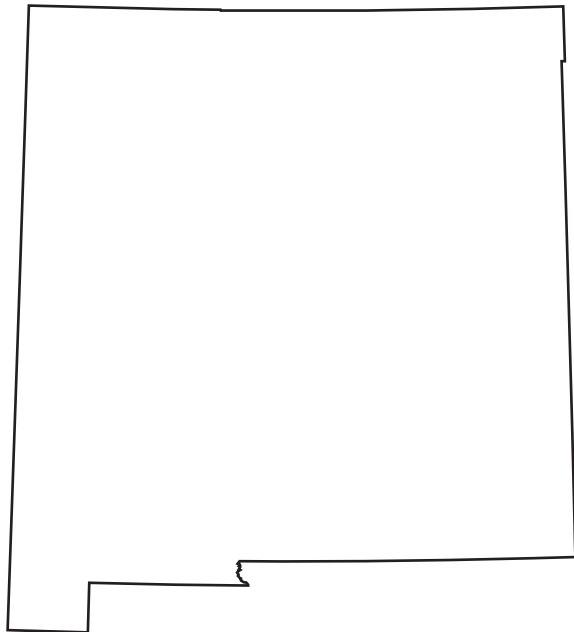


U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data New Mexico Water Year 2002

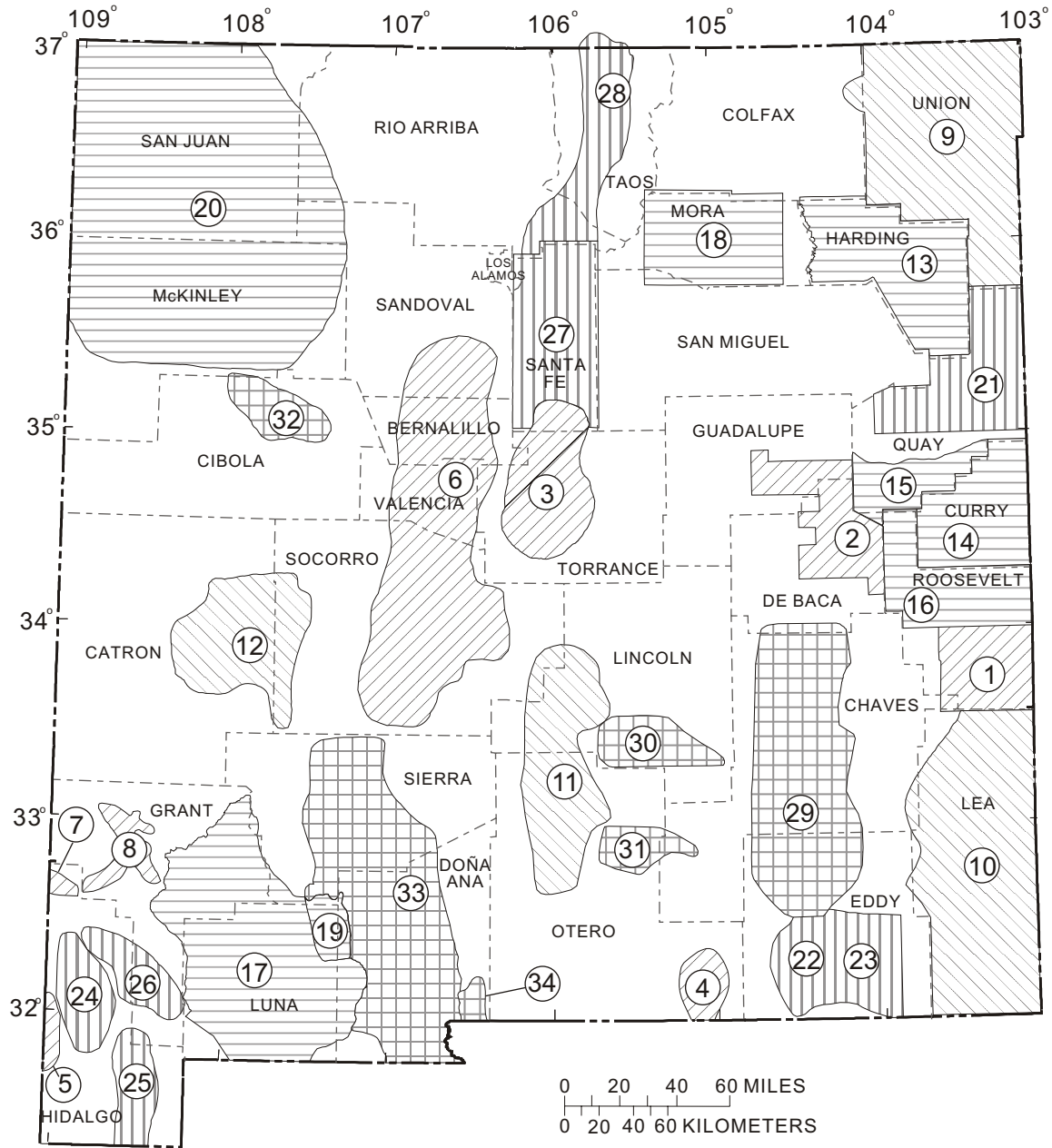
By Dave Byrd, Kathy Lange, and Linda Beal

Water-Data Report NM-02-1


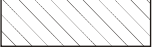
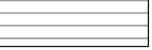

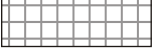


Prepared in cooperation with the State of New Mexico
and with other agencies





EXPLANATION

				
2000/2005	2001/2006	1997/2002	1998/2003	1999/2004

- | | | | | |
|----------------------|--------------------------|--------------------|----------------------|----------------------|
| 1. CAUSEY-LINGO | 09. NORTHERN HIGH PLAINS | 13. HARDING COUNTY | 21. LOWER CANADIAN | 29. ROSWELL BASIN |
| 2. FT. SUMNER | 10. LEA COUNTY | 14. CURRY COUNTY | 22. CARLSBAD | 30. RIO HONDO |
| 3. ESTANCIA | 11. TULAROSA BASIN | 15. HOUSE | 23. CAPITAN REEF | 31. RIO PEÑASCO |
| 4. SALT BASIN | 12. SAN AGUSTIN PLAINS | 16. PORTALES | 24. ANIMAS | 32. GRANTS-BLUEWATER |
| 5. SAN SIMON | | 17. MIMBRES BASIN | 25. PLAYAS | 33. LOWER RIO GRANDE |
| 6. MIDDLE RIO GRANDE | | 18. MORA | 26. LORDSBURG | 34. HUECO |
| 7. VIRDEN | | 19. NUTT-HOCKETT | 27. SANTA FE COUNTY | |
| 8. GILA RIVER | | 20. SAN JUAN BASIN | 28. UPPER RIO GRANDE | |

Figure 1.--Areas of 5-year ground-water-level monitoring and years measured or scheduled for measurement.

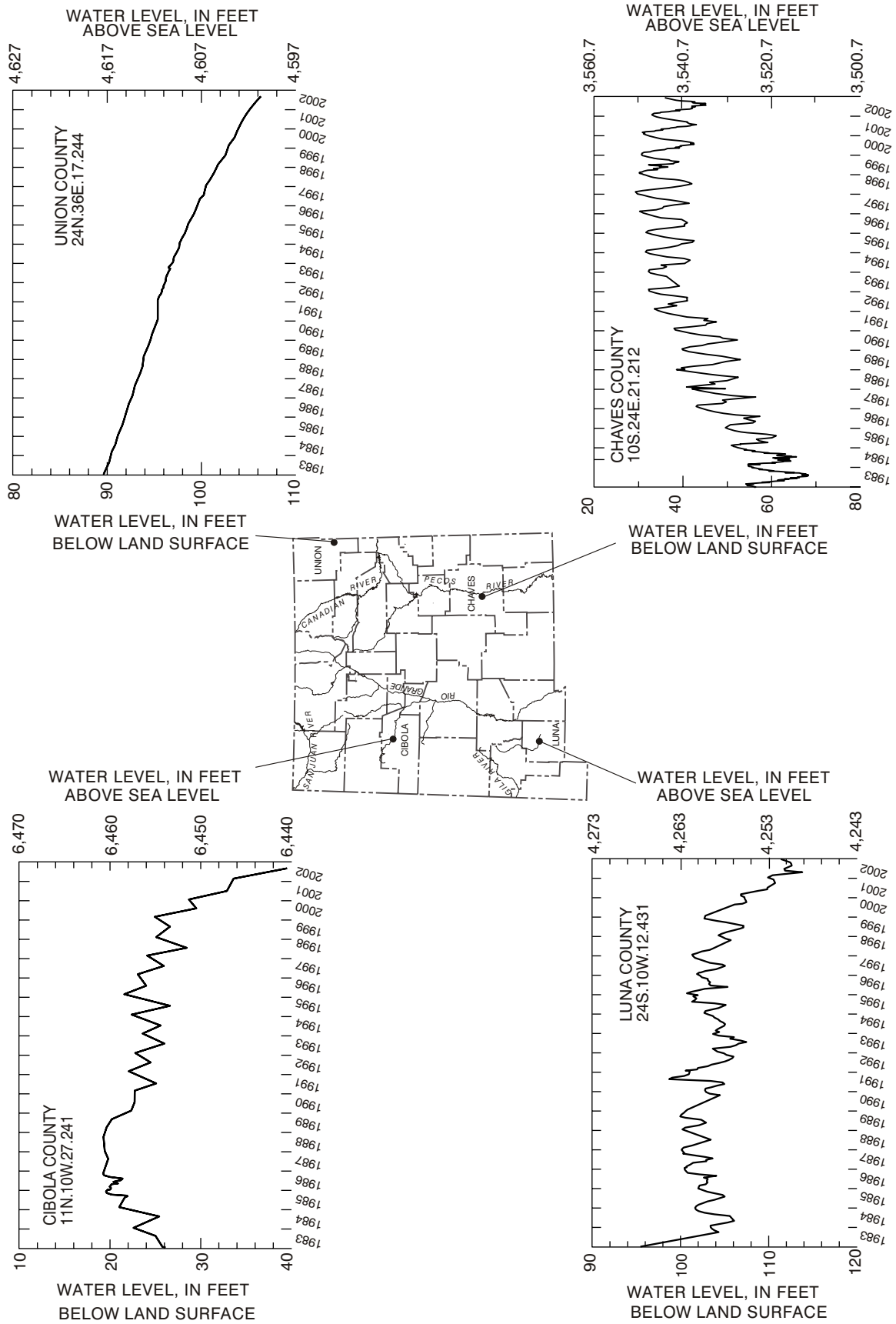


Figure 2.--Ground-water-level trends for the last 20 years.

GROUND-WATER LEVELS

SAN JUAN COUNTY
San Juan Basin

364744108225001. Local number, 30N.15W.23.4411.
 LOCATION.--Lat 36°47'44", long 108°22'50", Hydrologic Unit 14080105.
 AQUIFER.--Pictured Cliffs Sandstone.
 WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 729.5 ft, cased to 729.5 ft, perforated 613-729.5 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 5,290 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft above land-surface datum.
 PERIOD OF RECORD.--Feb. 1978 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 123.75 ft below land-surface datum, Feb. 21, 1978; lowest measured, 178.70 ft below land-surface datum, Sept. 16, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 23	177.15	SEP 16	178.70

SAN MIGUEL COUNTY
Las Vegas Area

353346105145201. Local number, 15N.16E.04.242.
 LOCATION.--Lat 35°33'46", long 105°14'52", Hydrologic Unit 13060001.
 AQUIFER.--Santa Rosa Sandstone.
 WELL CHARACTERISTICS.--Drilled water-table municipal well, diameter 10 in. 0-612 ft, 7 in. 612-772 ft, depth 815 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 6,462 ft above National Geodetic Vertical Datum of 1929. Measuring point: Entry port, west side of pump base, 1.95 ft above land-surface datum.
 PERIOD OF RECORD.--Dec. 1999 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.82 ft below land-surface datum, Dec. 15, 1999; lowest measured, 41.43 ft below land-surface datum, Aug. 30, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 05	32.39	AUG 30	41.43

353418105145601. Local number, 16N.16E.33.143.
 LOCATION.--Lat 35°34'18", long 105°14'56", Hydrologic Unit 13060001.
 AQUIFER.--Santa Rosa Sandstone.
 WELL CHARACTERISTICS.--Drilled water-table municipal well, diameter 10 in. 0-596 ft, 8 in. 596-824 ft, depth 829 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 6,477 ft above National Geodetic Vertical Datum of 1929. Measuring point: Entry port, west side of pump base, 1.95 ft above land-surface datum.
 PERIOD OF RECORD.--Dec. 1999 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 79.81 ft below land-surface datum, July 27, 2001; lowest measured, 102.34 ft below land-surface datum, Aug. 30, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 05	93.91	AUG 30	102.34

SANTA FE COUNTY
Estancia Valley

350534106024801 (formerly 350525106025001). Local number, 10N.08E.13.1332.
 LOCATION.--Lat 35°05'34", long 106°02'53", Hydrologic Unit 13050001.
 AQUIFER.--Valley fill.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., reported depth 513 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 6,274 ft above National Geodetic Vertical Datum of 1929. Measuring point: Lower inside edge of hole in south side of casing, 0.45 ft above land-surface datum.
 REMARKS.--"P" indicates well pumping; "R" indicates well recently pumped.
 PERIOD OF RECORD.--Feb. 1950 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.75 ft below land-surface datum, Feb. 22, 1950; lowest measured, 181.55P ft below land-surface datum, Aug. 4, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 05	157.70	SEP 06	175.86R

SANTA FE COUNTY--Continued
Estancia Valley

350344106004601 (formerly 350340106005001). Local number, 10N.09E.29.1334.

LOCATION.--Lat 35°03'45", long 106°00'46", Hydrologic Unit 13050001.

AQUIFER.--Glorieta Sandstone of Permian age.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 14 in., reported depth 200 ft, cased to 140 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,248 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of 3-in. pipe on north side of pump, 1.30 ft above land-surface datum.

REMARKS.--"S" indicates nearby well pumping.

PERIOD OF RECORD.--Feb. 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 55.00 ft below land-surface datum, May 4, 1949; lowest measured, 142.95 ft below land-surface datum, Sept. 6, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 05	126.55	SEP 06	142.95S

350859106002901. Local number, 11N.09E.29.143.

LOCATION.--Lat 35°08'59", long 106°00'29", Hydrologic Unit 13050001.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 15 in., depth unknown.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,274 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.80 ft above land-surface datum.

PERIOD OF RECORD.--July 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.93 ft below land-surface datum, Apr. 1, 1987; lowest measured, 148.30 ft below land-surface datum, Sept. 6, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 05	147.18	SEP 06	148.30

Santa Fe Area

353636106021001. Local number, 16N.08E.13.444.

LOCATION.--Lat 35°36'36", long 106°02'10", Hydrologic Unit 13020201.

AQUIFER.--Tesuque Formation of Santa Fe Group.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 6 1/2 in., depth 337 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,400 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.70 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 256.04 ft below land-surface datum, Jan. 20, 1982; lowest measured, 264.79 ft below land-surface datum, Aug. 15, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 07	263.85	AUG 30	264.38

353516106035801. Local number, 16N.08E.26.32112.

LOCATION.--Lat 35°35'16", long 106°03'58", Hydrologic Unit 13020201.

AQUIFER.--Tesuque Formation of Santa Fe Group.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 10 in., depth 160 ft, cased to 160 ft, perforated 125-160 ft.

INSTRUMENTATION.--Digital recorder, 1-hour measurement.

DATUM.--Elevation of land-surface datum is 6,285 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.25 ft above land-surface datum.

REMARKS.--Lost records due to recorder malfunction.

PERIOD OF RECORD.--July 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.62 ft below land-surface datum, June 11, 1973; lowest measured, 131.72 ft below land-surface datum, Feb. 18 and 19, 2002.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), OCTOBER 2001 TO SEPTEMBER 2002
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	131.07	131.09	131.35	131.52	131.32	131.11	131.15	131.21	131.30	131.32	131.28	131.12
10	131.04	131.13	131.21	131.54	131.25	131.05	131.14	131.17	131.27	131.31	131.25	131.14
15	131.09	131.18	131.35	131.52	131.23	131.15	131.14	131.22	131.27	131.30	131.21	131.14
20	131.02	131.14	131.36	131.49	131.16	131.15	131.16	131.25	131.32	131.32	131.22	131.11
25	131.08	131.14	131.42	131.43	131.21	131.20	131.18	131.27	131.30	131.28	131.20	131.05
EOM	131.05	131.28	131.44	131.45	131.05	131.15	131.11	131.27	131.30	131.31	131.14	131.02
WTR YEAR 2002			HIGHEST	130.97	OCT 11	LOWEST		131.72	JAN 18, 19			

GROUND-WATER LEVELS

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TAOS COUNTY--Continued
Sunshine Valley

365644105363501 (formerly 365650105370001). Local number, 01S.74W.24.244.

LOCATION.--Lat 36°56'44", long 105°36'35", Hydrologic Unit 13020101.

AQUIFER.--Valley fill.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 270 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 7,628 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 182.78 ft below land-surface datum, Jan. 17, 1996; lowest measured, 213.53 ft below land-surface datum, Aug. 10, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 26	184.89	AUG 22	184.08

TORRANCE COUNTY
Estancia Valley

343443106024401. Local number, 04N.09E.07.334.

LOCATION.--Lat 34°34'43", long 106°02'44", Hydrologic Unit 13050001.

AQUIFER.--Valley fill.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 in., reported depth 163 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,118 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in northwest side of pump base, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.70 ft below land-surface datum, Feb. 10, 1958; lowest measured, 110.90 ft below land-surface datum, Aug. 3, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 05	102.18	SEP 06	PUMPING

344016106070901 (formerly 344016106064701). Local number, 05N.08E.08.424.

LOCATION.--Lat 34°40'16", long 106°07'09", Hydrologic Unit 13050001.

AQUIFER.--Valley fill.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., reported depth 204 ft, cased to 98 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,218 ft above National Geodetic Vertical Datum of 1929. Measuring point: 3/4-in. plug in south side of discharge pipe, 1.80 ft above land-surface datum.

PERIOD OF RECORD.--Mar. 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.03 ft below land-surface datum, Mar. 23, 1948; lowest measured, 135.70 ft below land-surface datum, July 11, 2000.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 05	129.82	SEP 06	PUMPING

344234106070601 (formerly 344234106074901). Local number, 06N.08E.32.212.

LOCATION.--Lat 34°42'34", long 106°07'06", Hydrologic Unit 13050001.

AQUIFER.--Valley fill.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 18 in., reported depth 209 ft, cased to 84 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,174 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1 1/2-in. hole in pump base, 0.04 ft above land-surface datum.

REMARKS.--"R" indicates well recently pumped.

PERIOD OF RECORD.--Feb. 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.22 ft below land-surface datum, Feb. 18, 1947; lowest measured, 94.69R ft below land-surface datum, Aug. 30, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 05	90.01	SEP 06	PUMPING

GROUND-WATER LEVELS

TORRANCE COUNTY--Continued
Estancia Valley

344604105574601 (formerly 344622105575501). Local number, 06N.09E.11.211.

LOCATION.--Lat 34°46'04", long 105°57'46", Hydrologic Unit 13050001.

AQUIFER.--Valley fill.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 18 in., reported depth 148 ft, cased to 140 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,086 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.75 ft above land-surface datum.

PERIOD OF RECORD.--May 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.07 ft below land-surface datum, May 4, 1949; lowest measured, 41.42 ft below land-surface datum, Sept. 6, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 05	22.62	SEP 06	41.42

344842106032701. Local number, 07N.08E.25.121.

LOCATION.--Lat 34°48'43", long 106°03'22", Hydrologic Unit 13050001.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 16 in., depth 200 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,131 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.00 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.30 ft below land-surface datum, Feb. 7, 1962; lowest measured, 74.63 ft below land-surface datum, Sept. 6, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 05	64.82	SEP 06	74.63

UNION COUNTY
Clayton Area

355144103041201 (formerly 360940103083501). Local number, 19N.36E.23.2444.

LOCATION.--Lat 35°51'44", long 103°04'12", Hydrologic Unit 11090102.

AQUIFER.--Dakota and Purgatoire Formations.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 14 in., depth 206 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,326 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

REMARKS.--"S" indicates nearby well pumping.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 145.22 ft below land-surface datum, Mar. 17, 1971; lowest measured, 158.58 ft below land-surface datum, Aug. 19, 1987.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 21	151.08	SEP 10	151.13

361847103064701 (formerly 361910103170501). Local number, 24N.36E.17.244.

LOCATION.--Lat 36°18'47", long 103°06'47", Hydrologic Unit 11090103.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 20 in., depth 231 ft.

INSTRUMENTATION.--Continuous strip-chart recorder removed. Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,707 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.95 ft above land-surface datum.

PERIOD OF RECORD.--May 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.38 ft below land-surface datum, May 8, 1968; lowest measured, 106.30 ft below land-surface datum, Sept. 10, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	104.84	MAR 22	105.46	SEP 10	106.30