Mesquite Dry Lake (Morongo ground-water basin) and is about 140 ft above the regional aquifer (2N/9E-29Q1 and 29R1, table 1).

Ground water flows from areas of higher to areas of lower water-level altitude and perpendicular to lines of equal water-table altitude (contours) presented on the water-table map (pl. 1). In areas where water-table data were unavailable for 1996, the general shape of the contour was defined on the basis of previous water-table maps by Stamos and Predmore (1995) and Trayler and Koczot (1995). An inset map of southern Warren subbasin, within the Morongo ground-water basin, was made to enhance the detail of water-level contours in the Yucca Valley area (inset A, pl. 1).

Inspection of water-table contours in the vicinity of faults indicates that some faults in the study area are barriers to ground-water flow (pl. 1). The barrier effect of the faults is probably caused by compaction and deformation of water-bearing deposits immediately adjacent to the faults and by cementation of the fault zone by mineral deposits from ground water (Londquist and Martin, 1991). For example, there is approximately a 60-ft drop in the water level across the Calico-Newberry Fault, which crosses the Mojave River about 10 mi east of Barstow in the Mojave River ground-water basin. Similarly, there is a change in the water level of more than 300 ft across the Surprise Spring Fault near the extinct Surprise Spring about 10 mi east of Landers in the Morongo ground-water basin. The effect of faults on ground-water flow is emphasized by the past and current existence of springs at fault boundaries (Mesquite Spring, Old Woman Springs, Rabbit Springs, and Surprise Spring), which

indicates that ground water is, or has been, diverted to the surface at these locations.

WATER-LEVEL CHANGE

Historical water-level data were used in conjunction with data collected during this study to determine both long-term and short-term water-level changes in the study area. Long-term water-level changes were determined by constructing water-level hydrographs of wells in different parts of the study area (pl. 1) and short-term water-level changes (fig. 2 on pl. 1) were determined by comparing 1996 ground-water levels with previously published water-level measurements collected in 1990–94 (Stamos and Predmore, 1995) for the Mojave River ground-water basin and 1994 (Trayler and Koczot, 1995) for the Morongo and the Fort Irwin ground-water basins (table 1; fig. 2 on pl. 1).

LONG-TERM WATER-LEVEL CHANGES

Thirty-one hydrographs show (pl. 1) long-term water-level changes in the study area. Selected hydrographs include data from more than one well in order to show a longer period of record. These long-term hydrographs indicate a general decline in water levels in wells near areas of heavy ground-water withdrawal in the regional aquifer.

In the Alto subarea of the Mojave ground-water basin, water levels have declined as much as 60 ft since the 1940's (4N/3W-1M1 and 5N/5W-22E1, -22E2). This decline is a reflection of ground-water withdrawal for the cities of Adelanto, Apple Valley, Hesperia, and Victorville. In the Centro subarea, water levels west of Harper Lake (11N/4W-29R1) have declined about 90 ft since 1954; water levels east of Harper Lake (11N/3W-28R1, -28R2) have declined about 30 ft since 1950, probably because of agricultural pumpage; and water levels east of Iron Mountain and south of the Mojave River (combined hydrograph 9N/2W-19B1 and 9N/3W-13R1) have declined about 30 ft since 1932. Water levels have remained relatively constant in the southeastern part of the subarea (9N/1W-27D1), where ground-water withdrawal from the regional aquifer is minimal. In the eastern part of the Baja subarea near Newberry Springs, the water table has declined as much as 75 ft since 1930 (9N/3E-34D1, -34N1); this decline also reflects the effects of ground-water withdrawal for agriculture.

The hydrographs of wells in the shallow alluvial aquifer in the Alto and the Centro subareas, and to a lesser degree in the Baja subarea, show alternating periods of declining and rising water levels (4N/4W-1D2; 5N/4W-11P1, -11P3; 8N/4W-12Q1; 8N/4W-31R1; 9N/3E-3D1, -3D2; 10N/2W-32B1, and -33R16). This cyclic pattern is related to the amount of flow in the Mojave River. During dry periods, when most of the Mojave River is dry and recharge from the river to the shallow alluvial aquifer is minimal, ground-water levels decline in response to natural discharge (evapotranspiration and ground-water underflow to other subbasins) and ground-water withdrawal. Ground-water levels rise during wet periods, when floodflows in the Mojave River recharge the shallow alluvial aquifer.

In the Alto and the Centro subareas of the Mojave ground-water basin, long-term hydrographs indicate a general declining trend for wells in the shallow alluvial aquifer. The exception to this declining trend is shown by the hydrographs for wells (5N/4W-11P1, -11P3; 7N/4W-30C1), which have remained relatively constant. These wells are in the vicinity of the Narrows near Victorville where the Mojave River flows perennially. However, long-term hydrographs for wells in the Baja subarea indicate water-level declines of 50 ft or more (9N/1E-10L1; 9N/3E-3D1, -3D2 and 9N/3E-34D1, -34N1). Lines (1996) estimated that the shallow alluvial aquifer in the Alto and the Centro subareas receives some recharge from the Mojave River each year, whereas the aquifer in the Baja subarea receives recharge only during periods of high flow. The water-level declines in the Baja subarea are the result of natural discharge and agricultural pumpage.

In the Morongo ground-water basin, hydrographs indicate that water-levels have remained relatively constant in the Copper Mountain, the Deadman, the Johnson, and the Mesquite subbasins (1N/7E-23A1; 3N/7E-36G1, 3N/8E-29C1; 4N/3E-23G1; 1N/8E-12G1 and 1N/9E-33H2, respectively) where the population is small and the pumpage is minimal. Available data were insufficient to determine long-term water-table fluctuations in the Emerson, the Fry, the Pipes, or the Upper Johnson subbasins. Water-tables have declined in the Lucerne, the Reche, the Surprise Spring, the Twentynine Palms, and the Warren subbasins. In the Lucerne subbasin, the water levels

have declined about 100 ft in wells 5N/1W-25G1 and 5N/1E-17D1 since the early 1950's. In the Reche subbasin, The water level has declined 45 ft in well 2N/6E-18B1 since 1963. In the Twentynine Palms subbasin, the water level has declined 32 ft in well 1S/9E-3D1 since 1940. In the Surprise Spring subbasin, the water levels have remained relatively constant in well 3N/7E-31E1, but it has declined 115 ft in well 2N/7E-2C1 since 1952 as a result of ground-water withdrawal for USMCAGCC. In the Warren subbasin near Yucca Valley, water levels have declined 309 ft in wells 1N/5E-36K1 AND -36K2 (combined hydrograph, pl. 1), since 1947. In the western part of the Warren subbasin, the water table has declined about 178 ft in well 1N/5E-34N1 since the late 1950's. These large declines probably are a result of pumpage for the Yucca Valley area.

In the Fort Irwin ground-water basins, data were available to construct long-term hydrographs for wells 14N/3E-14H1 and -32J1 in the Bicycle and the Irwin ground-water basins, respectively. These long-term hydrographs indicate that ground-water withdrawals to supply the NTC have resulted in water-table declines of about 70 ft since the late 1960's in the northern part of the Bicycle ground-water basin and about 30 ft since 1943 in the central part of the Irwin ground-water basin.

SHORT-TERM WATER-LEVEL CHANGES

A water-table change map (fig. 2 on pl. 1) was made by comparing 1996 ground-water levels with water levels reported by Stamos and Predmore (1995) for the Mojave River ground-water basin and by Trayler and Koczot (1995) for the Morongo ground-water basin. Short-term water-level changes were determined by comparing 1996 ground-water levels with previously published water-level measurements collected during 1990–94 for the Mojave River ground-water basin and during 1994 for the Morongo ground-water basin (Trayler and Koczot, 1995). Twenty wells measured in 1994 in the Fort Irwin ground-water basins were compared with 1996 water-level data.

In the Mojave River ground-water basin, the maximum water table rise was 52 ft and the maximum decline was 28 ft during the period 1992–96. The water level rose in at least one well during this period in all subareas. The most significant rises were in the Alto and the Centro subareas in the shallow alluvial aquifer, owing to ground-water recharge from floodflows in the Mojave River. Near the headwaters of the Mojave River in the Alto subarea, the water level rose about 22 ft in well 4N/3W-31L9. In the Transition area (within the Alto subarea), two wells had a rise in water level, the largest of which was about 30 ft in well 7N/4W-6N1. Where the Mojave River enters the Centro subarea, the water level rose about 13 ft in well 8N/4W-10Q1. Near Barstow, the water level rose about 45 ft in well 9N/3W-1R7 and 52 ft in well 9N/2W-1A2. East of Barstow, the water level rose about 28 ft in well 9N/1W-4J8. In the Baja subarea, east of the Camp Rock-Harper Lake Fault zone, formerly called the Waterman Fault, the water table indicated no significant change from previous measurements. In the Este subarea, the water level in well 4N/2W-12N2 rose about 12 ft. In the Oeste subarea, the water level in well 5N/7W-17D1 rose about 7 ft.

The water-table change map also indicates the Mojave River ground-water basin had some areas where the water table has declined. In the Alto, the Centro, the Este, and the Oeste subareas, 11 wells indicated a decline in the water table. In the Baja subarea north of the Mojave River, 13 wells indicated a decline. The quantity and frequency of flow in the Mojave River declines rapidly when it reaches the Baja subarea (Lines, 1996); therefore, this subarea does not receive much ground-water recharge from stormflows.

In the Morongo ground-water basin, the maximum rise in the water table was 66 ft and the maximum decline was 57 ft. There was an rise in water levels in only 6 of the 17 ground-water subbasins. Of the wells measured in the Copper Mountain, the Deadman, the Pipes, and the Surprise Spring subbasins, only one well in each subbasin had a rise in water level. In the Lucerne subbasin, five wells had a rise in water levels with the largest rise of about 14 ft in well 5N/1W-36R1. The largest water table rise and decline in the Morongo ground-water basin was in the Warren subbasin. The water-level rise of nearly 66 ft in well 1N/5E-36K3 probably resulted from a decrease in pumpage in the subbasin. The decline of nearly 57 ft in well 1N/6E-31C1 probably resulted from inadequate time for recovery from pumping before the water-level measurement was made. The water-table change map also indicates that the water table declined by more than 5 ft in wells near the towns of Landers, Twentynine Palms, and Yucca Valley, which are supplied by municipal and domestic withdrawals of ground water.

The water table in the Fort Irwin ground-water basins has remained relatively unchanged, with a maximum rise in the water table of 6 ft and the maximum decline of 8 ft. Of the 11 wells measured in the Irwin ground-water basin, only well 14N/3E-32P6 indicated a significant rise in the water table (about 6 ft). In the Bicycle ground-water basin, well 14N/3E-24H1 had a decline in the water level of about 6 ft and well 14N/4E-18N2 had a decline of about 8 ft. In the Langford ground-water basin, none of the four wells measured had water level fluctuations of more than 5 ft.

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Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California

[ft, foot. State well No.: See "Well-Numbering System" section in text; some numbers subject to change upon verification. U.S. Geological Survey (USGS) identification No.: latitude, longitude, and sequence number. Water-level difference, comparison between 1996 data and 1990–94 data (Stamos and Predmore, 1995; Trayler and Koczot, 1995). Measurement method: A, airline; R, reported by local water agencies; S, steel tape; V, calibrated electric tape. —, no data. Well notes: D, dry; H, wells used for historical data on hydrographs; N, data not plotted on plate 1 because of overcrowding of similar data; O, obstruction at specified depth; P, pumping; PW, well with perched water; R, recent pumping; S, nearby pumping]

State well no.	USGS Identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
1N/5E–2N1	341144116260601	—	—	5–15–96	44.29	—	3,476	3,520	S	—	—	
–28N1	340815116281301	—	—	4–16–96	111.48	—	3,524	3,635	S	—	—	
–33J1	340729116272901	5–6–94	255.97	4–16–96	253.09	2.88	3,118	3,371	V	310	245–310	O at 280
–34K1	340729116264701	1–5–94	415.2	4–25–96	413.5	1.7	2,967	3,380	R	640	340–640	
–34N1	340725116272401	1–4–94	385	4–25–96	377	8	2,963	3,340	R	548	245–545	
–34P4	340727116270801	1–6–94	428.5	3–26–96	431.7	–3.2	2,928	3,360	R	1,010	398–1,010	
–34Q1	340724116264801	1–4–94	423.7	4–25–96	419.5	4.2	2,941	3,360	R	757	370–571	
–34Q2	340727116263801	1–5–94	409.6	4–25–96	408.3	1.3	2,952	3,360	R	990	360–900	
–35K1	340729116253701	1–6–94	354	3–26–96	335.4	18.6	2,925	3,260	R	860	300–850	
–35P1	340722116260301	1–5–94	335.2	4–25–96	337.7	–2.5	2,942	3,280	R	504	194–494	
–36H2	340751116241901	1–5–94	322.3	4–25–96	306.2	16.1	2,904	3,210	R	1,000	400–1,000	
–36K1	340635116244601	—	—	—	—	—	—	3,230	—	333	—	H
–36K2	340736116244601	1–5–94	423.2	4–25–96	374.3	48.9	2,856	3,230	R	805	307–770	
–36K3	340738116244301	1–4–94	374	4–25–96	308.1	65.9	2,922	3,230	R	1,115	550–1,115	
–36L1	340734116245401	1–4–94	413.1	3–26–96	379.3	33.8	2,851	3,230	R	735	275–725	
–36M1[1]	340737116250801	5–23–94	368.86	3–12–96	387.17	–18.31	2,853	3,240	V	570	550–570	
–36M2[1]	340737116250802	5–23–94	—	3–12–96	290.76	—	2,949	3,240	V	390	370–390	
–36M3[1]	340737116250803	5–23–94	—	3–15–96	280.34	—	2,960	3,240	V	300	280–300	
–36M4	340731116251001	1–4–94	430.4	4–25–96	371	59.4	2,874	3,245	R	800	400–800	
–36M6	340732116251601	1–4–94	414.7	4–25–96	361.4	53.3	2,884	3,245	R	800	450–800	N
1N/6E–13R1	340953116175801	5–3–94	440.52	5–22–96	440.45	.07	2,210	2,650	V	715	455–710	
–17A1	341036116221301	6–9–94	297.57	4–25–96	280.2	17.37	3,029	3,309	R	—	—	
–25M2	340817116185801	3–30–94	444.62	4–30–96	448.54	–3.92	2,274	2,723	R	500	452	
–29J3	340821116220901	7–29–94	180	4–16–96	175.26	4.74	2,920	3,095	S	803	350–773	
–29R3	340816116220901	7–29–94	186	4–17–96	178.08	7.92	2,927	3,105	V	680	360–660	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
1N/6E–31C1	340750116234401	1–5–94	230.9	3–26–96	287.6	–56.7	2,911	3,199	R	729	—	
–31E1	340744116240601	7–29–94	315	4–17–96	309.25	–3.74	2,891	3,200	V	—	—	
–31G1	340740116233401	7–29–94	378	4–17–96	381.74	5.75	2,868	3,250	V	—	—	
1N/7E–10N1	341044116144301	2–2–94	208.24	4–18–96	207.92	.32	2,177	2,385	S	267	—	
–22D1	340947116144101	2–28–94	233.94	4–18–96	233.5	.44	2,172	2,405	V	506	464–506	
–22L2	340923116142501	2–2–94	232.82	5–15–96	232.44	.38	2,176	2,408	V	393	241–387	
–23A1	340945116125001	5–2–94	205.15	5–15–96	206.14	–.99	2,170	2,376	V	370	360–370	
–23P1	340901116132301	2–3–94	203.93	4–18–96	202.24	1.69	2,180	2,382	S	429	—	
–28Q1	340819116145001	2–2–94	204.06	4–18–96	205.25	–1.19	2,278	2,483	V	412	—	
–34B1	340803116140601	2–28–94	216.15	4–18–96	218.27	–2.12	2,271	2,489	V	590	527–590	
–34D1	340754116144501	2–2–94	262.59	4–18–96	264.83	–2.24	2,278	2,543	V	396	261–391	
1N/8E–12G1	341114116053301	3–2–94	200.78	5–6–96	200.86	–.08	1,772	1,973	V	—	—	
–30J2	340831116104301	9–28–93	164.5	3–14–96	167.7	–3.2	2,185	2,353	R	380	145–312	
–30N1	340807116113101	2–17–94	307.67	3–14–96	309.8	–2.13	2,180	2,490	R	400	200–400	
–33A2	340804116083001	2–1–94	311.33	3–15–96	311.3	.03	2,199	2,510	R	350	195–345	
–34M1	340731116082601	3–4–94	311.26	5–22–96	308.2	3.06	2,392	2,700	V	410	391	
–34N1	340722116081701	3–4–94	249.97	5–22–96	257.43	–7.46	2,433	2,690	V	350	250–350	
–36A1	340801116052401	1–18–94	185.66	3–15–96	198.73	–13.07	1,931	2,130	R	292	—	
–36G1	340742116053201	1–4–94	218.58	3–14–96	230.03	–11.45	1,928	2,158	R	430	220–420	
1N/9E–4N3	341141116030901	3–3–94	16.9	5–7–96	16.93	–.03	1,770	1,787	V	500	390–495	
–16H4	341020116021901	3–3–94	15.76	5–7–96	17.24	–1.48	1,778	1,795	V	55	—	
–17E1	341031116041401	3–2–94	109.88	5–7–96	111.15	–1.27	1,759	1,870	V	—	—	
–27C1	340855116013601	3–3–94	84.63	4–24–96	84.86	–.23	1,782	1,867	V	—	—	
–31A4	340755116042501	1–18–94	144.67	3–15–96	154.07	–9.4	1,931	2,085	R	398	160–398	
–31C1	340757116045601	1–18–94	158.5	3–15–96	170.6	–12.1	1,934	2,105	R	—	—	

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
1N/9E–32P1	340719116034901	1–20–94	177.42	3–14–96	182.47	–5.05	1,958	2,140	R	320	220–320	
–33H2	340741116022002	3–3–94	51.69	4–23–96	52.52	–.83	1,908	1,961	V	57.4	55.0–57.4	
–33J3	340739116021701	3–3–94	17.83	4–23–96	18.93	–1.1	1,953	1,972	V	35	33–35	
–33K5	340739116023004	3–3–94	23.33	4–23–96	24.35	–1.02	1,949	1,973	V	28	25.6–27.6	
–34A1	340808116012101	3–3–94	151.93	5–6–96	150.88	1.05	1,787	1,938	V	—	—	
–35F1	340756116004601	3–3–94	115.4	5–6–96	115.58	–.18	1,856	1,972	V	—	—	
–35N1	340718116010301	3–4–94	115.62	3–14–96	116.77	–1.15	1,964	2,081	R	260	147–247	
1S/5E–3D1	340717116271001	1–6–94	380.52	4–25–96	386.7	–6.18	2,953	3,340	R	940	400–940	P, O at 622
–4A1	340706116273001	4–26–94	345.1	3–26–96	373.3	–28.2	2,958	3,331	R	535	200–525	
–4B1	340706116274401	4–26–94	379.22	3–26–96	383.4	–4.18	2,956	3,339	R	—	25–315	
–5A1	340700116283201	5–4–94	107.94	4–16–96	112.07	–4.13	3,442	3,554	V	390	145–340	O at 258
–10D1	340614116272201	5–6–94	47.65	4–16–96	4.61	7.04	3,529	3,570	S	130	—	
1S/9E–3D1	340714116020701	3–4–94	113.32	5–22–96	118.29	–4.97	1,957	2,075	S	275	—	
2N/5E–1G1	341716116242901	5–25–94	100.42	4–17–96	101.54	–1.12	2,908	3,010	V	—	—	
–12B1	341643116243101	6–9–94	145.17	3–13–96	134.17	11	2,925	3,059	R	—	—	
–12N1	341600116250801	5–25–94	283.33	4–17–96	283.89	–.56	2,933	3,217	V	358	337–358	
–13A1	341549116241601	5–26–94	138.9	4–17–96	143.19	–4.29	2,936	3,079	V	166	135–190	O at 155
–14M1	341520116261901	5–26–94	190.03	4–17–96	181.68	8.35	3,241	3,423	S	305	170–300	O at 245
–22J1	341438116262801	6–9–94	257	3–13–96	265.12	–8.12	3,238	3,503	R	785	250–775	
–24H1	341444116241701	6–9–94	270.99	4–25–96	280.5	–9.51	3,002	3,282	R	604	220–580	
–27A1	341412116262201	5–5–94	219.76	4–17–96	230.51	–10.75	3,239	3,470	V	485	443–485	O at 445
–27K2	341343116263801	6–9–94	221.83	3–13–96	232.25	–10.42	3,233	3,465	R	322	184–319	
–27R1	341331116263201	6–9–94	221.08	3–13–96	231.91	–10.83	3,238	3,470	R	475	260–470	
–36C1	341319116244901	6–9–94	282.33	3–13–96	278.18	4.15	3,155	3,433	R	—	—	
2N/6E–11M1	341622116194601	3–23–94	482.85	4–23–96	482.21	.64	2,321	2,803	V	790	750	

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
2N/6E–18B1	341556116233401	5–26–94	221.9	3–13–96	229.52	–7.62	2,857	3,087	R	310	187–305	
–30N1	341332116241301	6–9–94	351.08	3–13–96	350.58	.5	3,015	3,366	R	920	300–920	O at 750
–31D1	341316116240101	5–5–94	316.69	4–17–96	316.31	.38	3,079	3,395	V	358	337–358	O at 353.4
2N/7E–2C1	341741116132501	3–23–94	135.22	5–23–96	139.5	–4.28	2,133	2,272	V	398	149–398	S, O at 377
–3A1	341740116134201	3–23–94	160.54	4–23–96	161.94	–1.4	2,139	2,301	S	560	210–550	O at 550
–3B1	341736116141201	3–23–94	186.02	4–23–96	155.11	30.91	2,200	2,355	S	700	260–690	
–4H1	341720116145601	3–23–94	216.02	4–23–96	216.68	–.66	2,225	2,442	V	481	300–420	O at 420
–5B1	341742116160701	8–23–94	356.16	4–23–96	357.36	–1.2	2,229	2,587	V	405	385–405	
–10D1[1]	341643116144401	—	—	1–10–96	361.78	—	2,219	2,581	V	900	880–900	
–10D2[1]	341643116144402	—	—	1–10–96	362.3	—	2,219	2,581	V	640	620–640	
–10D3[1]	341643116144403	—	—	1–10–96	362.2	—	2,219	2,581	V	525	505–525	
–10D4[1]	341643116144404	—	—	1–10–96	361.5	—	2,219	2,581	V	420	400–420	
–11R1[1]	341601116124801	—	—	1–31–96	396.74	—	2,052	2,449	V	640	620–640	
–11R2[1]	341601116124802	—	—	1–31–96	237.84	—	2,211	2,449	V	485	465–485	
–11R3[1]	341601116124803	—	—	1–31–96	237.38	—	2,211	2,449	V	300	280–300	
–19A1	341501116170601	5–3–94	505.95	4–25–96	506.33	–.38	2,242	2,748	V	650	500–645	
–36R1	341238116114301	3–1–94	291.85	4–25–96	290.27	1.58	2,015	2,305	V	462	305–462	O at 372
2N/8E–4B1	341737116085501	3–1–94	204.41	5–23–96	203.97	.44	1,801	2,005	V	227	202–227	
–4F1	341725116090401	7–20–94	221.07	5–23–96	220.75	.32	1,801	2,022	V	240	215–240	
–4L1[1]	341709116090401	1–26–94	240.66	4–24–96	240.42	.24	1,801	2,042	V	591	571–591	
–4L2[1]	341709116090402	1–26–94	240.65	4–24–96	240.49	.16	1,801	2,042	V	380	360–380	
–4L3[1]	341709116090403	1–26–94	240.61	4–24–96	240.47	.14	1,801	2,042	V	285	245–285	
–5A1	341735116093101	3–2–94	237.65	5–23–96	238.23	–.58	1,801	2,039	V	259	234–259	
–7K1	341621116110601	3–22–94	441.34	4–23–96	440.96	.38	1,829	2,270	V	525	125–505	
–12P1	341600116055501	2–22–94	192.3	5–23–96	191.05	1.25	1,657	1,848	V	212	186–211	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
2N/9E–19R1[1]	341416116042501	1–26–94	220.77	1–14–96	220.53	0.24	1,548	1,768	V	460	440–460	
–19R2[1]	341416116042502	1–26–94	220.36	1–19–96	220.14	.22	1,548	1,768	V	310	290–310	
–19R3[1]	341416116042503	—	—	1–19–96	—	—	—	1,768	V	70	40–70	D
–20G1	341449116034201	1–26–94	373	1–25–96	372.95	.05	1,548	1,921	V	440	400–440	
–20N1[1]	341419116040401	1–26–94	223.44	4–24–96	224.25	–.81	1,547	1,771	V	450	430–450	
–20N2[1]	341419116040402	1–26–94	224.34	4–24–96	224.14	.2	1,547	1,771	V	270	250–270	
–20N3[1]	341419116040403	—	—	4–24–96	—	—	—	1,771	V	120	100–120	D
–28L1	341341116024901	1–26–94	343.96	1–31–96	344.02	–.06	1,547	1,891	V	397	367–387	
–29M1[1]	341340116040501	1–26–94	213.26	1–25–96	213.26	0	1,547	1,760	V	410	390–410	
–29M2[1]	341340116040502	1–25–94	185.62	1–25–96	185.3	.32	1,575	1,760	V	250	220–250	
–29M3[1]	341340116040503	1–25–94	75.13	1–25–96	75.36	–.23	1,685	1,760	V	90	70–90	PW
–29Q1	341323116033801	2–9–94	218.12	5–23–96	217.45	.67	1,548	1,765	V	239	213–238	
–29R1	341323116031601	2–23–94	220.67	5–23–96	220.01	.66	1,547	1,767	V	256	235.5–255.5	
–30P2	341323116045501	3–2–94	31.99	4–24–96	32.05	–.06	1,758	1,790	V	59	—	
–31C2	341321116050001	3–2–94	33	4–24–96	32.7	.3	1,762	1,795	V	—	—	
–32J1	341247116032601	3–22–94	72.9	5–23–96	73.02	–.12	1,685	1,758	V	86	65.5–85.5	PW
–32R1[1]	341232116032201	2–27–94	212.58	1–17–96	212.19	.39	1,547	1,759	V	470	450–470	
–32R2[1]	341232116032202	2–27–94	189.11	1–17–96	189.32	–.21	1,569	1,759	V	255	235–255	
–32R3[1]	341232116032203	2–27–94	65.27	1–17–96	65.76	–.49	1,693	1,759	V	80	60–80	PW
3N/3W–6F3	342230117140201	—	—	3–29–96	103.56	—	2,896	3,000	S	200	100–200	
–7E1	342141117141901	—	—	3–29–96	20.73	—	2,924	2,945	V	—	—	
3N/4E–3C1	342304116334401	5–24–94	92.1	4–22–96	92.28	–.18	2,748	2,840	V	137	107–137	
–4K2	342229116341001	5–16–94	155.78	5–15–96	155.8	–.02	2,759	2,915	S	510	360–510	
–5K1	342224116350101	5–25–94	173.9	4–22–96	173.91	–.01	2,756	2,930	V	211	166–206	O at 186
–12N1	342117116311501	5–25–94	180.15	5–8–96	188.07	–7.92	3,067	3,255	V	203	—	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
3N/4W–12G2	342154117144901	—	—	5–15–96	59.5	—	2,913	2,972	S	128	102–120	
–12Q1	342124117144401	—	—	3–29–96	88.69	—	2,911	3,000	S	—	—	
–31B2	341840117200501	—	—	5–17–96	9.65	—	3,200	3,210	S	—	—	
3N/5W–22E2	342006117235101	—	—	5–20–96	309.25	—	3,318	3,627	S	363	310–360	
3N/6E–2J1	342221116190801	3–29–94	161.63	5–23–96	162.8	–1.17	2,250	2,413	V	335	315–335	
–27B1	341925116202501	3–28–94	309.2	4–23–96	308.61	.59	2,334	2,643	V	415	395–415	
3N/7E–19N1	341939116174501	3–29–94	241.74	4–23–96	243	–1.26	2,245	2,488	V	334	275–295	
–20C1	342111116174801	3–29–94	198.55	4–23–96	199.68	–1.13	2,245	2,445	V	605	228–605	
–20M1	341952116164601	3–29–94	211.54	4–23–96	212.65	–1.11	2,245	2,458	V	295	275–295	
–27H1	341909116134101	3–29–94	407.05	4–23–96	407.57	–.52	1,832	2,240	V	572	472–572	
–28D1	341918116153001	3–24–94	230.57	4–23–96	232	–1.43	2,241	2,473	V	618	418–598	S, O at 398
–29G1	341912116160801	3–24–94	258.17	4–23–96	259.54	–1.37	2,241	2,501	V	351	312–348	
–31E1	341823116175001	3–24–94	254.32	5–23–96	252.5	1.82	2,262	2,514	V	401	300–401	
–32D3[1]	341829116164401	—	—	1–18–96	324.78	—	2,220	2,544	V	790	770–790	S
–32D4[1]	341829116164402	—	—	1–18–96	301.67	—	2,243	2,544	V	660	640–660	S
–32D5[1]	341829116164403	—	—	1–18–96	306.83	—	2,238	2,544	V	540	520–540	S
–32D6[1]	341829116164404	—	—	5–23–96	300.8	—	2,244	2,544	V	370	350–370	S
–34D1	341833116144201	8–22–94	27.32	5–23–96	272.69	–2.37	2,228	2,501	V	605	270–605	
–36G1	341809116115801	8–23–94	270.32	4–23–96	279.68	–9.36	1,831	2,111	V	399	384–399	S
3N/8E–17L1	342037116101101	3–29–94	47.81	5–23–96	47.62	.19	1,803	1,850	V	456	248–456	
–28P1[1]	341843116090401	1–26–94	30.9	4–24–96	30.69	.21	1,801	1,832	V	395	375–395	
–28P2[1]	341843116090402	1–26–94	30.85	4–24–96	30.61	.24	1,801	1,832	V	180	160–180	
–28P3[1]	341843116090403	1–26–94	30.81	4–24–96	30.63	.18	1,801	1,832	V	85	45–85	
–29C1	341918116101501	3–29–94	88.43	5–23–96	88.3	.13	1,803	1,891	V	800	500–684	
–31J1[1]	341801116104601	1–26–94	206.68	4–24–96	206.34	.34	1,830	2,036	V	390	370–390	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
3N/8E–31J2[1]	341801116104602	1–26–94	206.63	4–24–96	206.29	0.34	1,830	2,036	V	320	300–320	
–31J3[1]	341801116104603	1–26–94	206.59	4–24–96	206.27	.32	1,830	2,036	V	250	210–250	
–33N1	341751116092201	1–5–94	191.85	5–23–96	184.74	7.11	1,808	1,993	V	208	183–208	
–34D1	341823116082201	4–7–94	24.16	5–23–96	24.4	–.24	1,800	1,824	S	396	186	O at 40
4N/1E–2Q2	342732116504701	6–30–94	116.07	5–24–96	116.95	–.88	2,809	2,926	V	—	400	
–5P2	342736116540401	5–16–94	183.4	5–14–96	185.19	–1.79	2,725	2,910	S	—	—	
–9D4	342728116531901	10–7–94	190.28	4–15–96	178.88	11.4	2,746	2,925	V	300	180–300	
–13E1	342613116502201	7–22–94	161.04	5–24–96	152.58	8.46	2,847	3,000	V	505	220–488	O at 357
–15R1	342546116513901	8–29–94	195.03	4–16–96	195.5	–.47	2,867	3,062	S	405	240–340	
–17L1	342609116541001	5–18–93	157.63	5–14–96	161.58	–3.95	2,817	2,979	S	301	189–291	
–18C2	342627116551801	8–3–94	158.4	4–15–96	159.88	–1.48	2,820	2,980	S	200	120–200	
–20E1	342530116542101	10–7–94	136.1	4–16–96	128.9	7.2	2,891	3,020	V	280	—	
–20Q1	342501116535201	10–7–94	126.73	5–24–96	123.02	3.71	2,967	3,090	V	260	120–260	
–21C1	342545116530301	7–26–94	181.37	4–16–96	186.5	–5.13	2,877	3,063	V	—	165–384	
–27D1	342441116522201	10–7–94	248.15	4–16–96	245.4	2.75	2,980	3,225	V	425	240–418	
4N/1W–2J1	342744116565801	10–5–93	136.8	4–4–96	129.5	7.3	2,737	2,866	S	—	—	
–3K1	342755116580301	7–22–94	17.53	4–15–96	19.88	–2.35	2,840	2,860	V	405	—	
–7E1	342714117015601	7–26–94	44.5	4–4–96	43.2	1.3	2,907	2,950	S	—	—	
–7R1	342639117005501	7–26–94	18.29	4–4–96	19.03	–.74	2,917	2,936	S	130	—	
–10H1	342717116580001	10–6–93	12.69	4–4–96	12.73	–.04	2,897	2,910	S	—	—	
–10R1	342639116580001	11–18–93	17.41	4–15–96	18.25	–.84	2,928	2,946	V	189	—	
–13M3[1]	342610116564101	11–19–93	55.15	4–15–96	53.09	2.06	2,937	2,990	V	100	—	
–13M4[1]	342610116564102	—	—	4–15–96	54.3	—	2,936	2,990	S	200	—	
–13R1[1]	342544116555001	—	—	3–29–96	284.62	—	2,790	3,075	V	490	470–490	
–13R2[1]	342544116555002	—	—	3–29–96	274.45	—	2,801	3,075	V	380	360–380	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
4N/1W–13R3[1]	342544116555003	—	—	3–29–96	223.34	—	2,852	3,075	V	260	240–260	
–13R4[1]	342544116555004	—	—	3–29–96	—	—	—	3,075	V	130	110–130	D
–14A2	342629116564401	8–3–94	105.34	4–15–96	105.95	–0.61	2,856	2,962	V	—	—	
–18Q1	342544117011501	10–6–93	79.46	5–15–96	79.89	–.43	2,920	3,000	S	—	70–150	
–21G1	342519116591401	12–2–92	172.46	5–14–96	173.42	–.96	2,948	3,121	S	250	—	
–26J1	342416116564501	3–21–94	325.5	5–14–96	345	–19.5	3,077	3,422	R	470	415–470	
4N/2E–9N2	342643116471101	6–30–94	139.54	5–8–96	146.15	–6.61	2,889	3,035	V	—	—	
–13P1	342551116434301	6–29–94	108.1	5–8–96	107.93	.17	2,887	2,995	V	—	—	
–17H2	342612116471601	6–30–94	135.95	5–8–96	135.97	–.02	2,894	3,030	R	205	163–201	
4N/2W–4Q1	342728117053001	4–21–94	241.97	4–4–96	242.08	–.11	2,838	3,080	S	500	300–500	
–9Q1	342636117054201	—	—	11–15–96	314	—	2,851	3,165	R	420	0–396	
–12N2	342637117025401	7–26–94	104.75	4–4–96	92.98	11.77	2,910	3,003	S	192	60–192	
–16E1	342618117060701	12–7–93	341.12	5–15–96	338.35	2.77	2,852	3,190	V	380	325–375	
4N/3E–7G1	342708116422401	6–29–94	64.3	5–9–96	63.92	.38	2,831	2,895	V	97	95–97	
–15J1	342600116385101	6–29–94	82.64	5–8–96	82.07	.57	2,781	2,863	V	89	87–89	
–16D1	342631116405301	6–29–94	101.56	5–9–96	101.53	.03	2,783	2,885	S	200	—	
–23G1	342517116380601	6–29–94	72.72	5–8–96	72.5	.22	2,778	2,850	S	154	76–150	O at 107
–30C1	342448116424601	6–29–94	198.18	5–9–96	197.8	.38	2,882	3,080	V	—	—	
4N/3W–1C3	342814117090301	4–21–94	207.95	4–5–96	205.94	2.01	2,801	3,007	S	300	—	
–1M1	342744117091101	4–21–94	240.35	4–4–96	235.29	5.06	2,810	3,045	V	—	—	
–4H1	342757117113901	—	—	3–16–96	203.45	—	2,792	2,995	R	404	—	
–7N1	342641117141601	—	—	3–29–96	45.35	—	2,813	2,858	V	—	—	
–12A1[1]	342726117082401	4–19–94	303.22	3–29–96	299.32	3.9	2,823	3,122	V	600	580–600	
–12A2[1]	342726117082402	—	—	3–29–96	298.31	—	2,824	3,122	V	345	325–345	
–12A3[1]	342726117082403	—	—	3–29–96	—	—	—	3,122	V	270	250–270	D

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
4N/3W–12D1	342724117090301	4–19–94	280.16	4–3–96	282.89	–2.73	2,807	3,090	V	320	245–308	
–15C1	342630117104501	11–15–93	271.21	5–16–96	266.27	4.94	2,810	3,076	S	390	330–390	
–17E3	342613117132601	4–21–94	58.34	4–4–96	49.99	8.35	2,815	2,865	S	—	—	
–17M1	342554117132601	—	—	5–16–96	51.62	—	2,808	2,860	V	—	—	
–18B1	342631117134501	—	—	3–29–96	49.21	—	2,811	2,860	V	—	—	
–19G2[1]	342514117134801	—	—	3–29–96	57.24	—	2,824	2,881	V	600	580–600	
–19G3[1]	342514117134802	—	—	3–29–96	58.51	—	2,822	2,881	V	375	355–375	
–19G4[1]	342514117134803	—	—	3–29–96	56.48	—	2,825	2,881	V	195	175–195	
–19G5[1]	342514117134804	—	—	3–29–96	43	—	2,838	2,881	V	95	75–95	
–19G6[1]	342514117134805	9–24–93	54.22	3–29–96	40.94	13.28	2,840	2,881	V	55	45–55	D
–19M1	342516117141801	—	—	3–29–96	79.67	—	2,820	2,900	V	—	153–173	
–30A6	342436117133801	11–17–92	77	5–21–96	57.98	19.02	2,836	2,894	S	123	70–120	R
–31L6[1]	342318117141101	—	—	3–29–96	34	—	2,888	2,922	V	550	530–550	
–31L7[1]	342318117141102	—	—	3–29–96	41.2	—	2,881	2,922	V	380	360–380	
–31L8[1]	342318117141103	—	—	3–29–96	41.74	—	2,880	2,922	V	260	240–260	
–31L9[1]	342318117141104	12–30–92	62.74	3–29–96	40.23	22.51	2,882	2,922	V	140	120–140	
4N/4E–17C1	342620116351701	5–25–94	38.95	4–22–96	38.83	.12	2,696	2,735	V	61	59–61	O at 54
–19B1	342533116360801	5–25–94	38.05	4–22–96	37.99	.06	2,737	2,775	V	120	—	
–29D1	342446116354101	5–24–94	29.96	4–22–96	29.93	.03	2,740	2,770	V	47	45–47	
–32Q1	342306116350301	5–24–94	80.02	4–22–96	79.85	.17	2,745	2,825	V	490	119–12.5	
–36B1	342350116305801	5–24–94	63.22	4–22–96	63.39	–.17	2,567	2,630	V	72	70–72	
4N/4W–1A2	342813117143102	3–24–94	42.13	9–10–96	57	–14.87	2,779	2,836	A	275	130–275	
–1C2[1]	342814117150501	—	—	3–28–96	14.61	—	2,803	2,818	V	620	600–620	
–1C3[1]	342814117150502	—	—	3–28–96	37.63	—	2,780	2,818	V	330	310–330	
–1C4[1]	342814117150503	—	—	3–28–96	35.95	—	2,782	2,818	V	190	170–190	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
4N/4W–1C5[1]	342814117150504	11–19–92	39.25	4–29–96	30.07	9.18	2,788	2,818	V	80	60–80	
–1D2	342815117152701	11–18–92	41.1	4–1–96	29.96	11.14	2,797	2,827	V	50	—	
–1R1	342729117144501	11–19–92	50.52	3–28–96	37.44	13.08	2,808	2,845	V	—	—	
–3A2[1]	342805117164501	—	—	3–29–96	178.66	—	2,804	2,983	V	790	770–790	
–3A3[1]	342805117164502	—	—	3–29–96	204.02	—	2,779	2,983	V	510	490–510	
–3A4[1]	342805117164503	—	—	2–29–96	203.03	—	2,780	2,983	V	360	340–360	
–3A5[1]	342805117164504	3–9–94	207.23	3–29–96	204.12	3.11	2,779	2,983	V	235	195–235	
–8N2	342639117194001	12–1–93	435	4–1–96	434	1	2,784	3,218	R	900	600–900	
–24P3	342450117151201	—	—	5–16–96	186.23	—	2,820	3,006	V	605	245–605	R
–36Q1	342305117145201	—	—	3–29–96	42.34	—	2,881	2,923	V	—	—	
4N/5W–1C1	342813117212901	—	—	3–29–96	436	—	2,774	3,210	R	—	—	
–2H1	342749117214801	—	—	3–29–96	481	—	2,784	3,265	R	—	—	
–21H1	342519117240701	—	—	2–20–96	646.6	—	2,883	3,530	V	670	—	
4N/6E–27D1	342429116205601	—	—	5–23–96	69.57	—	2,253	2,323	V	—	—	
4N/6W–23M1	342503117290301	3–8–94	980.08	4–5–96	1001	–20.92	2,919	3,920	V	1,030	—	
5N/1E–17D1	343153116542301	12–17–92	158.05	8–7–96	157	1.05	2,723	2,880	V	—	—	
–32B2	342910116534801	7–22–94	169.84	5–16–96	162.9	6.94	2,707	2,870	V	465	240–400	S
–32L1	342837116540401	12–2–92	160.2	5–24–96	159.2	1	2,711	2,870	V	200	—	
–35F3	342851116510701	6–30–94	154.85	5–8–96	156.1	–1.25	2,786	2,942	V	250	210–250	
5N/1W–12H2	343219116553701	7–21–94	151.16	5–17–96	175.52	–24.36	2,696	2,872	S	230	80–230	
–25G1	342943116555201	7–22–94	132.08	5–15–96	130.28	1.8	2,720	2,850	S	200	164–200	
–28F1	342948116593301	7–22–94	35.77	5–17–96	36.25	–.48	2,829	2,865	S	—	—	
–31C1	342916117012601	7–26–94	218.7	5–17–96	229.3	–10.6	2,851	3,080	S	252	—	
–36R1	342826116553901	7–22–94	156.98	5–16–96	143.5	13.48	2,718	2,861	V	468	148–468	O at 345
5N/2W–32Q1	342826117063201	—	—	5–15–96	184.87	—	2,829	3,014	S	315	250–295	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
5N/3W–4P1	343239117120101	5–18–94	145.69	5–14–96	149.64	–3.95	2,760	2,910	S	240	80–240	
–5R3	343218117123401	—	—	5–14–96	110.15	—	2,794	2,904	S	150	—	
–22G1	343035117104901	11–18–92	142.69	3–13–96	138.75	3.94	2,796	2,935	R	384	180–384	
–22J1	343015117102301	11–17–93	133.18	5–16–96	130.85	2.33	2,803	2,934	V	347	—	
–23B1	343053117094401	4–19–93	113.77	4–5–96	115.28	–1.51	2,801	2,916	V	153	90–153	
–23R1	343005117092301	1–5–93	126.56	5–16–96	127.18	–.62	2,803	2,930	V	264	—	
–27E3[1]	342938117111901	—	—	5–14–96	153.79	—	2,796	2,950	V	237	232–236.5	
–27E4[1]	342938117111902	—	—	5–20–96	153.59	—	2,796	2,950	V	194	189–194	
–27E5[1]	342938117111903	—	—	5–14–96	151.43	—	2,799	2,950	S	168	163–168	
–27E6[1]	342938117111904	—	—	5–20–96	147.35	—	2,803	2,950	S	148	143–148	
–30A1[1]	342959117133001	—	—	5–14–96	175.99	—	2,784	2,960	V	285	270–280	
–30A2[1]	342959117133002	—	—	5–14–96	175.75	—	2,784	2,960	V	233	218–228	
–30A3[1]	342959117133003	11–18–92	182.97	5–14–96	173.9	9.07	2,786	2,960	V	200	185–195	
5N/4W–3P3	343239117172401	11–18–92	9.98	3–28–96	10.74	–.76	2,699	2,710	V	—	—	
–6R1	343239117194801	—	—	4–12–96	151.9	—	2,708	2,860	R	—	—	R
–8Q1	343146117190401	1–5–94	183.9	4–12–96	161.2	22.7	2,733	2,895	V	400	142–360	
–11P1	343150117151501	—	—	—	—	—	—	2,788	—	65	—	H
–11P3	343150117151502	11–23–92	58.94	5–22–96	59.56	–.62	2,728	2,788	S	130	—	
–13N1	343054117152901	—	—	3–29–96	66.83	—	2,743	2,810	V	—	—	
–14D1[1]	343145117163501	—	—	3–28–96	7.94	—	2,742	2,750	R	340	320–340	
–14D2[1]	343145117163502	—	—	3–28–96	.74	—	2,749	2,750	R	200	180–200	
–14D3[1]	343145117163503	—	—	3–28–96	12.44	—	2,738	2,750	R	100	80–100	
–14D4[1]	343145117163504	11–19–92	18.37	3–28–96	14.42	3.95	2,736	2,750	R	50	30–50	
–15K1	343111117165801	11–18–92	4.73	4–4–96	2.35	2.38	2,743	2,745	S	600	200–600	
–20J3	343023117185501	—	—	4–12–96	183.3	—	2,747	2,930	R	—	—	R

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
5N/4W–23B1	343046117155801	—	—	1–16–96	2.07	—	2,748	2,750	S	10	0–9.5	
–25Q1	342916117145501	11–18–92	15.91	3–28–96	12.76	3.15	2,787	2,800	V	100	—	
–34N1	342825117173301	—	—	4–12–96	231.4	—	2,769	3,000	R	—	—	R
–35J2	342840117153301	11–19–92	74.73	3–28–96	54.41	20.32	2,761	2,815	V	400	100–400	
5N/5W–22E1	343027117235201	—	—	—	—	—	—	3,121	—	340	—	H
–22E2	343027117235001	9–9–91	354.99	4–10–96	356.52	–1.53	2,765	3,122	S	510	—	
–35C3	342904117223501	—	—	3–29–96	441	—	2,764	3,205	R	—	—	
–35J1	342835117220301	—	—	3–29–96	432	—	2,778	3,210	R	—	—	
5N/6W–12E2	343213117275301	11–15–90	178	5–16–96	180.15	–2.15	2,880	3,060	S	400	230–400	
–22E1[1]	343030117300901	—	—	3–28–96	352.16	—	2,908	3,260	V	750	730–750	
–22E2[1]	343030117300902	—	—	3–28–96	357.99	—	2,902	3,260	V	565	545–565	
–22E3[1]	343030117300903	6–8–94	349.29	3–28–96	353.61	–4.32	2,906	3,260	V	400	380–400	
–36R1	342814117271801	—	—	3–29–96	527	—	2,895	3,422	R	672	480–672	
5N/7W–17D1	343139117383101	11–13–92	308.56	5–29–96	301.35	7.21	2,924	3,225	S	—	—	
–28L1	342923117370601	—	—	4–10–96	543.85	—	2,961	3,505	V	626	606–626	
6N/1W–5J1	343802116595901	3–21–94	115.35	5–17–96	115.72	–.37	3,104	3,220	S	—	—	
–22P1	343513116582201	7–21–94	150.46	5–17–96	149.45	1.01	2,910	3,059	S	350	—	
–27B1	343500116581401	7–21–94	141.56	5–17–96	144.8	–3.24	2,895	3,040	S	—	—	
–27R1	343417116574501	7–21–94	182.72	5–17–96	187.83	–5.11	2,850	3,038	S	354	168–288	
–36J1	343338116553801	7–21–94	197.53	5–17–96	192.9	4.63	2,755	2,948	S	266	226–266	
6N/3W–8N1	343708117132401	1–5–93	74.62	5–14–96	73.16	1.46	2,999	3,072	S	—	—	
–9M1	343722117122001	4–11–94	22.74	4–3–96	22.57	.17	3,055	3,078	V	72	—	
–15Q1	343605117103101	10–5–93	114.97	5–14–96	113.43	1.54	3,019	3,132	S	230	140–230	
–17B3	343655117124601	4–11–94	67.94	4–3–96	68.29	–.35	2,974	3,042	V	—	—	
–32R3	343328117122401	1–5–93	175.1	4–3–96	165.99	9.11	2,756	2,922	S	197	166–196	R

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS Identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
6N/3W–34N4	343326117111701	4–11–94	164.3	4–3–96	184.51	–20.21	2,735	2,920	S	—	—	
6N/4W–6D13	343833117203801	—	—	4–9–96	51.14	—	2,529	2,580	V	86	—	
–7M3	343718117203301	—	—	4–9–96	32.56	—	2,563	2,596	V	83	—	
–19C8	343551117202301	—	—	4–9–96	12.47	—	2,603	2,615	V	—	—	
–19E2	343549117203601	—	—	4–9–96	18.6	—	2,576	2,595	S	—	—	P, N
–19K1	343530117200401	—	—	4–9–96	6.04	—	2,619	2,625	V	—	—	
–29M1	343433117194201	11–19–92	10.2	3–29–96	9.54	.66	2,650	2,660	V	—	—	
–30G4	343446117201201	8–5–93	20.73	5–14–96	20.45	.28	2,630	2,650	V	221	—	S
–30J2	343435117195501	—	—	2–14–96	8.24	—	2,612	2,620	S	25	14.5–24.5	S
–30P5	343430117202401	—	—	3–29–96	65.11	—	2,585	2,650	V	—	192–420	
–33N1	343337117183101	11–18–92	10.12	3–28–96	10.84	–.72	2,669	2,680	S	—	—	
–34E2	343351117173202	2–21–93	55.8	3–13–96	60.9	–5.1	2,675	2,736	R	—	144–324	
–34M8	343343117172601	11–18–92	57.19	3–28–96	58.35	–1.16	2,672	2,730	S	—	130–179	
6N/5W–1J1	343805117205101	11–16–92	14.08	3–28–96	17.95	–3.87	2,552	2,570	V	—	—	
–1K1	343815117211101	—	—	2–21–96	7.62	—	2,544	2,552	V	25	15–25	
–1L1[1]	343815117211901	—	—	2–22–96	7.34	—	2,545	2,553	V	103	93–103	
–1L2[1]	343815117211902	—	—	2–28–96	11.4	—	2,542	2,553	V	25	15–25	
–2Q1	343757117221001	11–19–92	220.23	5–21–96	216.32	3.91	2,584	2,800	V	247	202–244	
–3Q2	343752117232501	12–8–92	206.33	5–16–96	206.88	–.55	2,585	2,792	S	256	—	
–4K1	343806117241601	3–9–94	91.49	4–3–96	91.31	.18	2,679	2,770	S	—	—	
–6R3	343756117260701	3–10–94	77.96	4–3–96	68.47	9.49	2,696	2,764	V	—	—	
–12F1	343726117213001	—	—	3–13–96	72.2	—	2,576	2,648	V	—	68–78	
–12G2[1]	343733117210801	—	—	3–14–96	11.95	—	2,559	2,571	V	—	93–103	
–12G3[1]	343733117210802	—	—	3–14–96	11.67	—	2,559	2,570	V	—	15–25	
–12H1	343723117205501	11–25–92	14.66	5–15–96	19.72	–5.06	2,560	2,580	V	150	30–150	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
6N/5W–12K1	343710117211701	—	—	4–9–96	13.32	—	2,576	2,589	V	60	—	
–12K2	343719117211701	—	—	3–13–96	7.4	—	2,571	2,578	V	57	—	N
–12L5	343721117213001	—	—	3–13–96	58.14	—	2,578	2,636	V	—	64–74	N
–12P2	343704117212801	—	—	4–9–96	34.45	—	2,581	2,615	V	43	—	
–12Q2	343659117211701	—	—	4–9–96	21.97	—	2,580	2,602	V	45	—	N
–13B1[1]	343655117210701	—	—	5–14–96	5.86	—	2,574	2,580	V	—	93–103	
–13B2[1]	343655117210702	—	—	5–14–96	6.03	—	2,574	2,580	V	—	15–25	
–13G4	343632117211201	—	—	4–9–96	31.64	—	2,585	2,616	V	38	—	
–13G6	343637117211102	—	—	4–9–96	14.96	—	2,584	2,599	V	18	—	
–20A1	343602117251001	3–10–94	234.05	4–3–96	234.76	–0.71	2,587	2,822	V	—	—	
–24P3	343522117212101	—	—	3–26–96	277.53	—	2,583	2,861	V	294	274–294	
–34E3	343358117235701	—	—	4–8–96	327.32	—	2,588	2,915	V	—	—	
–34F1	343358117232801	—	—	4–8–96	330.08	—	2,588	2,918	S	—	—	
6N/6W–6Q3	343801117324401	5–21–93	114	4–3–96	121.9	–7.9	2,773	2,895	S	150	—	
–13R1[1]	343607117271201	6–22–93	55.99	5–16–96	55.33	.66	2,762	2,817	V	—	—	
–13R2[1]	343607117271202	—	—	5–16–96	55.75	—	2,761	2,817	V	—	—	
–14L1	343631117285801	11–15–92	142.98	4–3–96	143.62	–.64	2,665	2,809	S	280	—	
–21J2	343534117303001	5–27–91	133.03	5–16–96	129.98	3.05	2,756	2,886	V	200	110–200	
–21L2	343532117305902	4–1–94	92.65	4–3–96	92.49	.16	2,803	2,895	S	—	—	
–30M1	343435117333301	11–15–92	118.34	5–16–96	119.25	–.91	2,873	2,992	S	—	—	
6N/7W–9L1	343726117372201	4–28–93	76.43	4–3–96	79.95	–3.52	2,782	2,862	V	172	130–142	
–10P2	343712117361701	10–30–91	37.49	5–22–96	38.99	–1.5	2,825	2,864	S	320	70–320	O at 260
–18N1	343613117394101	4–28–93	66.65	4–3–96	67.31	–.66	2,848	2,915	V	160	—	
–21A2	343606117365601	11–1–90	70.64	5–16–96	72.72	–2.08	2,836	2,909	S	200	80–194	
7N/4W–6N1	344318117204701	11–19–92	69.61	3–28–96	38.72	30.89	2,451	2,490	V	—	74–452	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
7N/4W–7B3	344259117201001	11–17–92	26.63	3–28–96	19.01	7.62	2,451	2,470	V	—	—	
–19Q5[1]	344030117201101	—	—	4–9–96	67.75	—	2,522	2,590	V	594	534–574	
–19Q6[1]	344030117201102	—	—	4–9–96	79.75	—	2,510	2,590	V	276	256–276	
–19Q7[1]	344030117201103	11–16–92	87.03	4–9–96	87.83	–.8	2,502	2,590	V	150	130–150	
–30C1	344026117202301	—	—	4–9–96	60.82	—	2,500	2,561	V	73	—	
–30E1	344004117204301	—	—	4–9–96	30.24	—	2,505	2,535	V	—	—	
–31D3	343934117204801	—	—	4–9–96	28.7	—	2,514	2,543	V	42	—	
–31E3	343918117203301	—	—	4–9–96	48.47	—	2,527	2,575	S	200	—	
–31L1	343858117202801	—	—	3–28–96	101.71	—	2,518	2,620	V	—	—	
7N/5W–5D2	344346117260101	11–20–92	293.62	5–16–96	321.58	–27.96	2,398	2,720	S	402	—	
–13H1[1]	344159117205701	—	—	3–14–96	14.15	—	2,461	2,475	V	100	90–100	
–13H2[1]	344159117205702	—	—	3–14–96	1.16	—	2,474	2,475	V	25	15–25	
–23R1[1]	344036117215201	—	—	3–28–96	283.02	—	2,442	2,725	R	740	700–740	
–23R2[1]	344036117215202	—	—	3–28–96	283.74	—	2,441	2,725	R	510	490–510	
–23R3[1]	344036117215203	—	—	3–28–96	239.46	—	2,486	2,725	R	315	295–315	
–23R4[1]	344036117215204	—	—	2–29–96	—	—	—	2,725	R	92	57–92	D
–24P4	344029117213601	—	—	3–28–96	10.5	—	2,500	2,510	S	—	—	
–24R5[1]	344028117210601	—	—	4–9–96	72	—	2,433	2,505	V	550	510–550	
–24R6[1]	344028117210602	—	—	4–9–96	69.91	—	2,435	2,505	V	285	265–285	
–24R7[1]	344028117210603	—	—	4–9–96	29.35	—	2,476	2,505	V	150	130–150	
–24R8[1]	344028117210604	11–16–92	9.98	4–9–96	9.33	.65	2,496	2,505	V	50	45–50	
–25K6	343955117211201	—	—	4–9–96	8.71	—	2,514	2,523	V	240	—	
–25R4	343945117205801	—	—	3–28–96	10.25	—	2,520	2,530	V	—	65–85	
–25R5	343946117205001	—	—	4–9–96	22.14	—	2,514	2,536	V	32	—	
–34G1	343909117232201	3–9–94	176.15	4–4–96	172.1	4.05	2,574	2,746	V	500	—	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
8N/3W–4A7	344859117113001	11–19–92	17.55	3–27–96	11.6	5.95	2,263	2,275	S	50	—	
–5J1	344841117125301	11–24–92	12.74	5–23–96	6.07	6.67	2,284	2,290	S	115	60–115	
–8F1	344803117125101	11–18–92	33.76	3–27–96	22.72	11.04	2,292	2,315	V	—	—	
–19Q1	344547117134201	11–14–92	173.52	4–17–96	173.25	.27	2,341	2,514	V	—	—	
8N/4E–10E1	344810116331201	4–20–93	21.33	5–2–96	25.18	–3.85	1,757	1,782	V	180	100–140	
8N/4W–9R1	344733117173801	—	—	5–21–96	67.82	—	2,299	2,367	V	200	—	
–10Q1	344728117165001	11–17–92	24.84	3–27–96	11.51	13.33	2,343	2,355	V	—	—	
–12C1	344818117151501	11–19–92	46.7	3–28–96	34.28	12.42	2,316	2,350	V	—	—	
–12Q1	344728117145601	11–17–92	26.38	3–27–96	13.42	12.96	2,316	2,329	V	49	—	
–19G1[1]	344611117200801	—	—	3–27–96	70.11	—	2,388	2,458	V	315	295–315	
–19G2[1]	344611117200802	—	—	3–27–96	70.19	—	2,388	2,458	R	240	220–240	
–19G3[1]	344611117200803	—	—	4–29–96	69.69	—	2,388	2,458	V	170	150–170	
–19G4[1]	344611117200804	—	—	4–29–96	70	—	2,388	2,458	V	100	80–100	
–20Q7[1]	344546117190101	—	—	3–27–96	6.84	—	2,390	2,397	V	460	440–460	
–20Q8[1]	344546117190102	—	—	3–27–96	6.53	—	2,391	2,397	V	350	330–350	
–20Q9[1]	344546117190103	—	—	3–27–96	5.81	—	2,391	2,397	V	270	250–270	
–20Q10[1]	344546117190104	—	—	3–27–96	5.8	—	2,392	2,397	V	160	140–160	
–20Q11[1]	344546117190105	—	—	3–27–96	6.75	—	2,391	2,397	V	50	30–50	
–21M1[1]	344609117182901	—	—	3–27–96	12.25	—	2,373	2,385	V	370	350–370	
–21M2[1]	344609117182902	—	—	3–27–96	9.66	—	2,375	2,385	V	230	210–230	
–21M3[1]	344609117182903	—	—	3–27–96	6.38	—	2,379	2,385	V	140	120–140	
–21M4[1]	344609117182904	9–24–93	9.49	3–27–96	6.5	2.99	2,379	2,385	V	40	30–40	
–23Q1	344544117154601	11–15–90	172.5	5–14–96	171.88	.62	2,317	2,489	S	253	153–253	
–24J2	344557117143701	11–14–92	164.99	4–8–96	166.37	–1.38	2,312	2,478	S	360	—	
–29E3[1]	344524117193401	—	—	4–29–96	19.39	—	2,390	2,409	V	309	289–309	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
8N/4W–29E4[1]	344524117193402	—	—	4–29–96	18.96	—	2,391	2,409	V	210	190–210	
–29E5[1]	344524117193403	—	—	4–29–96	18.21	—	2,391	2,409	V	130	110–130	
–29E6[1]	344524117193404	—	—	4–29–96	11.83	—	2,398	2,409	V	40	30–40	
–31R1	344401117194701	—	—	3–28–96	24.5	—	2,425	2,449	S	—	—	
8N/6W–9A1	344819117302801	11–21–92	127.69	5–21–96	127.65	0.04	2,637	2,765	V	240	—	
–15J1	344658117293501	11–21–92	158.44	5–21–96	158.41	.03	2,651	2,809	V	294	—	
–27H1	344520117293101	10–26–92	165.01	4–18–96	163.57	1.44	2,768	2,932	V	403	383–403	
9N/1E–4K1[1]	345356116523001	—	—	3–26–96	152.47	—	1,813	1,965	V	470	450–470	
–4K2[1]	345356116523002	—	—	3–26–96	152.22	—	1,813	1,965	V	340	320–340	
–4K3[1]	345356116523003	9–21–93	142.62	3–26–96	151.2	–8.58	1,814	1,965	V	195	175–195	
–6E1	345413116552201	4–22–93	251.85	4–24–96	277	–25.15	1,822	2,099	V	480	—	
–6H2	345410116544101	—	—	5–13–96	131.94	—	1,848	1,980	S	320	—	
–10L1	345304116515801	1–11–94	137.75	—	—	—	—	1960	V	428	—	
–10Q2[1]	345259116514201	—	—	3–26–96	143.29	—	1,805	1,948	V	550	530–550	
–10Q3[1]	345259116514202	—	—	3–26–96	144.04	—	1,804	1,948	V	350	330–350	
–10Q4[1]	345259116514203	9–21–93	134.37	3–26–96	144.08	–9.71	1,804	1,948	V	200	180–200	
–15H1	345230116512101	11–20–92	132.54	3–26–96	134.92	–2.38	1,825	1,960	V	—	—	
–15N3	345207116520801	11–17–92	151.82	3–26–96	162.86	–11.04	1,807	1,970	V	—	120–200	
–16F1[1]	345224116525701	—	—	3–26–96	127.11	—	1,823	1,950	V	410	390–410	
–16F2[1]	345224116525702	—	—	3–26–96	127.55	—	1,822	1,950	V	340	320–340	
–16F3[1]	345224116525703	—	—	4–29–96	127.99	—	1,822	1,950	V	250	230–250	
–16F4[1]	345224116525704	9–21–93	108.85	3–26–96	130.01	–21.16	1,820	1,950	V	150	130–150	
–19J1	345126116543301	4–23–93	178.67	4–22–96	181.5	–2.83	1,963	2,144	S	415	180–218	O at 323
–22B6	345151116515201	11–17–92	148.18	3–26–96	159.33	–11.15	1,816	1,975	V	200	—	
–23J1	345127116502701	11–17–92	169.02	3–26–96	171.21	–2.19	1,809	1,980	V	—	—	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
9N/1W–4J8	345345116585401	11–20–92	37.92	3–26–96	9.62	28.3	2,040	2,050	V	—	—	
–4M5[1]	345351116593302	—	—	3–26–96	29.32	—	2,041	2,070	V	250	230–250	
–4M6[1]	345351116593303	—	—	3–26–96	29.65	—	2,040	2,070	V	160	140–160	
–4M7[1]	345351116593304	1–28–93	28.17	3–26–96	29.32	–1.15	2,041	2,070	V	80	40–80	
–4R2[1]	345339116584501	—	—	3–26–96	7.48	—	2,038	2,045	V	280	260–280	
–4R3[1]	345339116584502	—	—	3–26–96	10.1	—	2,035	2,045	V	140	120–140	
–4R4[1]	345339116584503	—	—	3–26–96	9.98	—	2,035	2,045	V	40	20–40	
–9D5[1]	345328116594301	—	—	3–26–96	19.83	—	2,074	2,094	V	500	480–500	
–9D6[1]	345328116594302	—	—	3–26–96	27.33	—	2,067	2,094	V	300	280–300	
–9D7[1]	345328116594303	—	—	3–26–96	37.53	—	2,056	2,094	V	190	170–190	
–9D8[1]	345328116594304	2–11–93	54.17	3–26–96	47.16	7.01	2,047	2,094	V	80	60–80	
–10E4	345304116584201	—	—	5–14–96	20.77	—	2,039	2,060	S	102	99.6–101.6	
–10J12[1]	345251116574201	—	—	3–26–96	13.71	—	2,020	2,034	V	610	590–610	
–10J13[1]	345251116574202	—	—	3–26–96	14.69	—	2,019	2,034	V	370	350–370	
–10J14[1]	345251116574203	—	—	3–26–96	12.11	—	2,021	2,034	V	200	180–200	
–10J15[1]	345251116574204	11–16–92	21.77	3–26–96	11.6	10.17	2,022	2,034	V	100	80–100	
–11K12[1]	345254116570401	—	—	3–26–96	8.29	—	2,014	2,022	V	590	570–590	
–11K13[1]	345254116570402	—	—	3–26–96	8.58	—	2,014	2,022	V	315	295–315	
–11K14[1]	345254116570403	—	—	3–26–96	6.49	—	2,016	2,022	V	180	160–180	
–11K15[1]	345254116570404	11–16–92	14.57	3–26–96	6.55	8.02	2,016	2,022	V	90	70–90	
–11M11	345254116572404	—	—	5–14–96	4.27	—	2,011	2,015	S	75	35–75	
–11R1[1]	345243116563801	—	—	5–14–96	20.69	—	2,011	2,032	S	52	50–52	
–11R2[1]	345243116563802	—	—	5–14–96	22.58	—	2,010	2,033	S	—	100–102	
–12L2[1]	345251116560601	—	—	3–26–96	9.89	—	1,992	2,002	V	450	430–450	
–12L3[1]	345251116560602	—	—	3–26–96	9.25	—	1,993	2,002	V	320	300–320	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
9N/1W–12L4[1]	345251116560603	—	—	3–26–96	9.25	—	1,993	2,002	V	185	165–185	
–12L5[1]	345251116560604	11–16–92	24.27	3–26–96	8.39	15.88	1,994	2,002	V	80	60–80	
–12N4[1]	345242116562101	—	—	3–26–96	17.19	—	1,993	2,010	V	640	620–640	
–12N5[1]	345242116562102	—	—	3–26–96	10.83	—	1,999	2,010	V	310	290–310	
–12N6[1]	345242116562103	—	—	3–26–96	11.21	—	1,999	2,010	V	170	150–170	
–12N7[1]	345242116562104	11–16–92	26.74	3–26–96	10.82	15.92	1,999	2,010	V	80	60–80	
–13B2	345228116560001	11–24–92	28.78	5–15–96	13.58	15.2	1,986	2,000	S	110	30–110	
–13B3[1]	345225116555001	—	—	5–15–96	8.79	—	1,986	1,995	S	60	45–50	
–13B4[1]	345225116555002	—	—	5–15–96	8.45	—	1,987	1,995	S	120	105–110	
–13H2	345214116554001	—	—	5–15–96	16.02	—	1,984	2,000	S	108	65–108	
–15Q2	345145116575802	—	—	4–22–96	211.17	—	2,039	2,250	V	290	288–290	
–27D1	345045116582701	6–24–93	422.75	5–2–96	422.02	.73	2,058	2,480	V	568	546–548	O at 508
9N/2E–3E2	345408116460101	11–16–92	66.48	3–26–96	71.42	–4.94	1,804	1,875	S	120	40–120	
–3G6[1]	345416116451601	—	—	3–26–96	105.06	—	1,743	1,848	V	600	580–600	
–3G7[1]	345416116451602	—	—	3–26–96	104.96	—	1,743	1,848	V	490	470–490	
–3G8[1]	345416116451603	—	—	3–26–96	102.54	—	1,745	1,848	V	300	280–300	
–3G9[1]	345416116451604	—	—	3–26–96	10.9	—	1,747	1,848	V	140	120–140	
–3K5[1]	345404116451801	—	—	3–26–96	52.29	—	1,801	1,853	V	650	630–650	
–3K6[1]	345404116451802	—	—	3–26–96	51.57	—	1,801	1,853	V	510	490–510	
–3K7[1]	345404116451803	—	—	3–26–96	51.06	—	1,802	1,853	V	340	320–340	
–3K8[1]	345404116451804	—	—	3–26–96	49.43	—	1,804	1,853	V	210	190–210	
–3K9[1]	345404116451805	—	—	3–26–96	46.82	—	1,806	1,853	V	65	45–65	
–7Q1	345249116483401	11–23–92	124.46	5–15–96	131.03	–6.57	1,800	1,931	S	360	100–350	
–9L1	345303116463801	11–17–92	93.59	5–1–96	99.55	–5.96	1,805	1,905	V	—	—	
–11C3	345334116442801	11–23–92	126.26	5–14–96	130.41	–4.15	1,748	1,878	S	190	50–190	R

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
9N/2E–11H3	345316116441003	—	—	5–14–96	78.38	—	1,787	1,865	S	160	60–160	
–11Q1	345248116442401	11–16–92	75.5	5–1–96	83.58	–8.08	1,791	1,875	V	160	90–130	
–12A4	345330116425501	11–16–92	101.74	3–26–96	110.64	–8.9	1,734	1,845	S	—	80–200	
–12F4	345314116433701	12–10–92	115.05	4–22–96	119.68	–4.63	1,735	1,855	V	220	120–220	R
–30B2	345052116484001	4–21–93	161.99	5–2–96	170.26	–8.27	1,795	1,965	V	294	40–294	
9N/2W–1A2	345416117014601	11–17–92	89.27	3–27–96	36.94	52.33	2,068	2,105	V	120	80–110	
–2B5	345421117031101	11–19–92	93.47	3–27–96	43.27	50.2	2,087	2,130	V	—	—	
–2E1	345407117034701	—	—	3–27–96	42.8	—	2,097	2,140	V	160	140–160	
–3A1[1]	345421117035301	—	—	3–27–96	40.59	—	2,098	2,139	V	120	100–120	O at 55
–3A2[1]	345421117035302	—	—	3–27–96	40.07	—	2,099	2,139	V	120	35–55	
–3D3	345419117044601	—	—	5–22–96	48.29	—	2,107	2,155	S	160	80–160	
–3E1[1]	345406117044001	—	—	3–27–96	42.94	—	2,107	2,150	V	230	210–230	
–3E2[1]	345406117044002	—	—	3–27–96	42.99	—	2,107	2,150	V	185	165–185	
–3E3[1]	345406117044003	—	—	3–27–96	42.34	—	2,108	2,150	V	120	100–120	
–4D1	345418117055701	11–17–92	99.33	3–27–96	53.65	45.68	2,116	2,170	V	—	50–185	
–4Q10	345344117052601	11–18–92	95.4	3–27–96	53.99	41.41	2,111	2,165	V	—	90–150	
–5N7	345339117065001	—	—	5–15–96	61.96	—	2,122	2,184	S	195	—	
–5N8	345344117065901	11–18–92	101.9	5–15–96	60.77	41.13	2,123	2,184	S	—	—	
–6A4	345422117071001	—	—	5–13–96	63.48	—	2,118	2,181	S	300	80–300	R
–6H6	345402117070401	—	—	3–27–96	58.67	—	2,121	2,180	V	99	95–99	
–6L8	345350117074601	11–18–92	105.26	3–27–96	57.96	47.3	2,132	2,190	V	—	100–220	
–6L11[1]	345350117074001	—	—	3–27–96	55.54	—	2,129	2,185	V	200	190–200	
–6L12[1]	345350117074002	—	—	3–27–96	53.87	—	2,131	2,185	V	155	135–155	
–6L13[1]	345350117074003	—	—	3–27–96	55.36	—	2,130	2,185	V	95	75–95	
–6P2	345345117074901	—	—	3–27–96	51.48	—	2,134	2,185	V	94	74–94	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
9N/2W–19B1	345147117071801	—	—	—	—	—	—	2,256	—	300	—	H
–19B2	345148117072401	11–21–92	115.97	4–22–96	111.03	4.94	2,149	2,260	V	187	—	
–21R1	345104117045701	5–17–94	236.88	5–13–96	238.04	–1.16	2,152	2,390	S	—	—	
–27C1	345050117042701	11–21–92	278.48	4–22–96	280.25	–1.77	2,165	2,445	V	—	—	R
9N/3E–3D1	345429116393501	—	—	—	—	—	—	2,145	—	85	—	H
–3D2	345428116394001	11–16–92	92.62	5–1–96	97.12	–4.5	1,721	1,818	V	—	—	
–5H1	345409116404901	11–16–92	91.27	3–25–96	95.67	–4.4	1,729	1,825	S	200	60–200	
–5N2	345344116413401	11–16–92	105.42	3–25–96	101.26	4.16	1,739	1,840	S	—	—	
–6A1	345417116420001	11–13–92	85.89	3–25–96	89	–3.11	1,751	1,840	V	—	—	
–15E4	345224116393601	12–9–92	103.24	5–14–96	109.63	–6.39	1,718	1,828	S	150	60–150	R
–22R4[1]	345104116384001	—	—	3–25–96	105.59	—	1,719	1,825	V	610	590–610	
–22R5[1]	345104116384002	—	—	3–25–96	105.48	—	1,720	1,825	V	510	490–510	
–22R6[1]	345104116384003	9–21–93	103.49	3–25–96	107.64	–4.15	1,717	1,825	V	290	270–290	
–22R7[1]	345104116384004	—	—	3–25–96	104.4	—	1,721	1,825	V	110	90–110	
–29D1	345052116413601	12–10–92	52.03	4–22–96	60.71	–8.68	1,794	1,855	V	197	167–197	
–34D1	345011116394201	—	—	—	—	—	—	2,280	—	44	—	H
–34N1	344927116394101	11–24–92	83.68	5–14–96	91.58	–7.9	1,728	1,820	V	99	40–99	P
–35D3	345001116381701	1–15–93	94.21	5–14–96	95.17	–.96	1,727	1,822	S	219	60–219	
9N/3W–1R5[1]	345341117082101	—	—	3–27–96	75.88	—	2,119	2,195	V	330	310–330	S
–1R6[1]	345341117082102	—	—	3–27–96	70.09	—	2,125	2,195	V	210	190–210	S
–1R7[1]	345341117082103	11–16–92	107.65	3–27–96	63.17	44.48	2,132	2,195	V	130	110–130	
–3J2	345351117101601	—	—	5–21–96	89.72	—	2,150	2,240	V	—	—	
–11C1	345333117095601	1–20–93	77.18	4–5–96	69.87	7.31	2,150	2,220	S	200	120–200	
–13R1	345153117080701	11–24–92	107.82	5–14–96	93.64	14.18	2,151	2,245	S	212	—	
–15A1	345234117101701	11–17–92	74.85	3–27–96	54.4	20.45	2,161	2,215	V	—	—	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
9N/3W–21K1	345119117113601	—	—	5–16–96	42.8	—	2,203	2,246	S	150	50–150	
–22J4	345112117101901	3–23–94	42.44	3–27–96	43.4	–0.96	2,187	2,230	V	—	—	
–23C1	345146117094301	—	—	3–27–96	49	—	2,174	2,223	V	77	57–77	
–23F1[1]	345124117094301	—	—	3–27–96	47.95	—	2,179	2,227	V	585	565–585	
–23F2[1]	345124117094302	—	—	3–27–96	43.83	—	2,187	2,230	V	310	290–310	
–23F3[1]	345124117094303	—	—	3–27–96	43.64	—	2,183	2,227	V	200	180–200	
–23F4[1]	345124117094304	—	—	3–27–96	43.54	—	2,183	2,227	V	90	70–90	
–24Q2	345059117082901	11–17–92	200.87	3–27–96	188.05	12.82	2,152	2,340	S	232	122–132	
9N/4W–8D1	345332117194201	11–21–92	343.21	4–30–96	343	.21	2,012	2,355	V	—	—	
–34D1	344959117173101	4–21–93	396.06	4–5–96	396.06	0	2,087	2,483	S	620	—	
10N/1E–20M1[1]	345631116541401	—	—	3–26–96	255.2	—	1,835	2,090	V	350	340–350	
–20M2[1]	345631116541402	9–23–93	251.25	3–26–96	255.18	–3.93	1,835	2,090	V	285	265–285	
–28G3	345600116523901	—	—	5–14–96	153.51	—	1,831	1,985	S	227	127–227	
–28J8	345542116522401	4–22–93	138.92	4–24–96	131.5	7.42	1,841	1,972	S	255	211–255	
10N/1W–32F12	345448117003301	—	—	3–26–96	31.35	—	2,054	2,085	V	190	—	
–32Q4	345427117000701	11–17–92	48.4	3–26–96	26.22	22.18	2,054	2,080	S	—	40–139	
–33L3	345443116591701	—	—	3–26–96	42.88	—	2,047	2,090	V	120	50–120	
10N/2E–31L3	345446116485101	6–2–92	121.91	5–15–96	129.84	–7.93	1,805	1,935	S	240	100–240	R
–32P1	345432116474201	11–17–92	96.39	3–26–96	101.48	–5.09	1,804	1,905	V	—	—	
–35A1	345516116440601	11–17–92	127.85	3–26–96	130.9	–3.05	1,744	1,875	V	—	100–200	
–35M2	345453116444501	11–18–91	121.7	3–26–96	128.05	–6.35	1,747	1,875	V	225	—	
10N/2W–30D1	345610117080601	1–19–93	86.94	4–23–96	78.75	8.19	2,101	2,180	V	—	68–138	
–31D1	345518117080301	1–19–93	85.28	4–23–96	66.1	19.18	2,109	2,175	V	—	—	
–32B1	345517117062001	—	—	5–21–96	57.43	—	2,117	2,174	V	63	—	H
–33C4	345505117053604	1–20–93	94.48	4–23–96	53.2	41.28	2,112	2,165	S	174	132–174	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
10N/2W–33R16	345426117050801	—	—	10–08–96	53.84	—	2,105	2,159	S	150	80–150	R
10N/3E–3Q1	345903116385601	—	—	4–24–96	81.4	—	1,709	1,790	S	—	—	
–4K1	345906116400001	—	—	4–24–96	96.1	—	1,701	1,797	S	—	—	
–7R1	345801116414701	1–13–93	120.15	5–14–96	116.85	3.3	1,702	1,819	S	234	—	
–12F1	345836116370401	11–18–92	107.59	5–14–96	108.1	–.51	1,669	1,777	S	—	—	
–14L4	345727116381601	11–13–92	115.04	3–25–96	109.67	5.37	1,680	1,790	V	—	60–260	
–15Q2	345710116385601	11–13–92	124.42	3–25–96	118.67	5.75	1,681	1,800	S	—	—	
–23D1	345702116382601	—	—	4–24–96	98.22	—	1,692	1,790	S	—	—	
–25B2	345608116364901	—	—	4–24–96	12.75	—	1,707	1,720	S	—	—	
–26H1	345549116373701	—	—	1–17–96	17.52	—	1,712	1,730	S	25	14.7–24.7	
–26Q1	345530116380201	11–12–92	50.97	5–1–96	49.4	1.57	1,721	1,770	V	—	—	
–27J1[1]	345542116383901	—	—	3–25–96	18.41	—	1,732	1,750	R	570	550–570	
–27J2[1]	345542116383902	—	—	3–25–96	21.41	—	1,729	1,750	R	370	350–370	
–27J3[1]	345542116383903	—	—	3–25–96	33.52	—	1,717	1,750	R	255	235–255	
–27J4[1]	345542116383904	11–16–92	32.37	3–25–96	32.53	–.16	1,718	1,750	R	255	70–90	
–27J5[1]	345542116383905	—	—	3–25–96	3.62	—	1,719	1,750	V	45	35–45	
–27Q3	345533116391101	11–13–92	40.7	3–25–96	41.48	–.78	1,719	1,760	S	200	—	
–28J1	345538116395501	11–17–92	83.82	3–25–96	83.24	.58	1,727	1,810	V	—	100–207.6	
–30P2	345534116422201	—	—	5–22–96	105.5	—	1,735	1,840	V	300	—	
–33H3	345503116394401	11–16–92	49.78	3–25–96	50.22	–.44	1,725	1,775	V	160	70–120	
–34L2	345457116391901	11–13–92	73.7	3–25–96	73.1	.6	1,724	1,797	V	—	—	
–35L1	345456116381601	11–12–92	82.74	3–25–96	84.83	–2.09	1,715	1,800	V	—	—	
–36A1	345516116363801	—	—	4–24–96	68.85	—	1,711	1,780	S	—	—	
10N/3W–4H2	345924117111901	—	—	4–17–96	74.46	—	2,026	2,100	S	—	—	
–11L5	345822117095401	11–18–92	63.09	4–17–96	62.53	.56	2,067	2,130	V	225	—	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
10N/3W–25E6	345554117090901	3–24–93	86.77	4–30–96	9.43	–3.66	2,078	2,168	V	200	80–200	
–26L2	345539117094301	12–10–92	90.05	4–17–96	97.18	–7.13	2,076	2,173	V	—	38–156	
–27F1	345546117104601	11–14–90	92.46	5–16–96	91.84	.62	2,077	2,169	S	130	80–130	R
–28M1	345542117121201	11–1–90	67.37	5–16–96	80.01	–12.64	2,096	2,176	S	217	75–217	R
–36J4	345441117080801	3–18–93	93.29	4–30–96	7.6	22.69	2,114	2,185	V	250	70–250	
10N/4E–7P2	345802116361201	—	—	3–25–96	62.11	—	1,710	1,772	S	—	—	
–19M2	345632116362701	11–12–92	3.34	3–25–96	1.37	1.97	1,709	1,710	V	—	11–180	
–20C4	345659116350101	11–12–92	128.56	3–25–96	127.86	.7	1,602	1,730	V	—	—	
–29E3	345601116352101	11–12–92	42.4	3–25–96	42.12	.28	1,698	1,740	V	—	—	
–30F1	345600116360201	—	—	3–25–96	17.42	—	1,706	1,723	V	—	—	
10N/4W–10D1	345851117172901	11–19–92	236.53	5–13–96	238.64	–2.11	1,896	2,135	S	363	—	
–33D1	345516117183601	6–24–93	269.55	5–14–96	270.17	–.62	2,009	2,279	S	329	—	
10N/6W–36D3	345518117280601	11–17–92	241	4–18–96	240.9	.1	2,479	2,720	V	454	181–454	O at 400
11N/2E–26R1	350036116435601	—	—	5–14–96	55.05	—	1,723	1,778	V	109	—	
11N/3E–16R1	350217116393301	—	—	4–24–96	73.33	—	1,709	1,782	V	—	—	
11N/3W–7D1	350358117142201	11–22–92	91.13	4–17–96	95.55	–4.42	1,975	2,071	V	126	—	
–16D1	350308117121901	11–22–92	73.72	4–17–96	78.54	–4.82	1,998	2,077	V	—	—	
–28R1	350044117112001	—	—	—	—	—	—	2,074	—	105	—	H
–28R2	350039117112101	11–23–92	59.42	5–14–96	63.51	–4.09	2,009	2,073	S	223	—	
11N/4W–29R1	350039117185301	—	—	4–11–96	174.57	—	1,870	2,045	V	361	—	
–30N1	350050117204901	11–21–92	223.07	5–13–96	222.93	.14	1,877	2,100	V	500	—	
11N/5E–16J1	350230116264001	—	—	3–25–96	200.45	—	1,438	1,639	S	—	—	
11N/6W–17L1	350250117320601	11–15–92	271.05	5–13–96	270.88	.17	2,285	2,556	S	618	298–618	O at 577
–31A1	350036117324701	11–19–92	174.81	4–18–96	201.86	–27.05	2,260	2,462	V	258	188–258	
11N/7W–36B1	350035117341001	11–19–92	169.66	4–18–96	169.12	.54	2,308	2,477	V	330	260–330	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
13N/3E–4C1[1]	351514116401401	2–15–94	118.63	5–16–96	115.82	2.81	2,284	2,400	V	320	300–320	
–4C2[1]	351514116401402	2–15–94	118.56	5–16–96	115.52	3.04	2,284	2,400	V	220	200–220	
–4C3[1]	351514116401403	2–15–94	118.44	5–16–96	115.23	3.21	2,285	2,400	V	150	130–150	
–4D1[1]	351523116402801	2–15–94	143.64	6–12–96	141.32	2.32	2,279	2,420	V	320	300–320	
–4D2[1]	351523116402802	2–15–94	143.19	6–12–96	140.76	2.43	2,279	2,420	V	250	230–250	
–4D3[1]	351523116402803	2–15–94	142.8	6–12–96	140.32	2.48	2,280	2,420	V	170	150–170	
–4K2[1]	351449116400501	11–30–94	94.95	6–11–96	92.37	2.58	2,293	2,385	V	238	228–238	
–4K3[1]	351449116400502	11–30–94	94.06	6–11–96	91.92	2.14	2,293	2,385	V	190	170–190	
–4K4[1]	351449116400503	11–30–94	95.33	6–11–96	93.1	2.23	2,292	2,385	V	135	115–135	
–4Q2	351441116400401	11–2–94	76	5–15–96	73.7	2.3	2,311	2,385	V	90	85–90	
–5G2	351504116405501	2–15–94	187.3	9–18–96	187	.3	2,273	2,460	V	450	210–440	
–10D1	351422116392501	4–1–94	27.86	5–15–96	25.35	2.51	2,320	2,345	R	65	15–65	
–10E1[1]	351416116392201	2–15–94	34.89	6–13–96	31.71	3.18	2,311	2,343	V	243	223–243	
–10E2[1]	351416116392202	2–15–94	32.24	6–13–96	29.88	2.36	2,313	2,343	V	170	150–170	
–10E3[1]	351416116392203	2–15–94	30.1	6–13–96	28.45	1.65	2,314	2,343	V	60	40–60	
–23F1	351226116380401	7–22–94	54.83	9–18–96	54.82	.01	2,135	2,190	V	585	95–575	
–26N1	351107116382701	9–7–96	160.46	9–18–96	163.35	–2.89	2,097	2,260	V	—	—	
–34Q1	351020116385101	9–7–94	243.68	9–18–96	245.29	–1.61	2,135	2,380	V	—	—	
–35A1	351054116373601	9–7–94	125.25	9–18–96	121.42	3.83	2,069	2,190	V	—	—	
14N/3E–14H1	351830116372601	9–8–94	301.53	9–18–96	297.14	4.39	2,123	2,420	V	—	—	
–22N1[1]	351710116392701	—	—	5–22–96	171.54	—	2,248	2,420	V	260	240–260	
–22N2[1]	351710116392702	—	—	5–22–96	—	—	—	2,420	V	170	150–170	D
–22P1	351719116390301	9–8–94	190.23	9–18–96	191.51	–1.28	2,238	2,430	V	—	—	
–23G1	351738116374101	9–8–96	147.23	9–18–96	149.57	–2.34	2,215	2,365	V	—	—	
–24H1	351742116362401	12–20–96	172.18	9–18–96	178.57	–6.39	2,179	2,358	V	—	—	

See footnote at end of table.

Table 1. Water-level data and well-construction information for the Mojave River, the Morongo, and the Fort Irwin ground-water basins, San Bernardino County, California—Continued

State well no.	USGS identification no.	Date	1990–94 depth to water (ft below land surface)	Date	1996 depth to water (ft below land surface)	Difference in depths to water (ft)	Altitude of water table (ft above sea level)	Altitude of land surface (ft above sea level)	Method of measurement	Depth of well (ft)	Screened or perforated interval (ft)	Well notes
14N/3E–32B1[1]	351616116410701	2–15–94	262.8	5–21–96	263.02	–0.22	2,267	2,530	V	630	610–630	
–32B2[1]	351616116410702	2–15–94	262.4	5–21–96	262.85	–.45	2,267	2,530	V	540	520–540	
–32B3[1]	351616116410703	2–15–94	262.7	5–21–96	262.6	.1	2,267	2,530	V	300	280–300	
–32F2[1]	351558116412101	11–30–94	253.14	9–18–96	252.55	.59	2,277	2,530	V	460	440–460	
–32F3[1]	351558116412102	11–30–94	253.53	9–18–96	252.84	.69	2,277	2,530	V	290	270–290	
–32J1	351547116405001	12–20–94	203.45	—	—	—	2,257	2,460	V	550	200–536	
–32P2[1]	351527116412501	9–7–94	239.8	9–18–96	240.08	–.28	2,277	2,517	V	904	850–870	
–32P3[1]	351527116412502	9–7–94	240.85	9–18–96	240.00	.85	2,277	2,517	V	730	710–730	
–32P4[1]	351527116412503	9–7–94	242.97	9–18–96	241.39	1.58	2,277	2,517	V	580	560–580	
–32P5[1]	351527116412504	9–7–94	241.25	9–18–96	241.37	–.12	2,276	2,517	V	405	385–405	
–32P6[1]	351527116412505	9–7–94	240.28	9–18–96	234.13	6.15	2,283	2,517	V	270	250–270	
–33E2[1]	351556116402401	9–7–94	149.2	9–18–96	148.56	.64	2,276	2,425	V	220	200–220	
–33E3[1]	351556116402402	9–7–94	149.18	9–18–96	148.61	.57	2,276	2,425	V	175	155–175	
–33J1	351549116393801	—	—	9–18–96	85.58	—	2,304	2,389	V	117	—	
–33R1	351530116394401	2–15–94	62.9	9–18–96	59.13	3.77	2,320	2,379	V	—	—	
14N/4E–18N2	351811116361701	9–7–94	217.8	9–18–96	226.08	–8.28	2,154	2,380	V	—	—	

[1]Multiple-well completion site.