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Reports

GROUND-WATER REPORT 6

Geology and Ground-Water Conditions in Southern Lea County, New Mexico

by ALEXANDER NICHOLSON, Jr.
and ALFRED CLEBSCH, JR.

UNITED STATES GEOLOGICAL SURVEY

STATE BUREAU OF MINES AND MINERAL RESOURCES
NEW MEXICO INSTITUTE OF MINING & TECHNOLOGY
CAMPUS STATION SOCORRO, NEW MEXICO

DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

GEOHYDROLOGY OF THE HIGH PLAINS AQUIFER IN SOUTHEASTERN NEW MEXICO

By Donald L. Hart, Jr. and Douglas P. McAda

HYDROLOGIC INVESTIGATIONS ATLAS
Published by the U.S. Geological Survey, 1985

ATLAS HA

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH
THE NEW MEXICO STATE ENGINEER

GROUND-WATER CONDITIONS IN NORTHERN LEA COUNTY, NEW MEXICO

By

Sidney R. Ash

HYDROLOGIC INVESTIGATIONS
ATLAS HA-62

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WASHINGTON, D.C.
1963

TECHNICAL REPORT 29A

New Mexico State Engineer
Santa Fe, N. Mex.

MUNICIPAL WATER SUPPLIES AND USES

Southeastern New Mexico

BY
G. A. DINWIDDIE

Prepared in cooperation with
the United States Geological Survey

SOIL SURVEY

Lea County, New Mexico



UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
In cooperation with
NEW MEXICO AGRICULTURAL EXPERIMENT STATION
Issued January 1974

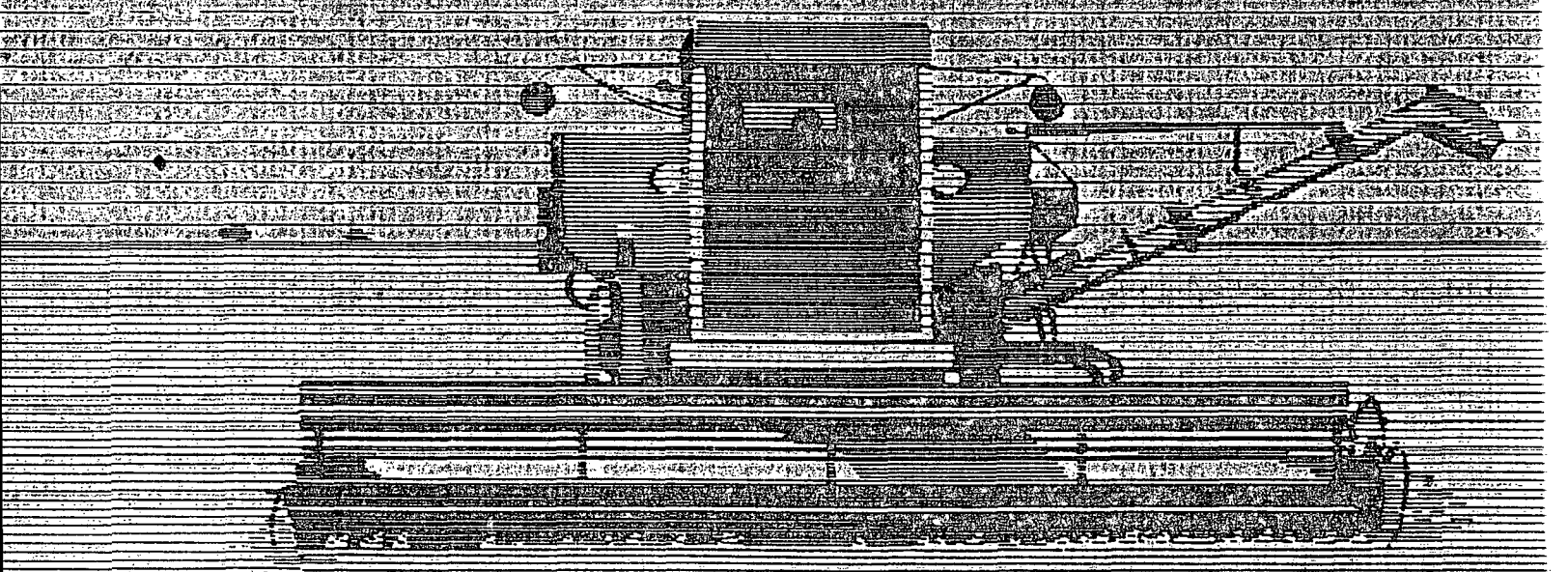
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SIX-STATE HIGH PLAINS OGALLALA AQUIFER REGIONAL RESOURCES STUDY

High Plains Associates:
Camp Dresser & McKee Inc.
Black & Veatch
Arthur D. Little, Inc.

A report to the U.S. Department of Commerce and the High Plains Study Council

March, 1982



EIA Technical Report

Energy Information Administration
U. S. Department of Energy
Washington, DC 20585

DOE/EIA-TR-0567

Largest U. S. Oil and Gas Fields

August 1993

Table 2. Top 100 U.S. Oil Fields Group-Ranked According to Ultimate Recovery, 1991 (Continued)

Rank	Location	Field Name	Discovery Year	Field Size Ranking Codes: Ultimate Recovery	Proved Reserves	Cumulative Production	Annual Production
	AK	Endicott	1978	*10*	1	20	1
	CA	Brea-Olinda	1897	*10*	10	10	20
	CA	Cat Canyon	1909	*10*	10	10	50
	CA	Cymric	1916	*10*	5	20	5
	CA	Dominguez	1923	*10*	100	10	100
	CA	Inglewood	1924	*10*	20	10	20
	CA	Kettleman Dome North	1928	*10*	200	5	200
	CA	Lost Hills	1910	*10*	5	20	5
	CA	McKittrick	1887	*10*	10	10	50
	CA	Mount Poso	1923	*10*	20	10	10
	FL & AL	Jay	1970	*10*	10	10	10
	GF	Eugene Island SA Blk 330	1971	*10*	10	10	5
	GF & LA	Grand Isle Blk 16	1948	*10*	50	10	20
	GF	Grand Isle Blk 43	1956	*10*	20	10	10
	GF & LA	South Pass Blk 27	1954	*10*	10	10	10
	IL	Clay City Consol	1937	*10*	20	10	20
	IL & IN	Lawrence County Division	1900	*10*	20	10	20
	IL	Louden	1937	*10*	100	10	50
	IL	Salem Consol	1938	*10*	50	10	50
	KS	Chase-Silica	1929	*10*	50	10	50
	KS	El Dorado	1915	*10*	50	10	50
51	LA & TX	Caddo Pine Island	1901	*10*	20	10	20
	LA	Lake Washington	1931	*10*	50	10	20
	LA	Timbalier Bay	1938	*10*	50	10	50
through	NM	Eunice Monument	1929	*10*	5	10	20
	NM	Hobbs	1928	*10*	10	10	10
	OK	Glennpool	1905	*10*	100	10	50
100	OK	Healdton	1913	*10*	20	10	20
	OK	Sooner Trend	1938	*10*	20	10	10
	PF	Hondo	1969	*10*	2	50	5
	TX	Anahuac	1935	*10*	100	10	100
	TX	Archer County Regular	1911	*10*	50	10	50
	TX	Diamond -M-	1940	*10*	20	10	50
	TX & NM	Dollarhide	1945	*10*	10	20	10
	TX	Foster	1932	*10*	10	10	20
	TX	Fullerton	1942	*10*	5	10	5
	TX	Giddings	1960	*10*	10	20	2
	TX	Hastings East	1934	*10*	200	10	200
	TX	Howard-Glasscock	1925	*10*	5	10	5
	TX	Keystone	1935	*10*	20	10	50
	TX	Salt Creek	1942	*10*	5	10	5
	TX	Seeligson	1938	*10*	200	10	200
	TX	Stephens County Regular	1915	*10*	10	10	10
	TX	T X L	1944	*10*	10	10	50
	TX	Talco	1936	*10*	20	10	20
	TX	Thompson	1921	*10*	20	10	20
	TX	Ward-Estes North	1927	*10*	20	10	10
	TX	West Ranch	1938	*10*	50	10	50
	UT	Greater Aneth	1956	*10*	5	10	10
	WY	Oregon Basin	1912	*10*	10	10	5
Top 100	**Volume Subtotal (billion bbls)**			***82.8***	14.7	68.2	1.3
Top 100	**Percentage of U.S. Total**			***44.0%***	56.5%	42.0%	49.7%

Ranking Codes: 1=Field nationally ranked in top 10 in category ; 2=top 20 ; 5=top 50 ; 10=top 100 ; 20=top 200 ; 50=top 500 ; 100=top 1,000 ; 200=top 2,000 ; 500=top 5,000 ; 1000=top 10,000 ; *=lower than top 10,000 ; – = zero volume.

Notes: •Field groups are listed in descending volumetric order with respect to the subject category (data italicized). Fields within each group are sorted alphabetically by State abbreviation and then by field name. •GF=Gulf of Mexico offshore Federal domain; PF=Pacific offshore Federal domain. •Crude oil statistics include lease condensate. •Natural gas statistics are defined on a wet, after lease separation basis.

Source: Energy Information Administration, Office of Oil and Gas.

Table 3. Top 100 U.S. Oil Fields Group-Ranked According to Proved Reserves, 1991 (Continued)

Rank	Location	Field Name	Discovery Year	Field Size Ranking Codes: Ultimate Recovery	Proved Reserves	Cumulative Production	Annual Production
	AK	Granite Point	1965	50	*10*	50	20
	AK	McArthur River	1965	5	*10*	5	5
	AK	Middle Ground Shoal	1963	20	*10*	20	20
	AK	Niakuk	1984	100	*10*	–	–
	AL	Chunchula	1974	50	*10*	100	20
	CA	Belridge North	1912	50	*10*	50	20
	CA	Brea-Olinda	1897	10	*10*	10	20
	CA	Cat Canyon	1909	10	*10*	10	50
	CA	Kern Front	1925	20	*10*	20	20
	CA	McKittrick	1887	10	*10*	10	50
	CA	Placerita	1920	50	*10*	100	50
	CO	Wattenberg	1970	50	*10*	100	10
	FL & AL	Jay	1970	10	*10*	10	10
	GF	Eugene Island SA Blk 330	1971	10	*10*	10	5
	GF	Ewing Bank Blk 873	1991	100	*10*	–	–
	GF	High Island SA Blk A573	1973	50	*10*	50	5
	GF	Mississippi Canyon Blk 109	1984	100	*10*	*	500
	GF	South Marsh Is SA Blk 130	1973	20	*10*	20	10
	GF & LA	South Pass Blk 27	1954	10	*10*	10	10
	GF & LA	South Pass Blk 61	1955	20	*10*	20	5
	GF	West Delta Blk 30	1949	5	*10*	5	5
51	LA	Port Hudson	1977	50	*10*	100	10
	MT	Pennel	1955	50	*10*	50	20
	NM	Drinkard	1944	50	*10*	50	100
through	NM	Hobbs	1928	10	*10*	10	10
	NM	Maljamar	1926	20	*10*	20	50
	NM	Monument	1935	20	*10*	20	200
100	PF	Dos Cuadras	1968	20	*10*	20	10
	PF	Point Pedernales	1983	50	*10*	100	10
	TX	Anton-Irish	1944	20	*10*	20	20
	TX	Cedar Lake	1939	50	*10*	50	20
	TX & NM	Dollarhide	1945	10	*10*	20	10
	TX	Foster	1932	10	*10*	10	20
	TX	Giddings	1960	10	*10*	20	2
	TX	Goldsmith	1935	5	*10*	5	10
	TX	Hawkins	1940	5	*10*	2	5
	TX	Kelly-Snyder	1948	2	*10*	1	5
	TX	Mabee	1944	50	*10*	50	20
	TX	Means	1934	20	*10*	20	5
	TX	Panhandle	1910	1	*10*	1	5
	TX	Pegasus	1949	20	*10*	20	50
	TX	Stephens County Regular	1915	10	*10*	10	10
	TX	T X L	1944	10	*10*	10	50
	TX	Tom OConnor	1934	5	*10*	5	10
	TX	Welch	1942	20	*10*	20	20
	UT & WY	Anschutz Ranch East	1979	50	*10*	50	5
	UT	Bluebell	1949	20	*10*	50	10
	WY	Hartzog Draw	1976	50	*10*	50	10
	WY	Oregon Basin	1912	10	*10*	10	5
	WY	Salt Creek	1889	5	*10*	5	10
Top 100	**Volume Subtotal (billion bbls)**			69.4	*17.1*	52.3	1.4
Top 100	**Percentage of U.S. Total**			36.9%	*65.8%*	32.2%	53.0%

Ranking Codes: 1=Field nationally ranked in top 10 in category ; 2=top 20 ; 5=top 50 ; 10=top 100 ; 20=top 200 ; 50=top 500 ; 100=top 1,000 ; 200=top 2,000 ; 500=top 5,000 ; 1000=top 10,000 ; *=lower than top 10,000 ; – = zero volume.

Notes: •Field groups are listed in descending volumetric order with respect to the subject category (data italicized). Fields within each group are sorted alphabetically by State abbreviation and then by field name. •GF=Gulf of Mexico offshore Federal domain; PF=Pacific offshore Federal domain. •Crude oil statistics include lease condensate. •Natural gas statistics are defined on a wet, after lease separation basis.

Source: Energy Information Administration, Office of Oil and Gas.

Table 4. Top 100 U.S. Oil Fields Group-Ranked According to Cumulative Production, 1991 (Continued)

Rank	Location	Field Name	Discovery Year	Field Size Ranking Codes: Ultimate Recovery	Proved Reserves	Cumulative Production	Annual Production
	CA	Brea-Olinda	1897	10	10	*10*	20
	CA	Cat Canyon	1909	10	10	*10*	50
	CA	Coyote West	1909	20	200	*10*	100
	CA	Dominguez	1923	10	100	*10*	100
	CA	Inglewood	1924	10	20	*10*	20
	CA	McKittrick	1887	10	10	*10*	50
	CA	Mount Poso	1923	10	20	*10*	10
	CA	San Ardo	1947	5	5	*10*	10
	FL & AL	Jay	1970	10	10	*10*	10
	GF	Eugene Island SA Blk 330	1971	10	10	*10*	5
	GF & LA	Grand Isle Blk 16	1948	10	50	*10*	20
	GF	Grand Isle Blk 43	1956	10	20	*10*	10
	GF & LA	South Pass Blk 27	1954	10	10	*10*	10
	IL	Clay City Consol	1937	10	20	*10*	20
	IL & IN	Lawrence County Division	1900	10	20	*10*	20
	IL	Louden	1937	10	100	*10*	50
	IL	Main Consol	1906	20	50	*10*	50
	IL & IN	New Harmony Consol	1930	20	50	*10*	50
	IL	Salem Consol	1938	10	50	*10*	50
	KS	Chase-Silica	1929	10	50	*10*	50
	KS	El Dorado	1915	10	50	*10*	50
51	LA & TX	Caddo Pine Island	1901	10	20	*10*	20
	LA	Lafitte	1935	20	50	*10*	50
	LA	Lake Washington	1931	10	50	*10*	20
through	LA	Timbalier Bay	1938	10	50	*10*	50
	NM	Eunice Monument	1929	10	5	*10*	20
	NM	Hobbs	1928	10	10	*10*	10
100	OK	Glennpool	1905	10	100	*10*	50
	OK	Healdton	1913	10	20	*10*	20
	OK	Sooner Trend	1938	10	20	*10*	10
	TX	Anahuac	1935	10	100	*10*	100
	TX	Archer County Regular	1911	10	50	*10*	50
	TX	Cogdell	1949	20	50	*10*	50
	TX	Diamond -M-	1940	10	20	*10*	50
	TX	Foster	1932	10	10	*10*	20
	TX	Fullerton	1942	10	5	*10*	5
	TX	Hastings East	1934	10	200	*10*	200
	TX	Hendrick	1926	20	50	*10*	100
	TX	Howard-Glasscock	1925	10	5	*10*	5
	TX	Keystone	1935	10	20	*10*	50
	TX	Salt Creek	1942	10	5	*10*	5
	TX	Seeligson	1938	10	200	*10*	200
	TX	Stephens County Regular	1915	10	10	*10*	10
	TX	T X L	1944	10	10	*10*	50
	TX	Talco	1936	10	20	*10*	20
	TX	Thompson	1921	10	20	*10*	20
	TX	Ward-Estes North	1927	10	20	*10*	10
	TX	West Ranch	1938	10	50	*10*	50
	UT	Greater Aneth	1956	10	5	*10*	10
	WY	Oregon Basin	1912	10	10	*10*	5
Top 100	**Volume Subtotal (billion bbls)**			82.4	13.9	***68.5***	1.3
Top 100	**Percentage of U.S. Total**			43.8%	53.4%	***42.2%***	46.5%

Ranking Codes: 1=Field nationally ranked in top 10 in category ; 2=top 20 ; 5=top 50 ; 10=top 100 ; 20=top 200 ; 50=top 500 ; 100=top 1,000 ; 200=top 2,000 ; 500=top 5,000 ; 1000=top 10,000 ; *=lower than top 10,000 ; – = zero volume.

Notes: •Field groups are listed in descending volumetric order with respect to the subject category (data italicized). Fields within each group are sorted alphabetically by State abbreviation and then by field name. •GF=Gulf of Mexico offshore Federal domain; PF=Pacific offshore Federal domain. •Crude oil statistics include lease condensate. •Natural gas statistics are defined on a wet, after lease separation basis.

Source: Energy Information Administration, Office of Oil and Gas.

Table 5. Top 100 U.S. Oil Fields Group-Ranked According to Annual Production, 1991 (Continued)

Rank	Location	Field Name	Discovery Year	Field Size Ranking Codes: Ultimate Recovery	Proved Reserves	Cumulative Production	Annual Production
	AL	Hatters Pond	1974	50	20	100	*10*
	CA	Huntington Beach	1920	2	5	2	*10*
	CA	Mount Poso	1923	10	20	10	*10*
	CA	San Ardo	1947	5	5	10	*10*
	CA	Yowlumne	1974	50	50	50	*10*
	CO	Wattenberg	1970	50	10	100	*10*
	FL & AL	Jay	1970	10	10	10	*10*
	GF	East Cameron SA Blk 321	1971	50	20	100	*10*
	GF	Eugene Island SA Blk 361	1973	100	20	100	*10*
	GF	Grand Isle Blk 43	1956	10	20	10	*10*
	GF	Green Canyon Blk 184	1981	100	20	500	*10*
	GF & LA	Main Pass Blk 73	1975	50	20	50	*10*
	GF	Main Pass SA Blk 311	1977	50	20	50	*10*
	GF	Mississippi Canyon Blk 281	1976	100	50	100	*10*
	GF	South Marsh Is SA Blk 128	1976	50	50	50	*10*
	GF	South Marsh Is SA Blk 130	1973	20	10	20	*10*
	GF & LA	South Pass Blk 27	1954	10	10	10	*10*
	GF	South Pass Blk 49	1974	50	20	50	*10*
	GF	South Pass EA Blk 62	1965	50	20	50	*10*
	GF & LA	South Pass SA Blk 78	1973	100	20	100	*10*
	GF	South Timbalier Blk 52	1950	50	20	100	*10*
51	GF	West Delta Blk 109	1975	50	20	100	*10*
	GF	West Delta Blk 79	1966	20	20	20	*10*
	LA	Port Hudson	1977	50	10	100	*10*
through	LA	South Pass Blk 24	1950	5	20	5	*10*
	NM	Dagger Draw North	1964	100	20	200	*10*
	NM	Hobbs	1928	10	10	10	*10*
100	OK	Golden Trend	1945	5	20	5	*10*
	OK	Hewitt	1919	20	20	20	*10*
	OK	Sooner Trend	1938	10	20	10	*10*
	PF	Beta	1976	20	5	50	*10*
	PF	Dos Cuadras	1968	20	10	20	*10*
	PF	Point Arguello	1981	20	2	500	*10*
	PF	Point Pedernales	1983	50	10	100	*10*
	TX	Alabama Ferry	1983	100	50	200	*10*
	TX	Cowden South	1930	20	20	20	*10*
	TX & NM	Dollarhide	1945	10	10	20	*10*
	TX	Goldsmith	1935	5	10	5	*10*
	TX	Katz	1951	50	50	50	*10*
	TX	Prentice	1950	20	5	20	*10*
	TX	Stephens County Regular	1915	10	10	10	*10*
	TX	Tom OConnor	1934	5	10	5	*10*
	TX	Ward-Estes North	1927	10	20	10	*10*
	TX	Wasson 72	1940	20	5	50	*10*
	UT	Altamont	1960	50	20	50	*10*
	UT	Bluebell	1949	20	10	50	*10*
	UT	Greater Aneth	1956	10	5	10	*10*
	WY	Hartzog Draw	1976	50	10	50	*10*
	WY	Lost Soldier	1916	20	20	20	*10*
	WY	Salt Creek	1889	5	10	5	*10*
Top 100	**Volume Subtotal (billion bbls)**			68.0	15.8	52.2	*1.5*
Top 100	**Percentage of U.S. Total**			36.1%	61.0%	32.1%	*56.0%*

Ranking Codes: 1=Field nationally ranked in top 10 in category ; 2=top 20 ; 5=top 50 ; 10=top 100 ; 20=top 200 ; 50=top 500 ; 100=top 1,000 ; 200=top 2,000 ; 500=top 5,000 ; 1000=top 10,000 ; *=lower than top 10,000 ; – = zero volume.

Notes: •Field groups are listed in descending volumetric order with respect to the subject category (data italicized). Fields within each group are sorted alphabetically by State abbreviation and then by field name. •GF=Gulf of Mexico offshore Federal domain; PF=Pacific offshore Federal domain. •Crude oil statistics include lease condensate. •Natural gas statistics are defined on a wet, after lease separation basis.

Source: Energy Information Administration, Office of Oil and Gas.

CONTAMINATION OF FRESH GROUND-WATER SUPPLIES IN SOUTHEASTERN NEW MEXICO

by

J. I. Wright
Engineer

New Mexico State Engineer Office
Roswell, New Mexico
May 1986

Contamination of fresh ground-water supplies by oil-production activities is a serious problem in parts of southeastern New Mexico. Personnel of both the New Mexico State Engineer Office, and the Oil Conservation Division of the Energy and Minerals Department, have been aware of the deterioration of the chemical quality of ground water in certain areas of southeastern New Mexico and have instigated considerable investigative and remedial work in an effort to control the problem. Unfortunately, however, the remedial actions taken to date have not eliminated the problem.

In general, there has been some degree of deterioration of the chemical quality of ground water in all the oil fields in which fresh water is present, and in some of these areas the quality of water has deteriorated to the point that wells drilled for water can no longer be used for the purpose for which they were originally drilled. The contamination of ground water by oil-production activities stems from:

1. Introduction of brine into fresh-water aquifers in consequence of leakage from brine-disposal pits, improperly constructed brine-disposal wells, poorly constructed oil wells, deteriorated and/or broken casing in oil wells, and improperly plugged oil wells; and

2. Introduction of hydrocarbons into fresh-water aquifers in consequence of poorly constructed oil wells, casing leaks in oil wells, and improperly plugged oil wells.

The discharge of contaminants into fresh-water aquifers in consequence of leakage from improperly constructed and/or deteriorating wells has been further enchanced by induced increases of formational pressures in connection with brine-disposal and secondary-recovery operations.

Historical records of chemical quality of produced water have been compiled for 1057 wells, most of which are located within the declared boundaries of the Lea County and Capitan Ground-Water Basins. Many of these wells have now been plugged and cannot be resampled, or have been abandoned and can only be resampled by means of a trip sampler; however, 481 of these wells were resampled in either 1984 or 1985. Of these 481 wells, 81 showed significant increases in the chloride content of produced water and 37 showed significant decreases in the chloride content of produced water. Only 7 of the latter 37

wells are actually believed to now produce water that is of improved chemical quality. The apparent decrease in the other 30 wells in believed to be due to sampling procedures.

It is difficult to draw valid conclusions from historical changes in chemical quality of produced water as allowance must be made for many factors that affect the reliability of available analyses. Laboratory standards are subject to considerable variation and comparison of an analysis of water pumped from a well with an analysis of water bailed from an abandoned, unequipped well may lead to erroneous conclusions if you cannot be absolutely sure that the sample collected by bailing represents water occurring at, or near, the bottom of the well. Differences in the length of time a well is pumped prior to sampling can also result in substantial differences in the chemical quality of water produced by that well.

Uncontaminated ground water produced from the Ogallala formation or from the alluvium in the area covered by this report ordinarily contains less than 100 parts per million (ppm) chloride. Water produced from Cretaceous rocks ordinarily contains less than 250 ppm chloride. Chloride concentrations in water produced from Triassic and older rocks vary considerably, depending in part on the depth of the well, and in part on the particular area in which the well is located.

Many complaints concerning ground-water contamination have come from residents of northern and southern Lea County, but only a few have been made by residents of the central part of the county. This difference in frequency of complaints is due, in my opinion, to the fact that wells in central Lea County are generally not drilled to the base of the water-bearing formation, (due to the greater thickness of the aquifer) whereas, nearly all wells in other areas of the county are drilled to the base of the water-bearing formation. Previous studies by this office have shown that water contaminated with oil-field brine, in consequence of its higher density, is ordinarily encountered at or near the base of fresh-water aquifers.

Maps as follows are included herewith:

1. Areas of known ground-water contamination in southeastern New Mexico, 1985.

2. Chloride content of ground water in selected wells in southeastern New Mexico, 1984-85; and

3. Change in chloride content of ground water in selected wells in southeastern New Mexico, 1979-1984-85.

Also included in this report are the following tables:

1. Chemical quality of water by well location.

2. Chemical quality of water by formation; and

3. Chemical analyses of water produced by wells in southeastern New Mexico, 1927 thru 1985.

The Eunice-Jal area and the area in the vicinity of the City of Hobbs appear to have the most widespread ground-water contamination. There is insufficient data for other areas in southeastern New Mexico to permit the drawing of conclusions as to whether or not the ground water is contaminated.

"Major investigations" shown on the maps are defined as investigations in which more than one man-week of work was involved.

The maps showing the chloride content of ground water in 1984-85 give a relatively good indication of the general quality of ground water in Lea County. Data for most other areas of southeastern New Mexico, however, is generally inadquate to accurately determine the general quality of the ground water. The years 1984-85 were selected for mapping for the reason that this was the period in which most of the water samples were collected.

The preceding comments regarding maps showing the chloride content of ground water in 1984-85 are also applicable to the maps showing the change in chloride content of ground water from 1979 through 1984-85.

It is apparent from work conducted to date that additional information is needed regarding the chemical quality of ground water in southeastern New Mexico. It is the author's opinion that water samples should be collected in all townships which have no historical chemical quality data, and that an expanded network of wells should be established for resampling every 5 years. In wells where the chloride content of the produced water is above normal, more frequent sampling should be considered.

It is anticipated that such additional data will facilitate the timely recognition of thus far unreported areas of only slightly contaminated water and will serve as a basis for establishing priorities for further investigations and remedial work in the region.

In the last few years the Environmental Improvement Division of the Health and Environment Department has done some investigations regarding the contamination of ground water in Lea County. Some of their information is included in this report; however, no attempt was made to include all of their work.

Chemical Analyses of Water Produced
by Wells in Southeastern New Mexico, 1927 thru 1985

Year	Analyses	Year	Analyses	Year	Analyses
1927	4	1947	2	1967	57
1928	0	1948	15	1968	50
1929	17	1949	1	1969	30
1930	5	1950	13	1970	27
1931	0	1951	6	1971	31
1932	0	1952	22	1972	116
1933	0	1953	32	1973	7
1934	0	1954	27	1974	74
1935	0	1955	15	1975	81
1936	0	1956	5	1976	209
1937	0	1957	39	1977	310
1938	12	1958	51	1978	244
1939	0	1959	5	1979	721
1940	3	1960	8	1980	78
1941	0	1961	30	1981	90
1942	16	1962	11	1982	39
1943	0	1963	8	1983	11
1944	0	1964	32	1984	769
1945	0	1965	410	1985	199
1946	0	1966	40		

Note: Same well may have been sampled several times during the same year.

AQUIFER EVALUATION FOR UIC:

SEARCH FOR A SIMPLE PROCEDURE

Submitted to:

Oil Conservation Division

Department of Energy and Minerals

State of New Mexico

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INTRODUCTION

Regulations adopted by the U.S. Environmental Protection Agency (EPA) as part of the Federal Underground Injection Control (UIC) program require protection of aquifers which are currently used for drinking water or which have a total dissolved solids (TDS) content of less than 10,000 mg/l (see 40 CFR Part 122). However, aquifers may be exempted from protection if they are or will be used for mineral, oil or geothermal energy production, or if they cannot provide drinking water for reason of economics, technology, gross contamination, or location above a zone which, due to well-related mining, is subject to subsidence or catastrophic collapse (40 CFR 146.04).

Procedures for identifying aquifers to be protected can be inferred from the Federal Register. Figure 1 is a flow chart which summarizes these procedures, which can be termed the "aquifer evaluation process". Application of Figure 1 to an area where injection is of concern will result in the classification of all rock units into one of four categories: protected aquifer, salt-water aquifer, exempted aquifer or non-aquifer. A protected aquifer is a rock unit which is a present or future underground source of drinking water. If the unit is not presently a drinking water resource, then by definition it has the following characteristics: it is capable of yielding significant amounts of water to a well or spring; the water is fresh (total dissolved solids or TDS no greater than 10,000 mg/l); and there are no economic or technical reasons for exempting it from protection. All rock units must be so defined unless they can be shown to fit into one of the other

of good porosity within the Artesia Group and San Andres Formation, and confirmed fluids having less than 10,000 mg/l TDS in some wells. However, neither the water-quality nor resistivity data were sufficient to show definite boundaries for the fresh water. This is because precise delineation of the lateral and vertical extent of the fresh water zones is inhibited by the complexity of the carbonate stratigraphy and close proximity to oil producing zones. Rapid gradation of lithologies within the Capitan Reef complex makes correlation of characteristic markers on logs difficult. Similarly, lithologic variability in the predominantly dolomite reservoirs of the San Andres Formation is such that there is no common impermeable section of any great lateral extent. One may encounter oil and water at the same depth within close lateral proximity. Because of these impredictable porosity intervals, we have designated the formations of southern Lea County to have "localized" occurences of moderately saline water.

OCCURANCE OF DEEP FRESH WATER

The next step in the analysis was to perform an in-depth analysis of a part of Lea County where the deep fresh water is especially prevalent (Figure X). The purpose was to identify the geologic controls of the fresh-water, so as to delineate the zones which may require UIC protection.

aquifers, Hiss suggests that the effects of recharge are diminishing, reducing the hydraulic load and isolating fresher waters already in place. To determine the feasibility of protecting the groundwater a more detailed investigation was performed on these areas.

SUMMARY OF IN-DEPTH STUDY

Based on the detailed literature search, analysis of logs and interpretation of geology in the study area, it is apparant that the detailed evaluation of aquifers pursuant to UIC guidance does produce results which differ from the existing State regulatory program which is based on less detailed information. The differences can be summarized as follows.

	State Program	UIC Program
Basis:	General geohydrologic knowledge of area	Detailed geohydrological study
Result:	Aquifers protected to base of Triassic; deeper units classed as salt-water aquifers	Some Paleozoic units contain contain fresh water in variable locations and must be considered as aquifers into which injection cannot occur unless there is a basis for exempting the aquifers from protection

APPENDIX 1. Aquifer Maps based on Reconnaissance Studies

From the literature search a number of basic findings were reached regarding the geohydrology of the area.

General Geology. The principal source of water in Lea County is the Tertiary Ogallala Formation, a fine-grained, poorly consolidated, calcareous sand which crops out at or near the surface of all but the western edge of the county. In northern Lea County, where it covers most of the High Plains, the Ogalla Formation ranges in thickness from 100-250 feet; in general, the lower half of the unit is saturated. High Plains water wells yield up to 1700 gpm. The Ogallala in the High Plains is topographically isolated from the Ogallala in the rest of the county; because there are no permanent streams, all recharge in the High Plains is derived from local precipitation. Because the Ogallala dips very shallowly to the south and east, there is some groundwater movement in these directions.

The Ogallala Formation in southern Lea County thins to the west and locally is covered by 2 Quaternary alluvium which ranges from 0-400 feet thick. In many localities the Ogallala is not saturated, but along stream valleys and over the Eunice Plain, not only the Ogallala but also some of the overlying alluvium may be saturated. Water wells completed in the Ogallala Formation of southern Lea County yield from 30-700 gpm. Recharge in the southern part of the county is from both local precipitation and through-flowing streams.

The Ogallala Formation is underlain in scattered locations by unnamed Cretaceous shales and limestones. The Cretaceous sedimentary rocks are a major source of water only in the northern part of the county where the Ogallala is very thin. They yield water which is slightly more saline than that from the Ogallala, but the water is still of good quality.

Sandstones and shales of the Triassic Dockum Group underlie the Cretaceous sedimentary rocks. The Dockum Group underlies most of Lea County, but water is produced from it primarily in the southwestern and far northwestern parts of the county where overlying sediments are thin and/or unsaturated. Wells completed in the Dockum generally yield 10-15 gpm. Dockum waters average 500 mg/l sulfate, considerably higher than the 200 mg/l average of the overlying units. Recharge of the Dockum results from precipitation on up-dip outcrops of the formations along the western side of the county and from infiltration from overlying formations.

Most data dources on Lea County ground-water depict the base of useable fresh water as the bottom of the Rustler Formation (Nicholson and Clebech, 1961). W.L. Hiss (1975) presents evidence of groundwater containing less than 10,000 mg/l TDS within aquifers at depths greater than the Rustler, although none is now being used for human consumption. A study of these aquifers within Lea County was necessary to relate the feasibility and extent of possible designation of these aquifers as an underground drinking water source.

U.S. Dept. of Agricultural Economics (1943), Burnes, Ellis, et al. (1949), Yates and Galloway (1954), Minton (1956), Dinwiddie (1963), Chen and Long (1965), Long (1965), Havens (1966), Havens (1966), Cronin (1969), Theis (1969), Hudson (1971), Mourant (1971), Theis (1971), Brown and Signor (1972), Brown and Signor (1973), Buchnan (1973), Signor (1973), Galloway (1975), Jacobs (1975), N.M. I.S.C. and N.M. S.E. (1975), Sorensen (1977), Brown and Wood (1978), Akin and Jones (1979).

3. A few articles provided information on the history of brine contamination incidents. All such incidents involved contamination of the Ogallala Formation, with brine ponds being the principal source of the problem. These references were useful as background information for UIC program, but did not bear directly on the evaluation of aquifers. The references included: Rice (1958), Parker (1971), Bigbee and Taylor (1972), Wright (1979), Bigbee (1972).

4. A few references which provide important information on Permian aquifers. These include regional studies which focus on the oil-related brine aquifers of the Permian Basin: Nicholson (1954), Borton (1960-67), Hood (1962), McNeal (1965), Hiss (1969), Chavez (1968-1979), Hiss (1970), Hiss (1973), George (1974), Hiss (1975a; 1975b), Lambert (1978). Also included are very localized studies of the geohydrology of an area in which the analysis of aquifers is carried well into the Paleozoic: Borton (1948), Galloway (1959), West (1961), Cooper (1962), Mercer (1977). As will be discussed below, these references indicated that some fresh water (TDS less than 10,000 mg/l) does occur in a few of the Permian rock units. Therefore, it is necessary to determine if these rock units are to be classified as protected aquifers, or

The first step in the in-depth study of south-central Lea County was to perform a comprehensive literature search which included dozens of published and unpublished references on the geology and hydrology of the area. This also included review of existing water-quality records for wells which obtain water from Paleozoic rocks. The purpose of the in-depth literature search was to provide a comprehensive basis for the understanding of the geohydrology of a typical part of Lea County, and to produce specific maps and cross-sections appropriate to a UIC program, such as: geologic maps and sections; water-table maps; maps and sections showing water quality; and a stratigraphic column. This level of detail is commensurate with that suggested in the EPA guidance previously cited. A bibliographic form was completed for each reference (see Figure 6). Then, those references which appeared to have the best information were reviewed in detail. Based on the bibliographic forms, the references were categorized as follows.

1. Reports or articles which discuss water resources at a regional level. These are the same references reviewed during the initial study, and were cited previously.

2. References which discuss the known aquifers of Triassic age or younger (especially the Ogallala Fm.), or which discuss in general the water supplies of the area. Such aquifers would be protected by UIC without question, and thus while these references could be of value in site-specific UIC permitting, they are of no value in the overall aquifer evaluation process. Examples of such references include: Nye (1930), Theis (1937), Conover and Akin (1942),

viewed included: Garza and Wesselman (1959), Ash (1961a; 1961b), Nicholson and Clebsch (1961), Ash (1961), Ash (1962), West and Broadhurst (1975), U.S. Bureau of Reclamation (1972¢). Figure 3 is a stratigraphic column for the study area which summarizes the results of the literature study.

The conclusion reached from the literature is that most drinking water in Lea County is obtained from shallow rock units (dominantly the Tertiary Ogallala Formation), and that there is no significant amount of fresh water in rocks older than Triassic. This concept is the basis for State regulations which permit oil field brines to be injected into rocks of Permian age or older. Figure 4 is a map showing the base of the Triassic (also the top of the Permian Rustler Formation). According to the general literature and the State regulations, aquifers below this elevation do not require protection pursuant to the UIC program.

IN-DEPTH LITERATURE SEARCH

A detailed aquifer evaluation study was performed in a 144-square mile in the south-central portion of the County (Figure 5), in order to determine if if the reconnaissance study provided an accurate evaluation of geohydrologic conditions. The initial methods used were those developed in the Artesia study: review of technical reports; analysis of well logs; and analysis of borehole geophysics data.

three categories. Salt-water aquifers are rock units which contain water having a total dissolved solids content (TDS) in excess of 10,000 mg/l. Non-aquifers are rock units which are not able to yield significant amounts of water to a well or spring. An exempted aquifer is a rock unit which is not a source of drinking water for reason of economics, technology, gross contamination, or relationship to subsidence or collapse zones.

EPA guidance regarding aquifer evaluation indicates that it should be should be relatively thorough and detailed (Ground Water Program Guidance No. 4.2). The agency specifically suggests the use of techniques such as: maps and cross-sections showing TDS isocons; maps showing depth to base of fresh water; maps of aquifer thickness, elevation, and saturated thickness; maps of water levels in different aquifers at different dates; and many others.

In 1979 the New Mexico Oil Conservation Division (OCD) performed a prototype study to develop and assess procedures for the evaluation of aquifers. The study involved geohydrological mapping in a geologically complex 144 square-mile area near Artesia, Eddy County, New Mexico. Procedures used and maps produced followed EPA guidance. The results indicated that rock units can be mapped and evaluated as required by the UIC program. However, studies of the scope suggested by the EPA guidance were estimated to cost at least $10 per square mile, which would impose a considerable cost on the statewide implementation of the UIC program.

Interestingly, the in-depth analysis undertaken in the Artesia area produced a result which was effectively the same as the principals of injection control which had long been enforced by the State OCD. The results of aquifer classification from the State program and the in-depth (UIC) analysis can be summarized as follows.

	State Program	UIC Program
Basis:	General geohydrologic knowledge of area	Detailed geohydrological study
Result:	Aquifers protected to base of existing drinking water aquifer; deeper units classed as salt-water aquifers	Same as State program except that some of the deeper units contain fresh water in isolated low porosity zones and are better classified as non-aquifers

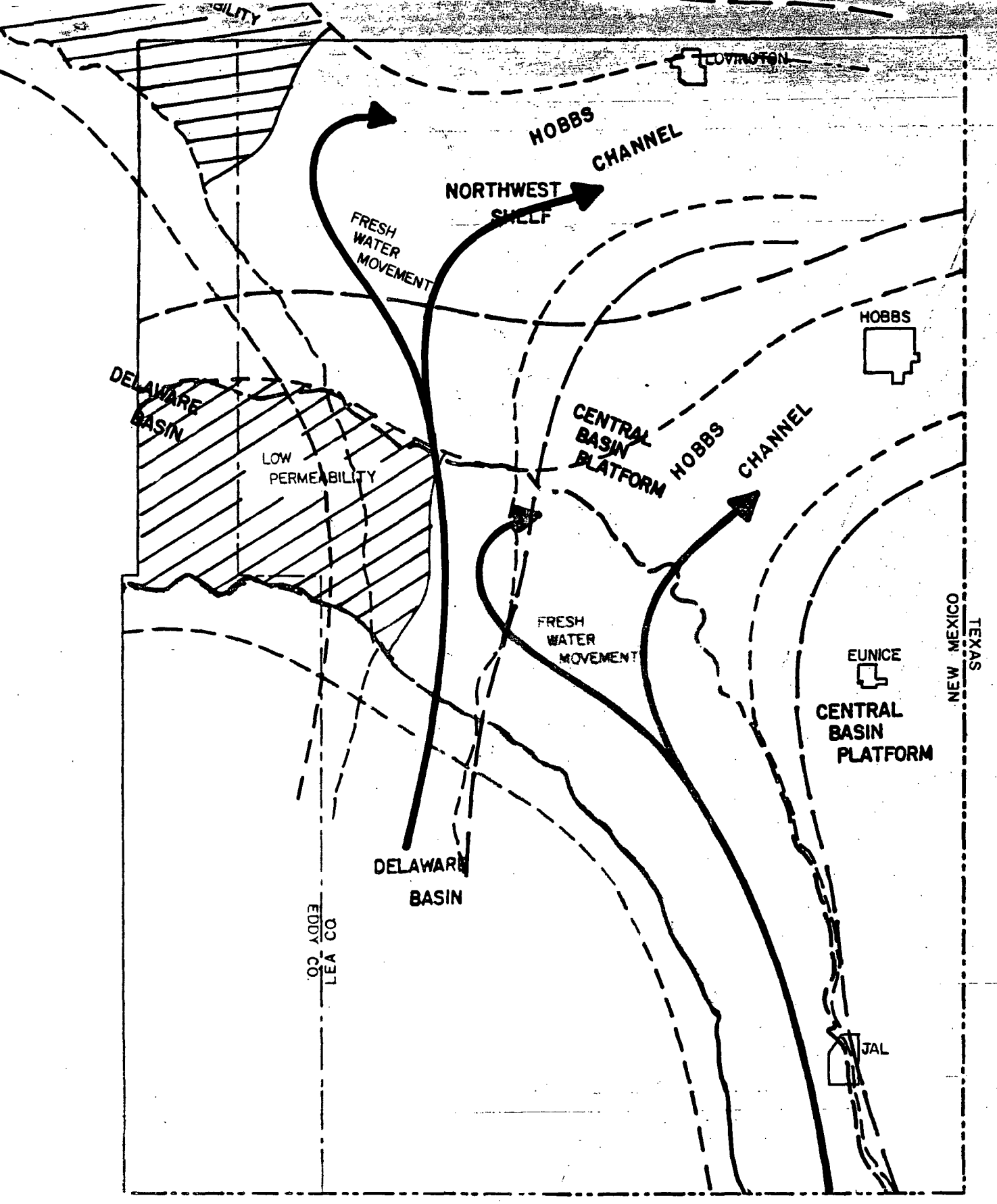
In Artesia the major benefit of a detailed geohydrologic study was to show that some rock units deemed by the State to be salt-water aquifers are in fact non-aquifers which contain fresh water. The rules for injection control are not changed by such a distinction, and consequently State regulations are correct in allowing injection below the base of the deepest existing underground source of drinking water. Resources invested in the more detailed UIC study provided no additional protection of the fresh-water resource.

On the basis of this initial prototype study, it was hypothesized that an in-depth analysis may not be required to ensure the accurate evaluation of aquifers. Rather, evaluations might be performed satisfactorily at a reconnaissance level, using procedures similar to those already applied by the State. Such an approach would reduce costs of implementing the UIC program, without endangering water supplies. In 1980 OCD performed a second study aimed at testing this hypothesis. The study began by applying Figure 1 to an injection area using basic data and existing State regulatory concepts. Next, an in-depth study according to the original UIC guidance was performed to determine if the simple approach would result in the potential for contamination of potential drinking-water aquifers. Finally, the study followed a prototype UIC permit application through the prospective regulatory mill, to see if there was a need to have applicants provide a site-specific aquifer evaluation as part of the permitting requirements.

The area chosen for study was Lea County, which is the leading oil producing County in New Mexico, and an area where there is considerable injection for both secondary recovery and brine disposal (Figure 2).

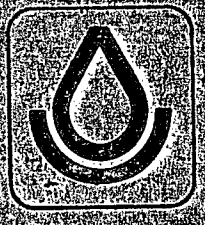
INITIAL CLASSIFICATION

The initial classification of aquifers in Lea County was based on studies of regional geohydrology published in readily available reports, and supplemented by a review of the existing State regulatory program. References re-


LOVINGTON
HOBBS
CHANNEL
NORTHWEST
SHELF
FRESH
WATER
MOVEMENT
HOBBS
DELAWARE
BASIN
LOW
PERMEABILITY
CENTRAL
BASIN
PLATFORM
HOBBS
CHANNEL
FRESH
WATER
MOVEMENT
EUNICE
CENTRAL
BASIN
PLATFORM
NEW MEXICO
TEXAS
DELAWARE
BASIN
EDDY CO.
LEA CO.
JAL

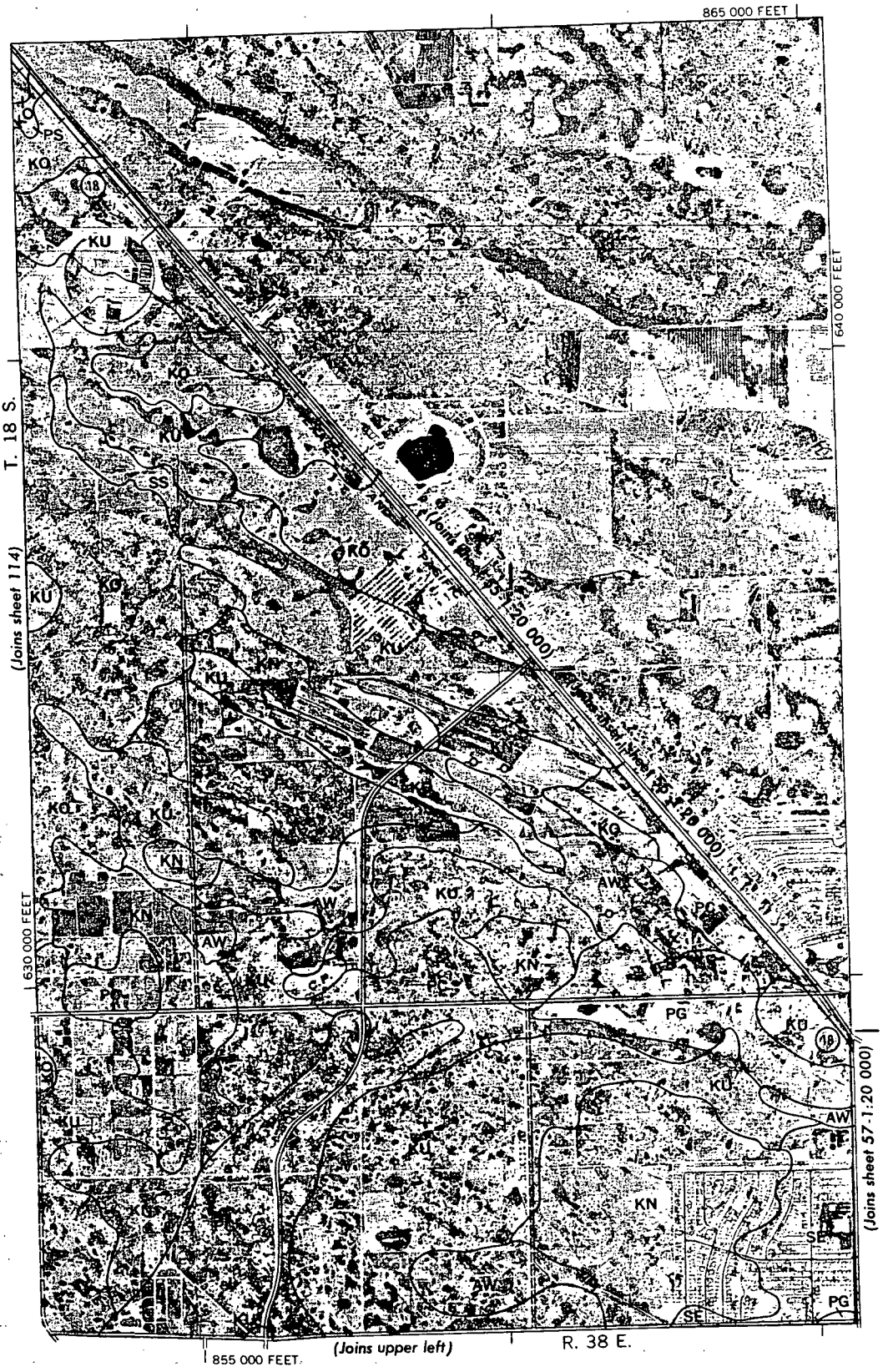
SOIL SURVEY

Lea County, New Mexico



UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
In cooperation with
NEW MEXICO AGRICULTURAL EXPERIMENT STATION
Issued January 1974

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SOI
933



5000 and 10 000-FOOT GRID TICKS

Kermit-Wink complex, 0 to 3 percent slopes (KE).—This soil complex is about 70 percent Kermit fine sand, about 20 percent Wink fine sand, and about 10 percent inclusions of Active dune land, Maljamar, Palomas, Berino, Cacique, and Pyote soils.

These are deep sandy soils subject to severe soil blowing. The landscape is one of hummocks and dunes, resulting from the accumulation and removal of sands. The Kermit soil is on stabilized sand dunes, and the Wink soil is in depressions.

Except for the narrower range in slope, the Kermit soil is similar to that in Kermit-Palomas fine sands, 0 to 12 percent slopes. The Wink soil is similar to Wink fine sand (see Wink Series) except that in places the surface layer and subsoil are eroded and the substratum of white, limy sandy loam is exposed.

This complex is used only as range and wildlife habitat. Kermit soil: Dryland capability unit VIIe-10; Sand Hills (SD) range site; wildlife habitat group H. Wink soil: Dryland capability unit VIIe-10; Deep Sand range site; wildlife habitat group H.

Kermit soils and Dune land, 0 to 12 percent slopes (KM).—This mapping unit is in the southern part of Lea County. It is about 45 percent Kermit soils, 45 percent Active dune land, and about 10 percent Maljamar, Palomas, Wink, and Pyote soils. The Kermit soil is hummocky and undulating and is adjacent to, or surrounds, the Dune land areas. Some areas consist almost entirely of Kermit soil, and some are mostly Dune land.

Dune land consists of large barren sand dunes, or hills and ridges of wind-deposited sands that actively shift and drift with the wind. It is described under the heading "Active Dune Land." The Kermit soil is similar to that in Kermit-Palomas fine sands, 0 to 12 percent slopes, but its surface layer is fine sand to coarse sand.

These soils are used as range, wildlife habitat, and recreational areas. Kermit soil: Dryland capability unit VIIe-10; Sand Hills (SD) range site; wildlife habitat group H. Dune land: Dryland capability unit VIIIe-1; wildlife habitat group A.

Kimbrough Series

The Kimbrough series consists of well-drained loams, gravelly loams, or gravelly fine sandy loams overlying indurated caliche at a depth of 6 to 20 inches. These soils formed in wind-deposited and water-deposited sediments on uplands in the northern half of Lea County. Slopes are 0 to 3 percent. The vegetation consists of short and mid grasses and shrubs. The average annual precipitation is 12 to 15 inches, the average annual air temperature is 58° to 60° F., and the frost-free season is 195 to 205 days. Elevations range from 3,600 to 4,200 feet. Kimbrough soils are associated with Lea, Stegall, Portales, and Arvana soils.

Typically, the surface layer is dark grayish-brown gravelly loam about 6 inches thick. In places it is loam. The substratum is white indurated caliche (fig. 6).

Kimbrough soils are used for range, wildlife, and limited irrigated farming. They are a source of crushed caliche for use in construction.

Kimbrough gravelly loam, 0 to 3 percent slopes (Kg).—This soil is on prairie uplands. It is known locally as "scabland." Included in mapping are areas of Stegall, Lea, Slaughter, and Arvana soils.

Representative profile of Kimbrough gravelly loam, on north edge of a caliche pit, SW¼NE¼ sec. 16, T. 17 S., R. 37 E.:

A11—0 to 2 inches, dark grayish-brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) when moist; moderate, thin, platy structure; slightly hard, friable when moist, sticky and slightly plastic when wet; few caliche fragments on the surface and intermixed; mildly alkaline (pH 7.8), slightly calcareous; abrupt boundary. 2 to 6 inches thick.

A12—2 to 6 inches, dark grayish-brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) when moist; moderate, medium, subangular blocky structure; slightly hard, very friable when moist, sticky and slightly plastic when wet; many, sharp-angled, hard caliche fragments intermixed; mildly alkaline (pH 7.8), strongly calcareous; abrupt boundary. 4 to 10 inches thick.

Ccam—6 inches, white (10YR 8/1), indurated caliche, fragmental and indurated to a depth of about 30 inches, grading to weakly cemented, white caliche below. Several feet to many feet thick.

The A horizon ranges from gravelly loam to gravelly fine sandy loam in texture and from 7.5YR to 10YR in hue. It is dark grayish brown when dry and very dark grayish brown when moist. In areas where this horizon is gravelly, the depth to indurated caliche is 6 to 16 inches. The caliche is either fragmentary or massive.

This soil is moderately permeable. Runoff is slow to medium. Water intake is moderate, and the available water holding capacity is 1 to 2 inches. Roots penetrate to a depth of 6 to 16 inches. Erosion is a slight hazard.

This soil is too shallow to be suitable for crops. It is used for range and wildlife. It is also a source of crushed caliche for use in construction. Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K.

Kimbrough gravelly loam, 0 to 3 percent slopes (KO).—This soil is on low ridges in the northern part of Lea County. Included in mapping are areas of Lea, Sharvana, Stegall, and Slaughter soils.

This soil is used as range and wildlife habitat. It is also a source of crushed caliche for use in construction. Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K.

Kimbrough loam, 0 to 1 percent slopes (Kb).—This soil is in narrow swales, in small playas, and on low broad ridges between swales. It forms a narrow border between Lea loam in the swales and the adjacent sloping Kimbrough gravelly loam. It is underlain by indurated caliche at a depth of 10 to 20 inches. Included in mapping and making up about 15 percent of the mapping unit are areas of Sharvana, Lea, and Stegall soils.

This soil is similar to Kimbrough gravelly loam, 0 to 3 percent slopes, but its surface layer is loam about 16 inches thick. The available water holding capacity is 1.5 to 3.5 inches. Roots penetrate to a depth of 10 to 20 inches.

This soil is used as irrigated cropland, wildlife habitat, recreational areas, and range. Irrigated capability unit IVs-2; dryland capability unit VIs-2; Shallow (HP) range site; wildlife habitat group D.

Kimbrough loam, 1 to 3 percent slopes (Kc).—This soil is on slopes between ridges and swales in the northern

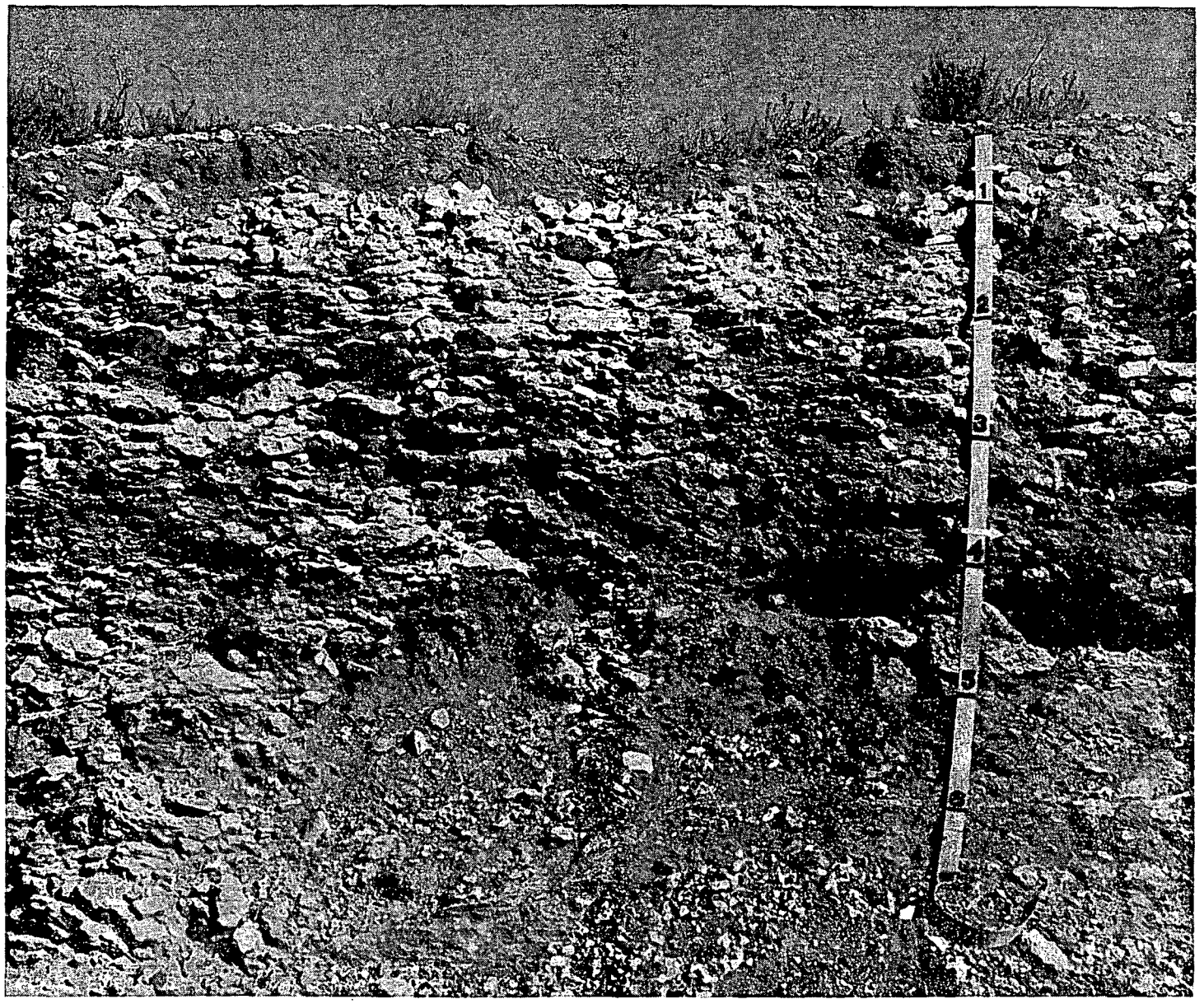


Figure 6.—**Profile of Kimbrough gravelly loam, 0 to 3 percent slopes. The thin surface layer rests on beds of white indurated caliche.**

part of Lea County. Included in mapping are areas of Sharvana soils and Kimbrough gravelly loam, 0 to 3 percent slopes.

This soil is similar to Kimbrough gravelly loam, 0 to 3 percent slopes, but its surface layer is loam about 12 inches thick. Runoff is medium. Available water holding capacity is 1.5 to 3 inches. Roots penetrate to a depth of 10 to 18 inches.

This soil is used as range and wildlife habitat. Dryland capability unit VIs-2; Shallow (HP) range site; wildlife habitat group K.

Kimbrough loam, 0 to 3 percent slopes (KN).—This soil is in the northern part of Lea County. Included in mapping are small areas of Sharvana, Lea, and Stegall soils and Kimbrough gravelly loam, 0 to 3 percent slopes.

This soil is similar to Kimbrough gravelly loam, 0 to 3 percent slopes, but its surface layer is loam about 14 inches thick. Available water holding capacity is 1.5 to 3.5 inches. Roots penetrate to a depth of 10 to 20 inches.

This soil is used as range and wildlife habitat. Dryland capability unit VIs-2; Shallow (HP) range site; wildlife habitat group K.

Kimbrough-Lea complex (0 to 3 percent slopes) (Kh).—This complex is about 60 percent Kimbrough gravelly loam, 25 percent Lea loam, 10 percent inclusions of Stegall and Arvana soils, and 5 percent inclusions of Slaughter and Sharvana soils. In places the Kimbrough and Lea soils are about equally distributed.

The generally dominant Kimbrough soil is on slightly convex areas or on low knolls. It is very shallow over a thick bed of indurated caliche. The Lea soil has a dark grayish-brown to brown surface layer and a grayish-

brown to brown loam subsoil (see Lea Series). Indurated caliche is at a depth of 20 to 40 inches.

The soils in this complex are used as range, wildlife habitat, and recreational areas. They are also a source of caliche for use in road construction. Kimbrough soil: Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K. Lea soil: Dryland capability unit VIIs-1; Loamy range site; wildlife habitat group K.

Kimbrough-Lea complex (0 to 3 percent slopes) (KU).—In some areas this complex is about 50 percent Kimbrough gravelly loam and 25 percent Lea loam, and in a few about 40 percent Kimbrough soils and 40 percent Lea soils. It is 20 to 25 percent inclusions of Stegall, Arvana, Slaughter, and Sharvana soils. The Kimbrough soil is gently sloping and is on the tops and sides of low ridges. The Lea soil is nearly level and is in swales between the ridges.

The soils in this complex are used as range, wildlife habitat, and recreational areas. They are also a source of caliche for use in construction. Kimbrough soil: Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K. Lea soil: Dryland capability unit VIIs-1; Loamy range site; wildlife habitat group K.

Kimbrough-Sharvana complex (0 to 3 percent slopes) (Ks).—This complex is on smooth broad prairies in association with the Kimbrough-Lea complex in the northern part of Lea County. It is about 60 percent Kimbrough gravelly loam, 25 percent Sharvana fine sandy loam, and 15 percent inclusions of Slaughter, Stegall, and Arvana soils.

The Kimbrough soil is underlain by indurated caliche at a depth of 6 to 16 inches. The Sharvana soil is similar to Sharvana loamy fine sand (see Sharvana Series), but its surface layer is fine sandy loam about 6 inches thick.

These soils are eroded in places. Soil blowing has removed most of the original surface layer in old abandoned fields and exposed caliche at the surface, or it has exposed fragments of caliche and the reddish-brown sandy clay loam subsoil of the Sharvana soil. The Kimbrough soil is on slightly elevated level areas and has a few small caliche pebbles on the mounds. The underlying caliche undulates irregularly near the surface. Runoff generally accumulates in small intermittent lakes and potholes.

These soils are used for range and wildlife and as a source of caliche. Kimbrough soil: Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K. Sharvana soil: Dryland capability unit VIIs-1; Sandy range site; wildlife habitat group K.

Kimbrough-Sharvana complex (0 to 3 percent slopes) (KX).—This complex is about 55 percent Kimbrough gravelly loam, 25 percent Sharvana fine sandy loam, and 20 percent inclusions of Slaughter, Stegall, and Arvana soils. The Kimbrough soil is gently sloping and is on the tops and sides of low ridges in the northern part of Lea County. The Sharvana soil is nearly level to gently sloping and is between the ridges. It is similar to Sharvana loamy fine sand, but its surface layer is fine sandy loam about 6 inches thick.

The soils in this complex are used for range and wildlife and as a source of caliche. Kimbrough soil: Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K. Sharvana soil: Dryland capability unit VIIs-1; Sandy range site; wildlife habitat group K.

Largo Series

The Largo series consists of well-drained, calcareous soils that have a light loam surface layer underlain by loam to clay loam. These gently sloping soils are on alluvial fans below outcrops of Triassic materials, in the southern part of Lea County. They formed in calcareous loamy alluvium. Slopes are 0 to 3 percent. The vegetation is short and mid grasses, forbs, and shrubs. The average annual precipitation is 10 to 12 inches, the average annual air temperature is 60° to 62° F., and the frost-free season is 190 to 200 days. Elevations range from 3,200 to 3,700 feet. These soils are associated with Pajarito and Palomas soils.

Typically, the surface layer is brown light loam about 6 inches thick. The next layer is reddish-brown to yellowish-red stratified loam, light silty clay loam, and clay loam about 24 inches thick. The substratum, to a depth of about 60 inches, is weak red silty and clayey shale. These soils are calcareous throughout.

Largo soils are used as range, wildlife habitat, and recreational areas. Indian artifacts can be found in this area.

Largo-Pajarito complex (0 to 3 percent slopes) (LP).—The soils in this complex formed on alluvial fans and plains and on foot slopes having outcrops of Triassic red-bed material. This complex is about 45 percent Largo loam, about 40 percent Pajarito loamy fine sand, and 15 percent inclusions of Palomas and Maljamar soils. It occurs only in the Southern Desertic Basins, Plains, and Mountains Resource Area in the southern part of Lea County.

The Largo soil is on alluvial plains and lower alluvial fans near deep gullied channels or in valley-filled channels where overflow and flooding are common after torrential rains.

Representative profile of Largo loam in an area of Largo-Pajarito complex, one-half mile south of State Highway No. 128, northwest of Jal, about 0.3 mile east of Jal Dump grounds, sec. 24, T. 25 S., R. 36 E.:

A11—0 to 1 inch, brown (7.5YR 5/4) fine sandy loam, dark brown (10YR 4/4) when moist; weak, thin, platy structure; slightly hard, very friable when moist, slightly sticky and slightly plastic when wet; many fine roots; many fine interstitial pores; few dark organic stains; mildly alkaline (pH 7.7), slightly calcareous; abrupt boundary. 0 to 1 inch thick.

A12—1 to 6 inches, brown (7.5YR 5/5) light loam, dark brown (10YR 4/4) when moist; moderate, thick, platy and weak, fine, granular structure; soft, very friable when moist, slightly sticky and slightly plastic when wet; few fine roots; few coarse tubular pores; few organic stains; few worm casts; few root channels; few mycelia; mildly alkaline (pH 7.7), slightly calcareous; abrupt boundary. 4 to 12 inches thick.

AC1—6 to 13 inches, reddish-brown (5YR 5/4) loam, reddish brown (5YR 4/4) when moist; weak, coarse, subangular blocky and moderate, medium, granular structure; hard, firm when moist, sticky and plastic when wet; few fine roots; few small shale fragments intermixed; many worm casts; moderately alkaline (pH 7.9), strongly calcareous; clear boundary. 6 to 10 inches thick.

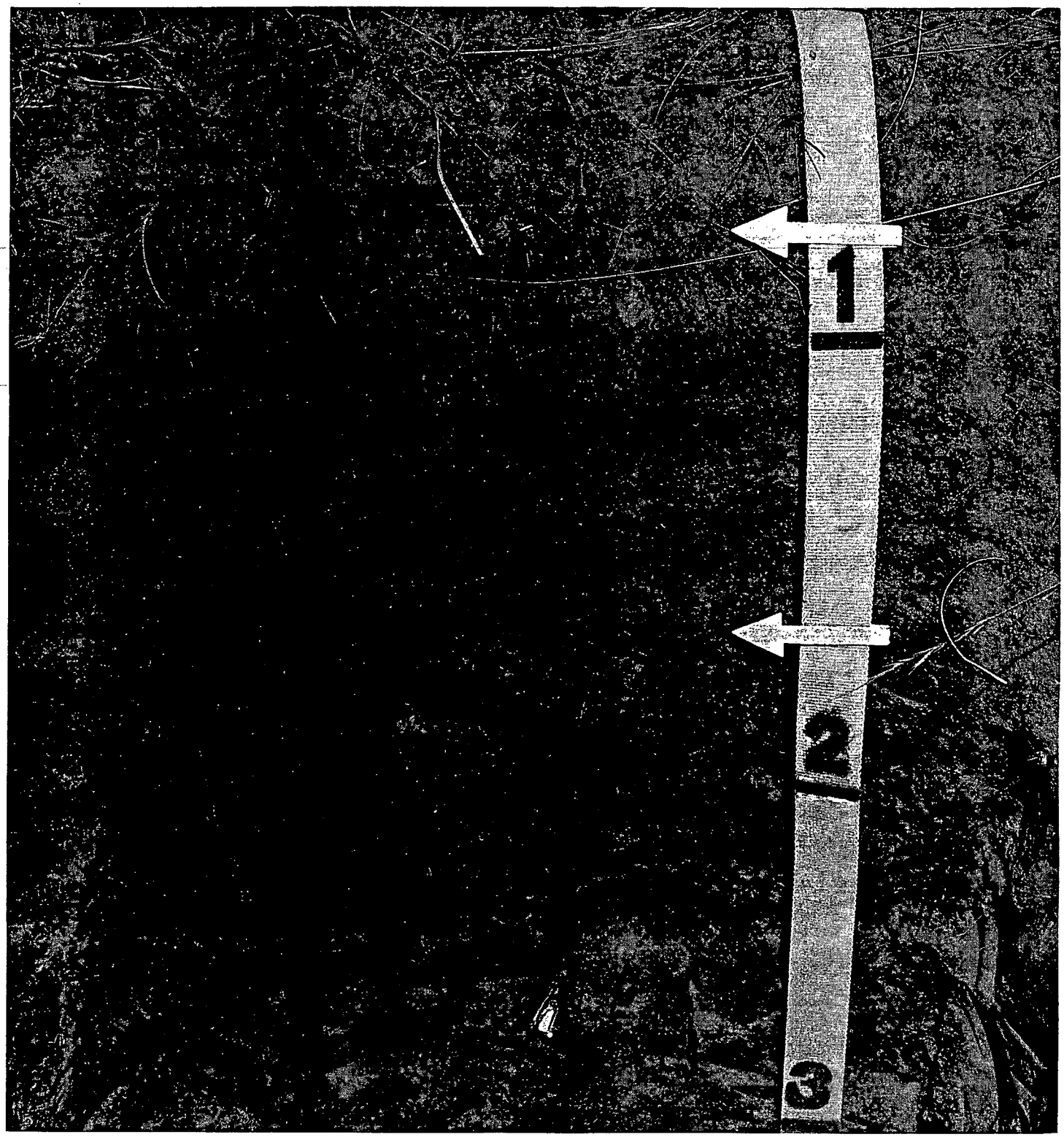


Figure 8.—**Profile of Patricia fine sand. Lower arrow shows typical depth to boundary between surface layer and sandy clay loam subsoil.**

Portales Series

The Portales series consists of well-drained soils that have a light clay loam subsoil. These soils are on upland plains. They formed in strongly calcareous, wind-deposited and water-deposited sediments. Slopes are 0 to 3 percent. The vegetation consists of short and mid grasses and shrubs. The average annual precipitation is 12 to 16 inches, the average annual air temperature is 58° to 60° F., and the frost-free season is 190 to 205 days. Elevations range from 3,600 to 4,000 feet. These soils are associated with Arch, Mansker, and Gomez soils.

Typically, the surface layer is dark-brown to grayish-brown loam about 12 inches thick. In places it is fine sandy loam. The subsoil is pale-brown light clay loam about 14 inches thick. The substratum, to a depth of 60 inches, is very pale brown chalky loam (fig. 9). The soil is calcareous throughout.

Portales soils are used for irrigated and dryland crops, range, recreational areas, and wildlife.

Portales loam, 0 to 1 percent slopes (Ph).—This soil is in depressions, swales, and along playa lakes in the north-central and northeastern parts of Lea County. Included in mapping are small areas of Mansker and Zita soils.

Representative profile of Portales loam, in the approximate center of the east-west line of sec. 26, T. 14 S., R. 38 E., the north side of the road, 0.45 mile west of New Mexico-Texas State line and 0.4 mile south of irrigation well:

A11—0 to 8 inches, dark-brown (10YR 4/3) loam, very dark grayish brown (10YR 3/2) when moist; weak, fine granular structure; slightly hard, friable when moist, slightly sticky and slightly plastic when wet; common fine roots; few fine tubular pores; few, fine, soft calcium carbonate concretions; mildly alkaline (pH 7.6), slightly calcareous; clear boundary. 5 to 10 inches thick.

A12—8 to 12 inches, grayish-brown (10YR 5/2) loam, dark grayish brown (10YR 4/2) when moist; weak, fine,

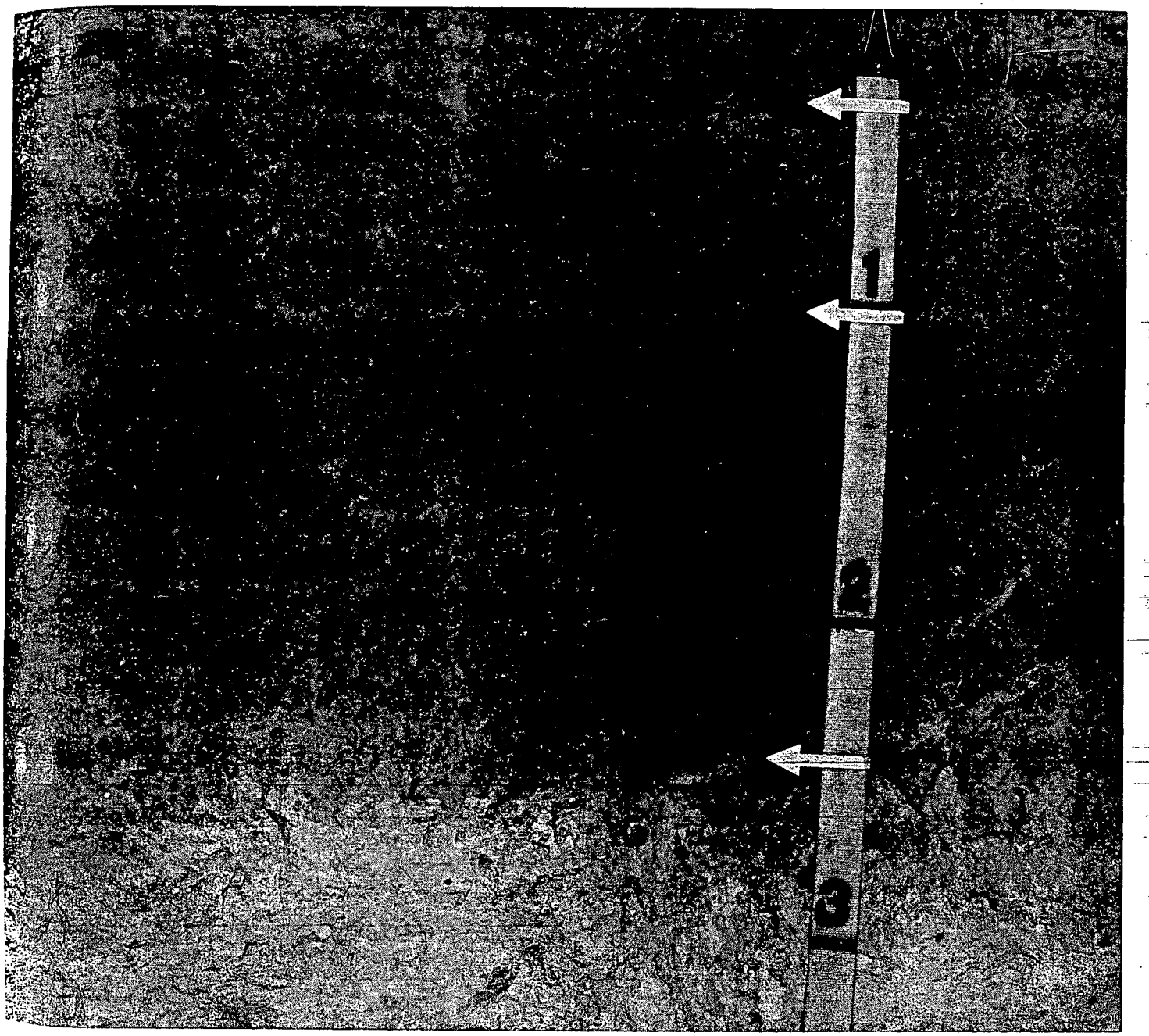


Figure 9.—**Profile of Portales loam. Soft caliche is at a depth of 20 to 36 inches.**

granular and weak, medium, subangular blocky structure; slightly hard, friable when moist, slightly sticky and slightly plastic when wet; common fine roots; few fine tubular pores; few fine calcium carbonate concretions; mildly alkaline (pH 7.6), slightly calcareous; gradual boundary. 3 to 6 inches thick.

B2—12 to 26 inches, pale-brown (10YR 6/3) light clay loam, grayish brown (10YR 5/2) when moist; weak, medium, subangular blocky structure; hard, friable when moist, sticky and plastic when wet; many fine roots; many fine tubular pores; common, fine, soft calcium carbonate concretions; moderately alkaline (pH 8.2), strongly calcareous; clear boundary. 12 to 20 inches thick.

Cca—26 to 60 inches, very pale brown (10YR 8/3) chalky loam mixed with silty soils, very pale brown (10YR 7/3) when moist; weak, fine, granular structure; soft, friable when moist, slightly sticky and slightly plastic when wet; moderately alkaline (pH 8.4), strongly calcareous.

The A horizon ranges from 7.5YR to 10YR in hue and from 3 to 5 in value. The B horizon ranges from 7.5YR to 10YR in hue and from 5 to 6 in value. The Cca horizon is 25 to 50 percent calcium carbonate. Depth to the Cca horizon is 20 to 36 inches.

This soil is moderately permeable. Runoff is slow. Water intake is moderate, and the available water holding capacity is 9 to 11 inches. Roots penetrate to a depth of 20 to 36 inches to the strong lime zone. Soil blowing is a moderate hazard.

This soil is used for irrigated and dryland crops, range, and wildlife. Irrigated capability unit IIe–3; dryland capability unit IVe–2; Loamy range site; wildlife habitat group B.

Portales loam, 1 to 3 percent slopes (Po).—This soil is on low ridges in the north-central and northeastern parts of Lea County. Except for slope, it is similar to Portales loam, 0 to 1 percent slopes. Slopes are short. Included in mapping are small areas of Mansker and Zita soils.

Runoff is medium. Water erosion and soil blowing are moderate hazards.

This soil is used as cropland, range, and wildlife habitat. Irrigated capability unit IIIe-6; dryland capability unit IVe–2; Loamy range site; wildlife habitat group B.

Portales loam, 0 to 3 percent slopes (PC).—This soil is in the northern part of Lea County. Except for slope, it is similar to Portales loam, 0 to 1 percent slopes. Included in mapping are areas of Mansker, Zita, Stegall, and Lea soils.

Runoff is slow to medium. Water erosion and soil blowing are moderate hazards.

This soil is used as range, wildlife habitat, and recreational areas. Dryland capability unit IVe-2; Loamy range site; wildlife habitat group B.

Portales fine sandy loam, 0 to 1 percent slopes (Pe).—This soil is in the north-central and northeastern parts of Lea County. It is similar to Portales loam, 0 to 1 percent slopes, but it occupies slightly higher positions and has a fine sandy loam surface layer. In some places the substratum is light-gray chalky loam. Included in mapping are areas of Mansker, Zita, and Gomez soils.

Soil blowing is a severe hazard. The available water holding capacity is 8 to 10 inches.

This soil is used for irrigated and dryfarmed crops, pasture, and range. Irrigated capability unit IIe-9; dryland capability unit IVe-3; Sandy range site; wildlife habitat group B.

Portales fine sandy loam, 1 to 3 percent slopes (Pf).—This soil is similar to Portales loam, 0 to 1 percent slope except for surface layer texture and slope. Included i mapping are small areas of Mansker, Simona, and Gome soils.

Runoff is medium, and the available water holdin capacity is 8 to 10 inches. Soil blowing is a severe hazar

This soil is used for irrigated and dryfarmed crop range, and wildlife. Irrigated capability unit IIIe–7 dryland capability unit IVe–3; Sandy range site; wildli habitat group B.

Portales and Gomez fine sandy loams (0 to 3 percer slopes) (PG).—This mapping unit is about equal par Portales fine sandy loam and Gomez fine sandy loa Some areas are mostly Portales soil, and some are most Gomez soil. The Portales soil is sloping or undulatin The Gomez soil is in slightly concave areas. Included i mapping are small areas of Amarillo, Lea, and Arvan fine sandy loams.

The Portales soil is similar to Portales loam, 0 to percent slopes, except for surface layer texture and slop The Gomez soil is similar to Gomez loamy fine sand (s Gomez Series), but its surface layer differs in textu and is about 6 inches thick.

Runoff is slow. Soil blowing is a severe hazard.

The soils in this mapping unit are used as range, wil life habitat, and recreational areas. Portales soil: Dr land capability unit IVe-3; Sandy range site; wildli habitat group B. Gomez soil: Dryland capability un IVe-6; Sandy range site; wildlife habitat group B.

Portales-Stegall loams (0 to 3 percent slopes) (PS).— This complex is in the northern part of Lea County. It about 40 percent Portales loam, 40 percent Stegall loa and 20 percent inclusions of Lea and Mansker soil These soils are on low, concave and convex slopes on th Southern High Plains. The Portales soil is similar Portales loam, 0 to 1 percent slopes. The Stegall soil similar to Stegall loam (see Stegall Series). In man places the smoother and lower portions of the swales a occupied by the Stegall soil. In some areas, the lo mounds or long ridges along the swales are occupied b Portales soil.

These soils are used as range, wildlife habitat, an recreational areas. They are not cultivated. Dryland cap bility unit IVe-2; Loamy range site; wildlife habit group E.

Potter Series

The Potter series consists of well-drained gravelly fi sandy loams that are underlain by platy caliche at depth of 4 to 10 inches. These rolling and hilly soils a on escarpments that separate the Southern High Plai Resource Area from the Southern Desertic Basins, Plai and Mountains Resource Area. They formed in a mixtu of wind and water deposits. Slopes are 5 to 15 perce The vegetation consists of mid grasses, forbs, and shru The average annual precipitation is 12 to 15 inches, t average annual air temperature is 60° to 62° F., and t frost-free season is 190 to 205 days. Elevations range fro 3,700 to 4,000 feet. Mansker, Mobeetie, and Kimbrou soils are closely associated with the Potter soils.

Estimated engineering properties

Table 6 gives a brief description of the soils of Lea County and estimates of some properties that affect engineering work. Information taken from the soil survey, knowledge of the individual soils of the county, and the test data shown in table 5 were used as a basis for describing the soils and estimating their properties.

The names of the soil series and the map symbols are listed alphabetically in table 6. Depth to indurated caliche is shown. The soils in Lea County are all deep to ground water.

In the column that shows depth from the surface, the layers indicated are fairly typical of all the layers in all the soils of any one series. Estimates of some properties are not given for the upper layer, because the material from this layer may be salvaged and used later as topsoil. Also the upper layer may be incorporated with the underlying layers in many engineering structures.

The three columns in table 6 under the heading "Classification" indicate soil texture as it is classified by soil scientists and by engineers.

The estimated percentage of soil material passing sieves No. 4, No. 10, and No. 200 reflects the normal range for a given series. Most soils will fall within the range given. However, the grain size of any soil varies considerably. It should not be assumed, therefore, that all samples of a specific soil will fall within the range shown, nor that the engineering classification will invariably be as shown.

The rates of permeability given in table 6 are based on the movement of water through the soil in its undisturbed state. The rates depend largely on the texture and structure of the soil.

Available water capacity is the capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil.

Reaction refers to the degree of acidity or alkalinity of a soil, expressed as a pH value. The pH values and relative terms used to describe soil reaction are explained in the Glossary.

Salinity affects not only the suitability of a soil for crops, but also its stability when used as a construction material and its corrosiveness to other materials. Estimates of salinity are based on estimates of electrical conductivity of saturated soil extract.

Shrink-swell potential is an indication of the volume change to be expected when the moisture content of soil material changes. In general, soils that have a high shrink-swell potential present hazards to the maintenance of engineering structures. Clean, structureless sands and gravels and most other nonplastic or slightly plastic soils have a low shrink-swell potential.

Corrosion potential refers to the potential danger to uncoated metal or concrete structures from chemical action that dissolves or weakens the structural material. Steel and concrete pipes, for example, may corrode if they are buried in soil, and a given material corrodes more rapidly in some kinds of soil than in others. Pipes that are in more than one kind of soil or that pass through more than one soil horizon are more likely to be damaged by corrosion than pipes that are buried entirely in one kind of soil or that are in only one soil horizon. The corrosivity of soil for uncoated steel pipe is commonly determined by electrical resistivity to flow of current, total acidity, soil drainage, and soil texture. Three corrosivity classes, *low*, *moderate*, and *high*, are referred to in making the interpretations.

Low refers to well-drained and somewhat excessively to excessively drained, coarse-textured to medium-textured soils having electrical resistivity in ohms per centimeter at field capacity of more than 5,000; or total acidity of less than 8 percent; or conductivity saturation extract of less than 1 millimho per centimeter at 25 degrees centigrade.

Moderate refers to well-drained, moderately fine textured and medium-textured soils having electrical resistivity in ohms per centimeter at field capacity of 2,000 to 5,000; or total acidity of 8 to 12 percent; or conductivity saturation extract of 1 to 4 millimhos per centimeter at 25 degrees centigrade.

High refers to well drained and moderately well drained soils that have fine textured, moderately fine textured, and medium-textured control sections, or to poorly drained soils, all having electrical resistivity in ohms per centimeter at field capacity of less than 2,000; or total acidity of more than 12 percent; or conductivity saturation extract of greater than 4 millimhos per centimeter at 25 degrees centigrade.

Engineering interpretations

Estimates of the suitability of soils for specified engineering uses are given in table 7. Features or characteristics that are likely to affect design and use in construction were considered, and evaluations were based on data shown in table 5, on estimates of soil properties given in table 6, and on field performance. Following are explanations of the items in table 7.

The suitability of soils as a source of topsoil is rated as *good*, *fair*, or *poor*. Ratings are based mainly on characteristics and thickness of the surface layer. They are intended for use by nurserymen, landscape architects, highway engineers, and others concerned with establishing vegetation on slopes, road shoulders, waterways, lawns, and golf courses.

Criteria used in determining the ratings are soil properties, such as texture, reaction, natural fertility, organic-matter content, slope, and depth to indurated caliche. A rating of *good* refers to nearly level soils that have fine sandy loam to loam texture, high natural fertility, and a pH of 6.3 to 7.8 and are more than 1 percent organic matter and more than 40 inches thick over indurated caliche. A rating of *fair* refers to sandy loams or silty clay loams that have moderate fertility, slopes of 5 to 25 percent, and a pH of 7.8 to 8.4 and are 0.5 to 1 percent organic matter and 20 to 40 inches thick over indurated caliche. A rating of *poor* refers to shallow, steep loamy fine sands and coarser textured and gravelly soils that are low in fertility and organic-matter content.

Suitability of a soil as a source of sand is based on the likelihood that specific areas of the soil contain sand deposits. The ratings do not indicate the quality or the size of the deposit.

TABLE 6.—*Estimated engi*

[An asterisk in the first column indicates that at least one mapping unit in this series is made up of two or more kinds of soil. T
for referring to other series that appea

Soil series and map symbols	Depth to bedrock or indurated caliche	Depth from surface	Classification		
			Dominant USDA texture	Unified	AA
	Ft.	*In.*			
Active dune land: Aa	>5	0–60	Fine sand	SP	A–3
*Amarillo: Ad, Ae, Af, Ag, Ah, Ak, AB, AL, AS, AU. For Arvana part of AB, AL, and AS, see Arvana series; for Gomez part of Ak and AU, see Gomez series.	>5	0–36 36–60	Sandy clay loam Chalky loam	SM or SC SC	A–4 c A–4
*Arch: Am, AV For Drake part of AV, see Drake series.	>5	0–16 16–60	Loam Soft caliche (clay loam to silty clay loam).	ML or CL CL	A–4 c A–6
*Arvana: An, Ao, Ap, Ar, At, AW For Lea part of AW, see Lea series.	1½–3	0–28 28	Sandy clay loam Indurated caliche.	SC	A–6
Badland: BD. Variable: no estimates of properties.					
*Berino: BE, BF, BH For Cacique part of BE, BF, and BH, see Cacique series.	>5	0–48 48–60	Sandy clay loam Soft caliche (sandy clay loam)	SC SC	A–6 A–6
*Brownfield: Bp, BN, Br, BO, BS For Patricia part of Br, Bp, and BN, see Patricia series; for Springer part of BO and BS, see Springer series.	>5	0–22 22–63	Fine sand Sandy clay loam	SM SM or SC	A–1 o A–4 o
Cacique Mapped only with Berino soils.	1½–3	0–12 12–28 28	Loamy fine sand Sandy clay loam Indurated caliche.	SM SC	A–2 o A–6
Cottonwood Mapped only with Reeves soils.	(2)	0–8 8	Loam Gypsum.	ML	A–4
Drake: Dr	>5	0–30 30–60	Fine sandy loam Sandy clay loam	ML SC	A–4 A–6
Drake, low rainfall variant Mapped only with Jal soils.	>5	0–12 12–60	Loamy fine sand Sandy clay loam	SM SC	A–2 A–6
Gomez: GF, Go, GM, Gs	>5	0–15 15–22 22–60	Loamy fine sand Fine sandy loam Soft caliche (fine sandy loam)	SM SM SM	A–2 A–4 A–4
*Jal: JA For Drake part of JA, see Drake, low rainfall variant.	>5	0–12 12–60	Sandy loam Soft caliche (loam texture)	SM ML	A–2 o A–4
*Kermit: KD, KE, KM For Palomas part of KD, see Palomas series; for Dune land part of KM, see Active dune land; for Wink part of KE, see Wink series.	>5	0–60	Fine sand	SP–SM or SM	A–2 o
*Kimbrough: Kb, KN, Kc, Kg, KO, Kh, KU, Ks, KX. For Sharvana part of Ks and KX, see Sharvana series; for Lea part of Kh and KU, see Lea series.	½–1½	0–6 6	Gravelly loam Indurated caliche.	SM, SC, or ML	A–4
*Largo: LP For Pajarito part of LP, see Parjarito series.	2 to 5	0–30 30	Loam, silty clay loam, and clay loam. Shale.	ML or CL	A–4 o

See footnotes at end of table.

properties of the soils

in such mapping units may have different properties and limitations, and for this reason it is necessary to follow carefully the instructions first column of table. Symbol > means more than]

Percentage passing sieve—			Permeability	Available water capacity	Reaction	Salinity	Shrink-swell potential	Corrosivity of uncoated steel [1]
No. 4	No. 10	No. 200						
			In./hr.	*In./in. of soil*	*pH*	*Mmhos./cm.*		
100	100	0–5	>20	0. 04–0. 06	6. 6–7. 8	0–1	Low	Low.
100	100	40–50	0. 63–2. 0	0. 14–0. 16	6. 6–7. 3	0–1	Moderate	Moderate.
95–100	90–100	40–50	0. 63–2. 0		7. 9–8. 4	0–1	Low	Low.
100	100	78–80	0. 63–2. 0	0. 16–0. 18	7. 9–8. 4	0–2	Moderate	Moderate.
100	100	85–95	0. 63–2. 0		8. 5–9. 0	0–4	Moderate	High.
100	100	35–50	0. 63–2. 0	0. 14–0. 16	6. 6–7. 3	0–1	Moderate	Moderate.
100	100	35–45	0. 63–2. 0	0. 14–0. 16	6. 6–7. 8	0–2	Moderate	Moderate.
100	100	35–50	0. 63–2. 0		7. 9–8. 4	0–2	Moderate	Moderate.
100	100	20–30	6. 3–20. 0	0. 06–0. 08	6. 6–7. 3	0–1	Low	Low.
100	100	40–50	0. 63–2. 0	0. 14–0. 16	6. 6–7. 8	0–1	Moderate	Moderate.
100	100	25–50	2. 0–6. 3	0. 09–0. 15	6. 6–7. 3	0–1	Low	Low.
100	100	35–50	0. 63–2. 0	0. 14–0. 16	6. 6–7. 3	0–1	Moderate	Moderate.
100	100	60–80	0. 63–2. 0	0. 16–0. 18	8. 5–9. 0	8–15	Low	High.
100	100	50–60	0. 63–2. 0	0. 13–0. 15	7. 4–7. 8	0–4	Low	Moderate.
100	100	35–45	0. 63–2. 0	0. 14–0. 16	7. 9–8. 4	0–4	Moderate	Moderate.
100	100	20–35	6. 3–20. 0	0. 08–0. 10	7. 4–7. 8	0–4	Low	Moderate.
100	100	35–45	0. 63–2. 0	0. 14–0. 16	7. 9–8. 4	0–4	Moderate	Moderate.
100	100	15–30	6. 3–20. 0	0. 05–0. 09	6. 6–7. 8	0–1	Low	Low.
100	100	35–50	2. 0–6. 3	0. 13–0. 15	7. 4–7. 8	0–1	Low	Low.
100	100	35–50	2. 0–6. 3		7. 9–8. 4	0–2	Low	Moderate.
100	100	30–40	2. 0–6. 3	0. 11–0. 13	7. 9–8. 4	0–2	Low	Moderate.
100	100	50–65	0. 63–2. 0		8. 5–9. 0	0–4	Low	Moderate.
100	100	5–15	>20. 0	0. 04–0. 06	6. 6–7. 3	0–1	Low	Low.
85–95	75–90	40–60	0. 63–2. 0	0. 12–0. 18	7. 4–7. 8	0–2	Low	Low to moderate.
100	100	65–85	0. 2–0. 63	0. 17–0. 19	7. 4–8. 4	0–1	Moderate	Moderate.

TABLE 6.—*Estimated engi*

Soil series and map symbols	Depth to bedrock or indurated caliche	Depth from surface	Classification		
			Dominant USDA texture	Unified	AA
	Ft.	*In.*			
Lea: La, Le	1½–3½	0–26	Loam	ML or CL	A–4
		26	Indurated caliche.		
*Maljamar: MF	3½–>5	0–24	Fine sand	SM	A–2
		24–50	Sandy clay loam	SC	A–6
For Palomas part of MF, see Palomas series.		50	Indurated caliche.		
Mansker: Ma, MK, Me	>5	0–10	Loam	ML	A–4
		10–19	Clay loam	CL	A–6
		19–60	Soft caliche (light clay loam texture).	CL	A–6
*Midessa: MM, MN	>5	0–22	Clay loam	CL	A–6
		22–60	Soft caliche (clay loam texture)	CL	A–6
For Wink part of MN, see Wink series.					
Mixed alluvial land: MU					
Variable; no estimates of properties.					
*Mobeetie: MW	>5	0–60	Fine sandy loam	SM	A–4
For Potter part of MW, see Potter series.					
Pajarito	>5	0–16	Loamy fine sand	SM	A–2
		16–60	Fine sandy loam	SM	A–4
Mapped only with Largo soils.					
Palomas	>5	0–16	Fine sand	SM	A–2
		16–60	Fine sandy loam and sandy clay loam.	SM or SC	A–4
Mapped only with Kermit and Maljamar soils.		60–66	Soft caliche (sandy loam)	SM	A–2 or
Patricia	>5	0–16	Fine sand	SM	A–1 or
		16–70	Sandy clay loam	SM or SC	A–4 or
Mapped only with Brownfield soils.					
Playas: Pb					
Variable; no estimates of properties.					
*Portales: Pe, Pf, Ph, PC, Po, PG, PS	>5	0–26	Loam and clay loam	CL	A–6
		26–60	Soft caliche (loam texture)	CL	A–6
For Stegall part of PS, see Stegall series; for Gomez part of PG, see Gomez series.					
Potter	½–1	0–4	Gravelly fine sandy loam	SM	A–2
		4	Fragmental platy caliche.		
Mapped only with Mobeetie soils.					
*Pyote: PT, PU, PY	>5	0–30	Fine sand or loamy fine sand	SP–SM or SM	A–2 or
		30–60	Fine sandy loam	SM	A–4
For Maljamar part of PU, see Maljamar series; for Dune land part of PY, see Active dune land.					
*Reeves: RE, RT	(3)	0–12	Loam	ML	A–4
		12–16	Light clay loam	CL	A–6
For Cottonwood part of RT, see Cottonwood series.		16–60	Gypsum and chalky loam.		
Sharvana: Sf, SA, Sh, SD	1–2	0–16	Sandy clay loam	SC	A–6
		16	Indurated caliche.		
*Simona: Sm, SE, Sn, SR	1–1½	0–16	Fine sandy loam	SM	A–2 or
		16	Indurated caliche.		
For Upton part of SR, see Upton series.					
Slaughter: So	1–2	0–15	Heavy clay loam and clay	CL	A–6
		15	Indurated caliche.		
Springer	>5	0–14	Loamy fine sand	SM	A–2
		14–60	Fine sandy loam	SM	A–4
Mapped only with Brownfield soils.		60	Soft caliche.		
*Stegall: St, Su, SS	1½–3	0–28	Clay loam	CL	A–6
		28	Indurated caliche.		
For Slaughter part of SS, see Slaughter series.					

See footnotes at end of table.

properties of the soil—Continued

Percentage passing sieve—			Permeability	Available water capacity	Reaction	Salinity	Shrink-swell potential	Corrosivity of uncoated steel [1]
No. 4	No. 10	No. 200						
			In./hr.	*In./in. of soil*	*pH*	*Mmhos./cm.*		
100	100	60–75	0. 63–2. 0	0. 16–0. 18	6. 6–8. 4	0–2	Moderate	Moderate.
100	100	15–25	6. 3–20. 0	0. 05–0. 07	6. 6–7. 3	0–1	Low	Low.
100	100	35–45	0. 63–2. 0	0. 14–0. 16	6. 6–7. 3	0–1	Moderate	Moderate.
100	100	60–75	0. 63–2. 0	0. 16–0. 18	7. 9–8. 4	0–2	Moderate	Moderate.
100	100	70–80	0. 63–2. 0	0. 19–0. 21	7. 9–8. 4	0–2	Moderate	Moderate.
100	100	70–80	0. 63–2. 0		7. 9–8. 4	0–2	Moderate	Moderate.
100	100	70–80	0. 63–2. 0	0. 19–0. 21	7. 4–8. 4	0–2	Moderate	Moderate.
100	100	70–80	0. 63–2. 0		7. 9–8. 4	0–2	Moderate	Moderate.
100	100	40–50	2. 0–6. 3	0. 13–0. 15	7. 9–8. 4	0–1	Low	Low.
100	100	20–30	6. 3–20. 0	0. 09–0. 11	7. 4–7. 8	0–1	Low	Low.
100	100	35–50	2. 0–6. 3	0. 13–0. 15	8. 5–9. 0	0–1	Low	Low.
100	100	20–30	6. 3–20. 0	0. 05–0. 07	6. 6–7. 3	0–1	Low	Low.
100	100	35–50	0. 63–2. 0	0. 14–0. 16	6. 6–7. 8	0–1	Moderate	Moderate.
100	100	30–40	0. 63–2. 0		7. 4–7. 8	0–2	Low	Moderate.
100	100	20–30	6. 3–20. 0	0. 06–0. 08	6. 6–7. 3	0–1	Low	Low.
100	100	40–50	0. 63–2. 0	0. 14–0. 16	5. 6–8. 4	0–1	Moderate	Moderate.
100	100	65–75	0. 63–2. 0	0. 17–0. 19	7. 4–8. 4	0–2	Moderate	Moderate.
100	100	65–75	0. 63–2. 0		7. 9–8. 4	0–2	Moderate	Moderate.
85–95	70–85	20–30	0. 63–2. 0	0. 10–0. 12	7. 4–7. 8	0–2	Low	Moderate.
100	100	5–30	6. 3–20. 0	0. 06–0. 08	6. 6–7. 3	0–1	Low	Low.
100	100	40–50	2. 0–6. 3	0. 13–0. 15	6. 6–7. 3	0–1	Low	Low.
100	100	60–75	0. 63–2. 0	0. 19–0. 21	7. 4–7. 8	4–8	Moderate	High.
100	100	70–80	0. 63–2. 0	0. 13–0. 15	7. 9–8. 4	8–15	Moderate	High.
100	100	35–50	0. 63–2. 0	0. 14–0. 16	6. 6–7. 3	0–1	Moderate	Moderate.
80–100	75–100	20–50	2. 0–6. 3	0. 09–0. 15	7. 9–8. 4	0–1	Low	Low.
100	100	75–95	0. 06–0. 2	0. 16–0. 18	6. 6–7. 3	0–1	High	High.
100	100	20–30	6. 3–20. 0	0. 05–0. 09	6. 6–7. 8	0–1	Low	Low.
100	100	40–50	2. 0–6. 3	0. 13–0. 15	6. 6–7. 8	0–1	Low	Low.
100	100	70–80	0. 06–0. 2	0. 17–0. 19	6. 6–7. 8	0–4	High	High.

TABLE 7.—*Engineeri*

Soil series and map symbols	Suitability as a source of—			Degree of limitation for—	
	Topsoil	Sand	Road fill	Filter fields	Sewage lagoons
Cacique Mapped only with Berino soils.	Fair to poor: texture	Unsuitable: mainly fine-grained material.	Good to poor (A-2 and A-6); moderate shrink-swell potential.	Severe: indurated caliche at a depth of 1½ to 3 feet.	Severe: depth to indurated caliche is 1½ to 3 feet.
Cottonwood Mapped only with Reeves soils.	Poor: low fertility; reaction.	Unsuitable: fine-grained material.	Fair (A-4): low shear strength; very shallow.	Severe: gypsum within a depth of 1 foot; danger of pollution.	Severe: gypsum within a depth of 1 foot.
Drake: Dr	Poor: low fertility; texture.	Poor: sandy clay loam below a depth of 30 inches.	Fair to poor (A-4 and A-6).	Slight to moderate: moderate permeability.	Moderate: moderate permeability; slopes mainly 2 to 5 percent.
Drake, low rainfall variant Mapped only with Jal soils.	Poor: low fertility; texture.	Unsuitable: mainly fine-grained material.	Fair to poor (A-2 and A-6).	Slight to moderate: moderate permeability.	Moderate: moderate permeability.
Gomez: GF, Go, GM, Gs	Poor: low fertility; texture.	Poor: fine sandy loam below a depth of 15 inches.	Good to fair (A-2 and A-4) if soil binder is added.	Slight	Severe: moderately rapid permeability.
*Jal: JA For Drake part of JA, see Drake, low rainfall variant.	Poor: low fertility; high lime content.	Unsuitable: mainly fine-grained material.	Fair (mainly A-4)	Slight to moderate: moderate permeability.	Moderate: moderate permeability.
*Kermit: KD, KE, KM For Palomas part of KD, see Palomas series. For Dune land part of KM, see Active dune land. For Wink part of KE, see Wink series.	Poor: low fertility; texture.	Good	Good (A-2 and A-3) if soil binder is added.	Slight to moderate: in places slopes exceed 5 percent; pollution of ground water possible.	Severe: very rapid permeability; slopes mainly 0 to 12 percent.
*Kimbrough: Kb, KN, Kc, Kg, KO, Kh, KU, Ks, KX. For Sharvana part of units Ks and KX, see Sharvana series. For Lea part of Kh and KU, see Lea series.	Poor: gravelly; indurated caliche at a depth of ½ foot to 1½ feet.	Unsuitable: indurated caliche at a depth of ½ foot to 1½ feet.	Fair (A-4): depth to indurated caliche is ½ foot to 1½ feet.	Severe: indurated caliche at a depth of ½ foot to 1½ feet.	Severe: indurated caliche at a depth of ½ foot to 1½ feet.
*Largo: LP For Pajarito part of LP, see Pajarito series.	Fair: low fertility	Unsuitable: fine-grained material.	Fair to poor (A-4 and A-6): moderate shrink-swell potential.	Severe: moderately slow permeability.	Moderate: subject to flooding.
Lea: La, Le	Good: moderate fertility.	Unsuitable: mainly fine-grained material.	Fair (A-4): moderate shrink-swell potential.	Severe: indurated caliche at a depth of 1½ to 3½ feet.	Severe: indurated caliche at a depth o 1½ to 3½ feet.
*Maljamar: MF For Palomas part of MF, see Palomas series.	Poor: low fertility; texture.	Poor: sandy clay loam below a depth of 2 feet.	Good to poor (A-2 and A-6).	Slight to moderate: moderate permeability.	Moderate: moderate permeability.
Mansker: Ma, MK, Me	Fair: moderate fertility.	Unsuitable: fine-grained material.	Fair to poor (A-4 and A-6).	Slight to moderate: moderate permeability.	Moderate: moderate permeability.
*Midessa: MM, MN For Wink part of MN, see Wink series.	Fair: moderate fertility.	Unsuitable: mainly fine-grained material.	Poor (A-6)	Slight to moderate: moderate permeability.	Moderate: moderate permeability.

Interpretations—Continued

Highway location	Dikes and levees	Farm ponds		Irrigation	Leveling and benching	Foundations for low buildings	Pipelines
		Reservoir area	Embankment				
		Soil features affecting—					
Indurated caliche at a depth of 1½ to 3 feet.	Moderate shrink-swell potential.	Indurated caliche at a depth of 1½ to 3 feet; moderate seepage.	Limited fill material.	Moderate to severe erosion hazard; indurated caliche at a depth of 1½ to 3 feet.	Indurated caliche at a depth of 1½ to 3 feet.	Moderate shrink-swell potential.	Indurated caliche at a depth of 1½ to 3 feet.
Gypsiferous material within a depth of 1 foot.	Gypsiferous material.	Soluble gypsum	Soluble gypsum	Low water holding capacity.	Gypsum within a depth of 1 foot.	Soluble gypsum	Gypsum; highly corrosive.
Severe erosion hazard.	Poor stability; piping hazard.	Moderate seepage; piping hazard.	Severe erosion hazard; piping hazard.	Severe erosion hazard; low productivity; 0 to 5 percent slopes.	Severe erosion hazard; cuts limited by high lime content.	Low shear strength; moderate shrink-swell potential below a depth of 30 inches.	Moderately corrosive.
Severe erosion hazard.	Poor stability; piping hazard.	Moderate seepage; piping hazard.	Severe erosion hazard; piping hazard.	Severe erosion hazard; low productivity.	Severe erosion hazard.	Low shear strength; moderate shrink-swell potential below a depth of 12 inches.	Moderately corrosive.
Soft caliche at a depth of 1½ to 3½ feet; severe erosion hazard.	Soft caliche at a depth of 1½ to 3½ feet; severe erosion hazard.	Soft caliche at a depth of 1½ to 3½ feet; high seepage.	High seepage; piping hazard; severe erosion hazard.	Rapid water intake; severe erosion hazard.	Unstable; cuts limited by soft caliche at a depth of 1½ to 3½ feet.	Low shear strength; low shrink-swell potential.	Moderate ditchbank sloughing.
Soft caliche at a depth of 12 inches; severe erosion hazard.	Piping hazard; severe erosion hazard.	Moderate permeability; high seepage; high lime content.	Piping hazard; poor compaction.	Severe erosion hazard; rooting depth 20 to 30 inches.	Severe erosion hazard.	Low shrink-swell potential.	Moderately corrosive; soft caliche at a depth of 12 inches.
Loose sand hinders hauling; very severe erosion hazard.	Very severe erosion hazard.	Very rapid permeability.	Very severe erosion hazard.	Very severe erosion hazard.	Very severe erosion hazard.	Low shrink-swell potential.	Ditchbank sloughing.
Indurated caliche at a depth of ½ foot to 1½ feet.	Indurated caliche at a depth of ½ foot to 1½ feet.	Indurated caliche at a depth of ½ foot to 1½ feet.	Indurated caliche at a depth of ½ foot to 1½ feet.	Indurated caliche at a depth of ½ foot to 1½ feet.	Indurated caliche at a depth of ½ foot to 1½ feet.	Indurated caliche at a depth of ½ foot to 1½ feet.	Indurated caliche at a depth of ½ foot to 1½ feet.
Periodic flooding; erosion hazard.	Unstable: subject to cracking.	Moderate shrink-swell potential; moderately slow permeability.	Fair stability; piping hazard.	Low water intake; erosion hazard.	Subject to flooding	Subject to flooding; moderate shrink-swell potential.	Subject to flooding.
Indurated caliche at a depth of 1½ to 3½ feet.	Indurated caliche at a depth of 1½ to 3½ feet.	Indurated caliche at a depth of 1½ to 3½ feet.	Indurated caliche at a depth of 1½ to 3½ feet.	Indurated caliche at a depth of 1½ to 3½ feet.	Cuts limited by indurated caliche at a depth of 1½ to 3½ feet.	Moderate shrink-swell potential.	Indurated caliche at a depth of 1½ to 3½ feet.
Sand hinders hauling; severe erosion hazard.	Thick fine sand surface layer.	Moderately permeable below a depth of 2 feet; moderate seepage.	Slight cracking; severe erosion hazard.	Severe erosion hazard.	Severe erosion hazard.	Moderate shrink-swell potential below a depth of 2 feet.	Surface sands; slough or cave-in hazard.
Soft caliche at a depth of 10 to 20 inches.	Moderate shrink-swell potential.	Seepage; soft caliche at a depth of 10 to 20 inches.	High seepage potential; erosion hazard.	Shallow over caliche; low water-holding capacity.	Cuts limited by soft caliche at a depth of 10 to 20 inches.	Moderate shrink-swell potential.	High lime content; corrosive.
Moderate shrink-swell potential.	Moderate shrink-swell potential.	Soft caliche at a depth of 2 to 3 feet; requires compaction.	Poor stability; piping hazard.	Soft caliche at a depth of 2 to 3 feet.	Cuts limited by soft caliche at a depth of 2 to 3 feet.	Moderate shrink-swell potential.	High lime content; corrosive.

TABLE 7.—*Engi*

Soil series and map symbols	Suitability as a source of—			Degree of limitation for—	
	Topsoil	Sand	Road fill	Filter fields	Sewage lag
Mixed alluvial land: MU. Variable; no interpretations.					
*Mobeetie: MW. For Potter part of MW, see Potter series.	Fair: moderate fertility.	Poor: fine sandy loam material.	Fair (A-4)	Slight to moderate: slopes are 1 to 10 percent.	Severe: moder rapid permeab slopes are 1 to cent.
Pajarito. Mapped only with Largo soils.	Poor: low fertility; texture.	Fair to poor: loamy fine sand and fine sandy loam material.	Good to fair (A-2 and A-4).	Slight	Severe: modera rapid permeab
Palomas. Mapped only with Kermit and Maljamar soils.	Poor: low fertility; texture.	Poor: sandy clay loam below a depth of 16 inches.	Good to fair (A-2 and A-4).	Slight to moderate: moderate permeability.	Moderate: mod permeability.
Patricia. Mapped only with Brownfield soils.	Poor: low fertility; texture.	Poor: sandy clay loam below a depth of 16 inches.	Good (A-2) in upper 16 inches; fair to poor (A-4 or A-6) below a depth of 16 inches; moderate shrink-swell potential.	Slight to moderate: moderate permeability.	Moderate: mod permeability.
Playas: Pb. Variable; no interpretations.					
*Portales: Pe, Pf, Ph, PC, PS, PG, Po. For Stegall part of PS, see Stegall series. For Gomez part of PG, see Gomez series.	Fair: high lime content.	Unsuitable: mainly fine-grained material.	Poor (A-6): moderate shrink-swell potential.	Slight to moderate: moderate permeability.	Moderate: mod permeability.
Potter. Mapped only with Mobeetie soils.	Poor: low fertility; gravelly.	Unsuitable: limited material.	Good	Severe: fragmented platy caliche at a depth of 6 to 12 inches.	Severe: platy cal at a depth of 6 t inches.
*Pyote: PT, PU, PY. For Maljamar part of PU, see Maljamar series. For Dune land part of PY, see Active dune land.	Poor: low fertility; texture.	Fair to poor: fine sand and fine sandy loam.	Good (A-2) if soil binder is added; fair (A-4) below a depth of 30 inches.	Slight	Severe: moderat rapid permeabil
*Reeves: RE, RT. For Cottonwood part of RT, see Cottonwood series.	Poor: low fertility; saline.	Unsuitable: fine-grained material.	Fair to poor (A-4 and A-6): unstable.	Severe: gypsum at a depth of 1½ to 2½ feet; danger of pollution.	Severe: moderat permeability; gy at a depth of 1½ 2½ feet.
Sharvana: Sf, SA, Sh, SD	Poor: 1 to 2 feet to indurated caliche.	Unsuitable: limited material; some fine-grained material.	Fair to poor (A-4 and A-6): moderate shrink-swell potential in subsoil; shallow.	Severe: indurated caliche at a depth of 1 to 2 feet.	Severe: indurate caliche at a dep 1 to 2 feet.
*Simona: Sm, SE, SR, Sn. For Upton part of SR, see Upton series.	Poor: fertility is low; shallow over indurated caliche.	Poor: limited fine sandy loam material.	Good to fair (A-2 or A-4) to a depth of 20 inches.	Severe: indurated caliche at a depth of 1 to 1½ feet.	Severe: shallow indurated calich

interpretations—Continued

Highway location	Dikes and levees	Farm ponds		Irrigation	Leveling and benching	Foundations for low buildings	Pipelines
		Reservoir area	Embankment				
		Soil features affecting—					
Unstable material; slopes are 1 to 10 percent.	Piping hazard; slopes are 1 to 10 percent.	Moderately rapid permeability.	Moderate erosion hazard; permeability.	Moderately rapid permeability; slopes are 1 to 10 percent.	Moderate erosion hazard; slopes are 1 to 10 percent.	Unstable; low shrink-swell potential.	Slopes are 1 to 10 percent.
Loose, drifting sands; erosion hazard.	Unstable; requires soil binders.	Moderately rapid permeability.	Fair stability; moderate permeability when compacted.	Severe hazard of soil blowing.	Severe hazard of soil blowing.	Low shrink-swell potential.	Ditchbank sloughing.
Drifting sand; sand binders hauling; erosion hazard.	Moderate shrink-swell potential in subsoil.	Moderate seepage	Slight cracking; erosion hazard.	Severe hazard of soil blowing.	Severe hazard of soil blowing.	Moderate shrink-swell potential below a depth of 16 inches.	Ditchbank sloughing.
Drifting sand; sand binders hauling; severe erosion hazard.	Moderate shrink-swell potential in subsoil.	Moderate seepage	Slight cracking; severe erosion hazard.	Severe erosion hazard; rapid water intake.	Severe erosion hazard.	Moderate shrink-swell potential below a depth of 16 inches.	Severe erosion hazard; sloughing.
Moderate (A-6) shrink-swell potential.	Moderate shrink-swell potential.	Chalky loam at a depth of 20 to 36 inches; moderate seepage.	Unstable; difficult to compact.	High water-holding capacity; high lime content.	Cuts limited by moderate depth to chalky loam subsoil.	Moderate shrink-swell potential.	High lime content; moderately corrosive.
Platy caliche at a depth of 6 to 12 inches.	Platy caliche at a depth of 6 to 12 inches.	Platy caliche at a depth of 6 to 12 inches; slopes are 5 to 15 percent.	Platy caliche at a depth of 6 to 12 inches.	Platy caliche at a depth of 6 to 12 inches; slopes are 5 to 15 percent.	Platy caliche at a depth of 6 to 12 inches; slopes are 5 to 15 percent	Platy caliche at a depth of 6 to 12 inches; low shrink-swell potential	Platy caliche at a depth of 6 to 12 inches.
Severe erosion hazard; loose, drifting sands.	Unstable; soil binders needed.	Moderately rapid permeability.	Fair stability; moderate permeability when compacted.	Severe hazard of soil blowing; moderately rapid permeability.	Severe hazard of soil blowing.	Low shrink-swell potential.	Severe erosion hazard; ditchbank sloughing.
Gypsiferous materials at a depth of 1½ to 2½ feet; moderate shrink-swell potential.	Gypsum at a depth of 1½ to 2½ feet; unstable.	Gypsum at a depth of 1½ to 2½ feet.	Gypsum at a depth of 1½ to 2½ feet.	Low productivity; gypsum at a depth of 1½ to 2½ feet.	Cuts limited by gypsum at a depth of 1½ to 2½ feet.	Moderate shrink-swell potential; gypsum at a depth of 1½ to 2½ feet.	Corrosive; gypsum at a depth of 1½ to 2½ feet.
Indurated caliche at a depth of 1 to 2 feet; drifting sand.	Indurated caliche at a depth of 1 to 2 feet.	Indurated caliche at a depth of 1 to 2 feet.	Indurated caliche at a depth of 1 to 2 feet.	Indurated caliche at a depth of 1 to 2 feet; low productivity; erosion hazard.	Cuts limited by indurated caliche at a depth of 1 to 2 feet.	Moderate shrink-swell potential; erosion hazard.	Indurated caliche at a depth of 1 to 2 feet.
Indurated caliche at a depth of 1 to 1½ feet; erosion hazard.	Indurated caliche at a depth of 1 to 1½ feet.	Indurated caliche at a depth of 1 to 1½ feet.	Indurated caliche at a depth of 1 to 1½ feet.	Shallow; low water-holding capacity; erosion hazard.	Cuts limited by indurated caliche.	Indurated caliche at a depth of 1 to 1½ feet; erosion hazard.	Shallow over indurated caliche.

Rodents and other burrowing animals have played an important part in the development of some soils. Their work has often mixed surface and subsoil materials, altering the color and the texture and changing the soil structure. Sandy soils, for example, Brownfield soils, are easily burrowed into by rodents and larger animals. Disturbance by animal life in places alters the reaction of a soil layer.

The influence of man and domestic animals on soil formation is very noticeable. The open range was fenced, and livestock population increased rapidly when settlers came into Lea County. Bad management of rangeland and of homestead acreages resulted in severe erosion. The severity of soil blowing can be seen in the sandy areas of Lea County. The eroded condition of these soils retards soil formation and affects their future use. Soil erosion in any form reduces the organic-matter content and alters the soil depth. Irrigation has influenced the character of many of the soils in Lea County. Large areas have been plowed and leveled where irrigation water is available. Poor water management and poorly timed tillage have caused many soils to compact and seal over, thus reducing water intake and the amount of available water for plant growth.

Relief

Relief influences soil formation through its effect on drainage and runoff. In Lea County the relief, or lay of the land, ranges from level in playa lakes to hilly on Potter soils. The effects of climate and vegetation are modified by relief through exposure to sun and wind, the rate of erosion, and the kind and amount of vegetation.

If other factors of soil formation are equal, the formation of a soil profile depends on the amount of moisture in the soil. Steep soils have greater runoff and absorb less moisture, and thus have a more weakly developed profile than level or depressional soils. The shallow Kimbrough soils take in a limited amount of water because they are gently sloping and have medium runoff. In contrast, the shallow Potter soils, which have thinner, indistinct horizons, lack soil moisture because they have stronger slopes and more rapid runoff. The soils in flat swales and playa lakes, such as the Stegall and Lea soils, are good examples of the effect of relief in the development of deep soils and distinct horizons.

Natural drainage is influenced by relief and parent material. In well-drained soils, such as Amarillo soils, water is removed readily, but not rapidly. In excessively drained soils, water is removed so rapidly that crops may wither and die from lack of water. Most soils in Lea County are well drained. The Kermit, Tonuco, and Tivoli soils are excessively drained and droughty.

Relief has been greatly influenced by the loss of vegetative cover in the sandy areas of Lea County. Soil blowing has accelerated the movement and shifting of coarse-textured soils into dunes and left barren, exposed finer textured soil materials at the surface. Runoff in such areas is variable and soil drainage complex.

Parent material

Most of the soils in the High Plains of Lea County formed in windblown and water-laid material that was deposited in Quaternary and late Tertiary periods. The source of the windblown material is thought to be soils of the Pecos Valley to the southwest. Wind has reworked most of the sediments since the alluvium was originally deposited. The parent material is largely calcareous, unconsolidated sandy and silty material. In some places the lime content has been increased by a high water table. Some shallow enclosed basins have received lime from surrounding areas (*6*).

Many of the soils in the Southern Desertic Basins, Plains, and Mountains Area also formed in windblown and water-laid material that was deposited in Quaternary and late Tertiary periods. Some of the soils formed in valley-fill sediments of mixed mineralogy. These sediments were derived from materials deposited in Quaternary, Tertiary, Permian, Triassic, and Recent periods. The Quaternary sediments are a combination of sandy alluvium, caliche, and eolian deposits. Silty alluvial deposits from the Triassic age are weathering into reddish calcareous soils that have moderately fine textured control sections. The sandy alluvial deposits derived from the Tertiary-age Ogallala Formation are the parent materials of the Mobeetie and Wink soils. The sandy eolian deposits are the parent materials of the Berino and Maljamar soils.

Time

Soil formation requires time. Many soil characteristics are determined by the length of time that the soil-forming factors have been acting. The kind of parent material, climate, relief, as well as biological activity, are interdependent with time in the formation of soils. If soil-forming factors have not been active long enough for a soil to be in balance with its environment, the soil may show little evidence of soil formation, for example, the Tivoli, Kermit, and Tonuco soils. Soils that have been in place a long time and are in balance with their environment have distinct horizon formation, for example, the Amarillo, Arvana, and Brownfield soils.

Steep soils are immature, because geologic erosion has displaced the soil material about as fast as it forms. Potter soils are representative of this type of slow soil development. Stony rolling land is an example of soil material in which there is little or no development because of slope.

Representative Soil Horizons

The action of the soil-forming factors is reflected in the soil profile, which is a succession of horizons, or layers, from the surface down to unalterable material. The horizons differ in one or more properties, such as color, texture, thickness, structure, consistence, porosity, and reaction.

Mollic and ochric epipedons and cambic, argillic, and calcic horizons are the major horizons in the soils of Lea County. Lea, Kimbrough, Mansker, and Portales soils have a mollic epipedon.

Argillic and cambic horizons are typically subsoil horizons, but after erosion or land leveling, they may occur at the surface. Arvana, Amarillo, Berino, Maljamar, Stegall, and Palomas soils, for example, have an argillic (B2t) horizon. This horizon has a significant accumulation of silicate clays. The clay films on the surface of

peds indicate a downward movement of clay from the epipedon (A horizon).

Lea, Gomez, Midessa, and Pajarito soils have a cambic (B) horizon. In this horizon, soil-forming processes have altered the earthy parent material enough to form structure and to form silicate clays.

The calcic horizon is one of secondary carbonate enrichment and is 6 inches or more thick. The calcium carbonate equivalent content is 15 percent or more. It is at least 5 percent more in this horizon than in the C horizon. The letter designation *ca* is used to indicate accumulations of calcium carbonate or calcium magnesium carbonates. The accumulations may be in the C horizon, in mollic epipedons, and in argillic or other horizons. Sometimes it is difficult or even impossible to distinguish calcic horizons from horizons naturally high in calcareous material. Examples of soils that have a calcic horizon are the Mansker, Portales, Gomez, and Wink soils.

Some soils lack cambic or argillic horizons. The letter *C* is used to designate a horizon below the epipedon in these soils. Tivoli and Kermit soils, for example, do not have a diagnostic horizon, but they do have an ochric epipedon over sand parent material that is only slightly altered.

Classification of the Soils

The purpose of soil classification is to help us remember the significant characteristics of soils, assemble our knowledge about soils, see their relationships to one another and to the whole environment, and develop principles relating to their behavior and their response to manipulation. First through classification and then through the use of soil maps, we can apply our knowledge of soils to specific fields and other tracts of land.

The current system of soil classification (*1*, *8*) was adopted by the Cooperative Soil Survey in 1965. It is a comprehensive system, designed to accommodate all soils. In this system classes of soils are defined in terms of observable or measurable properties. The properties chosen are primarily those that result in the grouping of soils of similar genesis, or mode of origin. Genesis does not, however, appear in the definitions of the classes.

The current system of classification has six categories. Beginning with the most inclusive, the categories are the order, the suborder, the great group, the subgroup, the family, and the series. Table 9 shows the classification of the soils of Lea County according to this system. Brief descriptions of the six categories follow.

Order.—Ten soil orders are recognized: Entisols, Vertisols, Inceptisols, Aridisols, Mollisols, Spodosols, Alfisols, Ultisols, Oxisols, and Histosols. The properties used to differentiate orders are those that tend to give broad climatic groupings of soils. Two exceptions to this generalization are the Entisols and the Histosols, both of which occur in many different climates. Five of the 10 orders are represented in Lea County: Alfisols, Inceptisols, Mollisols, Aridisols, and Entisols.

Suborder.—Each order is divided into suborders, mainly on the basis of soil characteristics that result in grouping soils according to genetic similarity. The climatic range is narrower than that of the order. The properties used are mainly those that reflect either the presence or absence of waterlogging or differences in climat vegetation.

Great group.—Each suborder is divided into groups on the basis of similarity in the kind and sequ of the major horizons and in major soil properties. horizons considered are those in which clay, iron humus have accumulated and those in which pans interfere with the growth of roots and the movemer water have formed. The properties are soil tempera chemical composition (mainly content of calcium, nesium, sodium, and potassium), and the like.

Subgroup.—Each great group is divided into groups, one that represents the central (typic) concep the group, and others, called intergrades, that have or more properties of another great group, suborde order.

Family.—Families are established within each group, primarily on the basis of properties importa the growth of plants or properties significant in engi ing. Texture, mineralogy, reaction, soil temperature, meability, thickness of horizons, and consistence among the properties considered.

Series.—A series is a group of soils that has hori similar in all important characteristics, except for tex of the surface layer, and similar in arrangement in profile. (See the section "How This Survey Was Mad

General Nature of the County

Lea County was organized in 1917 from parts of Ch and Eddy Counties. Since then the county has been mostly for grazing livestock. Many farmers settle New Mexico between 1916 and 1920 to homestead 160- tracts of land. The farm population is centered arc Lovington and Hobbs and extends north and northea Tatum and Bronco. Areas in the rough sandy lands a the Texas border, in the southern part of the county, near the western and northwestern margins of the co are less populated.

Oil was discovered near Hobbs and Jal in 1928, and oil industry has expanded rapidly. Prior to 1928, ra ing and farming were the principal occupations. In the boundaries of a large area of shallow ground w were established to form the Lea County Shallow W Basin. The basin, the center of which is slightly eas Lovington, is about 25 miles wide and 50 miles l Within a year of its establishment, 5,000 acres were u irrigation. With increasing development and inte more than 125,000 acres were under irrigation by 1957

Physiography and Drainage

The northern half of Lea County is in the southwes part of the Llano Estacado, or Staked Plains, which remnant of the southern extension of the Southern H Plains. The Southern High Plains are remnants vast debris apron spread along the eastern front of mountains of Central New Mexico by streams flowing ward and southeastward during the Tertiary period. southeastward movement of debris is reflected in the p ent-day soil pattern. With the exception of the sa undulating areas along the eastern and northern ed

TABLE 9.—*Classification of soils series by higher categories*

[Placement of some series in this classification system, especially in the family category, may be changed as more precise information becomes available; placement is current through November 1970]

Series	Family	Subgroup	Order
Amarillo	Fine-loamy, mixed, thermic	Aridic Paleustalfs	Alfisols.
Arch	Fine-loamy, mixed, thermic	Ustochreptic Calciorthids	Aridisols.
Arvana	Fine-loamy, mixed, thermic	Petrocalcic Paleustalfs	Alfisols.
Berino	Fine-loamy, mixed, thermic	Typic Haplargids	Aridisols.
Brownfield	Loamy, mixed, thermic	Arenic Aridic Paleustalfs	Alfisols.
Cacique	Fine-loamy, mixed, thermic	Petrocalcic Paleargids	Aridisols.
Cottonwood	Loamy, mixed (calcareous), thermic, shallow	Ustic Torriorthents	Entisols.
Drake	Fine-loamy, mixed (calcareous), thermic	Typic Ustorthents	Entisols.
Drake, low rainfall variant.	Fine-loamy, mixed (calcareous), thermic	Ustic Torriorthents	Entisols.
Gomez	Coarse-loamy, mixed, thermic	Aridic Ustochrepts	Inceptisols.
Jal	Fine-loamy, carbonatic, thermic	Typic Calciorthids	Aridisols.
Kermit	Siliceous, thermic	Typic Torripsamments	Entisols.
Kimbrough	Loamy, mixed, thermic, shallow	Petrocalcic Calciustolls	Mollisols.
Largo	Fine-silty, mixed (calcareous), thermic	Typic Torriorthents	Entisols.
Lea	Fine-loamy, mixed, thermic	Petrocalcic Paleustolls	Mollisols.
Maljamar [1]	Fine-loamy, mixed, thermic	Arenic Haplargids	Aridisols.
Mansker	Fine-loamy, mixed, thermic	Aridic Calciustolls	Mollisols.
Midessa	Fine-loamy, mixed, thermic	Aridic Ustochrepts	Inceptisols.
Mobeetie	Coarse-loamy, mixed, thermic	Aridic Ustochrepts	Inceptisols.
Pajarito	Coarse-loamy, mixed, thermic	Typic Camborthids	Aridisols.
Palomas	Fine-loamy, mixed, thermic	Typic Haplargids	Aridisols.
Patricia	Fine-loamy, mixed, thermic	Aridic Paleustalfs	Alfisols.
Portales	Fine-loamy, mixed, thermic	Aridic Calciustolls	Mollisols.
Potter	Loamy, carbonatic, thermic, shallow	Ustollic Calciorthids	Aridisols.
Pyote	Loamy, mixed, thermic	Arenic Ustalfic Haplargids	Aridisols.
Reeves	Fine-loamy, gypsic, thermic	Calcic Gypsiorthids	Aridisols.
Sharvana	Loamy, mixed, thermic, shallow	Petrocalcic Ustalfic Palcargids	Aridisols.
Simona	Loamy, mixed, thermic, shallow	Typic Paleorthids	Aridisols.
Slaughter	Clayey, mixed, thermic, shallow	Petrocalcic Paleustolls	Mollisols.
Springer	Coarse-loamy, mixed, thermic	Udic Paleustalfs	Alfisols.
Stegall	Fine, mixed, thermic	Petrocalcic Paleustolls	Mollisols.
Tivoli	Mixed, thermic	Typic Ustipsamments	Entisols.
Tonuco	Sandy, mixed, thermic, shallow	Typic Paleorthids	Aridisols.
Upton	Loamy, carbonatic, thermic, shallow	Typic Paleorthids	Aridisols.
Wink	Coarse-loamy, mixed, thermic	Typic Calciorthids	Aridisols.
Zita	Fine-loamy, mixed, thermic	Aridic Haplustolls	Mollisols.

[1] The Maljamar series was proposed after the soil survey of the Eddy Area, N. Mex. was published. Consequently, some Maljamar mapping units in Lea County adjoin areas mapped as Berino soils in the Eddy Area.

this part of the county has a nearly flat surface. It has a gradient to the east and southeast of about 10 to 15 feet to the mile. Elevations on the Southern High Plains are 4,000 to 4,400 feet along the west side to 3,600 to 3,900 feet along the Texas line.

There are no perennial streams on the Southern High Plains. Rainfall is disposed of by seepage, evaporation, or incipient stream channels that fade out within a few miles or terminate in closed depressions, locally known as playas. Other common features of the Southern High Plains are undrained depressions called "buffalo wallows." These depressions are believed to have formed by leaching of the caliche cap and the calcareous cement of the underlying sandstone in the Ogallala Formation and subsequent removal of the loosened material by winds (*4*).

Water in the shallow water basin is found in the sands and gravels of the Ogallala Formation. The thickness of the saturated sediments at Lovington is 125 feet, which is slightly less than the average for a major part of the basin. They thin to less than 25 feet on the north, west, and south. Recharge from rainfall into this basin is very small. However, there is a large volume of water contained in ground storage in these sediments. Fairly reliable information indicates that some 25,000,000 acre-feet of water is stored in the Ogallala Formation in Lea County. Under present controls, a minimum of 40 years of development appears assured (*7*).

The southern half of Lea County consists of gently sloping sandy plains. Maximum relief is 100 feet. The slope is gradual to the south and southeast. This part of the county lies in the Southern Desertic Basins, Plains, and Mountains Land Resource Area. Elevations are 4,200 feet in the northwestern part to 3,000 feet in the southeastern part near the Texas line.

The natural drainage is south to southeast. Monument Draw, which heads in the lower portions of the Southern High Plains, north of Monument Community, and drains southward into Texas near the southeast corner of Lea County, is the only extensive drainageway. It is intermittent because of the low rainfall and the deposition of sediments along its course. Surface drainage is into numerous undrained depressions.

Climate [5]

Lea County has a semiarid, continental climate—warm summers, cool, dry winters, and plenty of sunshine. Moisture from the Gulf of Mexico moving from the southeast in the general circulation is the primary source of rainfall.

The northern part of Lea County receives greater amounts of rain because the moist air moves upslope. Strong surface heating in the summer contributes to the brief and heavy thunderstorms which are responsible for most of the yearly rainfall. Blizzards are rare, and snow generally melts soon after falling.

Table 10 summarizes temperature and precipitation data for Lovington, which is generally representative for all of Lea County. Temperatures are a little warmer in the southern and western parts of the county and a little cooler in the northern part. The county is one of the warmer parts of the State. Summer temperatures of 90 degrees or more occur about 66 percent of the time. Winter temperatures reach the freezing point on about 66 of the days. Temperatures seldom go below zero, and generally they go above the freezing point during the day. Extreme temperatures recorded in the county are a high of 113° F. at Maljamar in June 1944 and a low of −32° at Tatum in February 1933.

Figures 13 and 14 show the probabilities of specified temperatures occurring on indicated calendar dates in spring and fall. Because these charts are based on data recorded at Lovington, a few days difference will be likely in the cooler northern areas of the county and t warmer southern and western areas.

To use figure 13, select the temperature you are inte ested in (32° for example), select the calendar date y want (April 30), and note the point where these lin intersect. Follow this point to the left to find the prob bility (about 10 percent). This means that there is abo a 10 percent chance that the temperature will be 32° lower on April 30th of any given year. Figure 14 is us in the same manner but the probabilities for a giv temperature are on or before the specified dates.

Average annual precipitation in Lea County rang from about 16 inches in the northern part to abo 12 inches in the southern part. Approximately 80 pe cent of the annual rainfall occurs in the six-month peri of May through October, much of it in brief but hea thundershowers. Record rainfalls of 36.49 inches for t month of May 1941 and 7 inches on July 30, 1925, ha been recorded at Tatum. The lowest recorded rainfa occurred at Ochoa, where only 2.46 inches fell in 1956.

Average annual snowfall ranges from about 4 inches the southern part of the county to about 10 inches in t northern part. The record for any one month was 1 inches at Lovington, in February 1961, and for one da 18 inches on February 20, 1961. Nearly half the wint months, on the average, have no measurable snowfall.

From November through April surface winds in L County are mostly from the southwest, and from M through October they are from the southeast. The dire tion of the currents is determined by the general circu tion around the Bermuda high pressure area and is mo fied by the low pressure over Arizona in summer. T

[5] By FRANK E. HOUGHTON, State climatologist for the State of New Mexico.

TABLE 10.—*Temperature and precipitation data*

[All data from Lovington, Lea County, N. Mex.]

Month	Temperature				Precipitation				
	Average daily maximum	Average daily minimum	Two years in 10 will have at least 4 days with—		Average total	One year in 10 will have—		Average number of days with precipitation	
			Maximum temperature equal to or higher than	Minimum temperature equal to or lower than		Less than—	More than—	0.10 inch or more	0.25 inch or mor
	°F.	°F.	°F.	°F.	In.	In.	In.		
January	57	26	71	12	0.52	(1)	1.3	2	
February	62	28	76	14	0.56	(1)	1.4	2	
March	69	33	82	20	0.51	(1)	1.5	1	
April	78	42	90	29	0.63	0.1	1.5	1	
May	85	51	94	40	2.18	0.5	3.1	4	
June	92	60	102	53	1.50	0.1	3.1	3	
July	92	63	100	58	2.52	1.0	4.2	5	
August	92	62	99	56	2.15	0.3	4.5	4	
September	86	55	95	44	2.27	0.2	4.9	4	
October	77	45	88	35	1.60	0.2	2.9	3	
November	65	32	78	20	0.44	(1)	1.1	2	
December	58	27	72	16	0.56	(1)	1.4	2	
Year	76	44	[2] 103	[3] 3	15.44	9.4	23.1	33	

[1] Less than 0.05 inch.
[2] Average annual maximum.
[3] Average annual minimum.

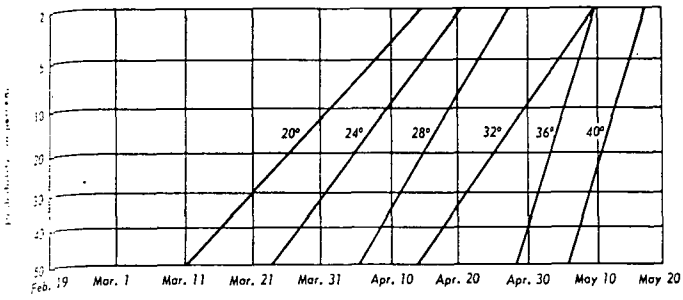


Figure 13.—**Probability of temperatures as low as or lower than those specified, on or after indicated dates in spring.**

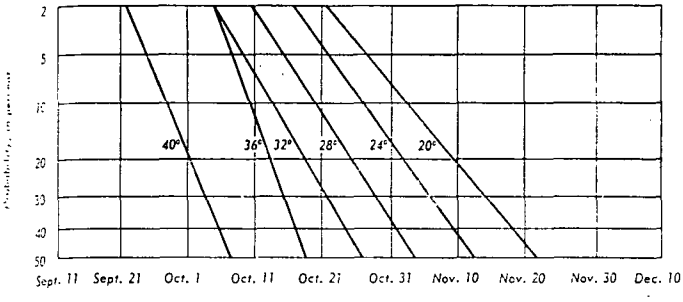


Figure 14.—**Probability of temperatures as low as or lower than those specified, on or before indicated dates in fall.**

average annual wind velocity is 12.2 miles per hour, with monthly averages ranging from 10.0 miles per hour in October to 15.0 miles per hour in March. In spring, winds generally have the higher velocities and in fall, the lower velocities. Winds in excess of 46 miles per hour are mostly from the west. On the average they occur twice a year.

A tabulation of windstorms and duststorms at Hobbs Airport during the early 1940's showed that blowing dust was most common in the month of March, when winds were more than 25 miles per hour. Blowing duststorms that significantly reduced visibility averaged only 5 hours per year.

Tornados or funnel clouds occur about once or twice a year in Lea County. The record for annual occurrences is five in 1957, but none were reported in 1955 and 1958. Many reported tornados were over open land and caused no damage. Occasionally tornados have been accompanied by heavy hail that in places caused extensive damage to crops. Tornados have occurred mainly between 2 and 5 p.m., but have been as early as 3 a.m. The greatest number occur in April and May, but they have occurred as late as mid-September.

Evaporation from a Class A measuring pan ranges from 105 to 110 inches a year on the average, and from a lake surface, from 45 to 49 inches. Sixty-seven percent of the evaporation takes place during the six-month period May through October. Less than 10 inches of variation from the average annual evaporation occurs in 2 years out of 3.

The average annual relative humidity of the county is 45 to 50 percent. Average monthly humidities are slightly lower during the spring months than for the rest of the year.

An average of about 75 percent of the possible sunshine may be expected during the year. The percentage is higher in June and during the fall season and a bit lower in winter. Similarly, the average cloud cover is four-tenths and is less in June and during the fall season and more in winter.

Farms and Ranches

The economy of Lea County depends primarily on agriculture. Cotton, grain sorghum, and alfalfa are the major cash crops. Grasses support cattle, sheep, swine, and horses. In 1965, a total of 117,570 acres was farmed. Cropland harvested amounted to nearly 75,570 acres. Cotton was grown on about 25,000 acres, grain sorghum on about 24,000 acres, and alfalfa and other hay crops on about 11,000 acres. Small grain, vegetables, and broomcorn were also important crops.

Beef cattle is the most important kind of livestock, and cattle ranches are located throughout the county. Most farmers raise cattle to supplement their crop income. In the past few years, large acreages of shallow gravelly soils and rolling sandy soils have been cleared of brush by ranchers and farmers and seeded to grass.

A few of the large ranch owners have purebred herds, but most ranchers use purebred bulls and have high-grade cows. The crossing of more hardy breeds of cattle and culling of inferior animals is gradually improving the quality of the herds. Most of the cattle are kept on the range throughout the year. In winter the cattle are usually fed cottonseed cake, minerals, and bundle feeds to supplement range forage. In summer sudangrass, bermudagrass, and stubble are used for temporary grazing while native grasses rest during part of the growing season and produce seed for regrowth.

In 1965, dairy cattle numbered approximately 2,300, and sheep about 54,000. Horses are less common and are used mainly for ranching and recreation. Hog production is low. About 4,000 hogs and pigs were marketed locally in 1965.

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Glossary

Alluvial fan. A fan-shaped deposit of sand, gravel, and fine material dropped by a stream where its gradient lessens abruptly.

Alluvium. Soil material, such as sand, silt, or clay, that has been deposited on land by streams.

Available water holding capacity. The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil.

Badlands. Areas of rough, irregular land where most of the surface is occupied by ridges, gullies, and deep channels. Land hard to traverse.

Blowout. An excavation produced by wind action in loose soil, usually sand.

Calcareous soil. A soil containing enough calcium carbonate (often with magnesium carbonate) to effervesce (fizz) visibly when treated with cold, dilute hydrochloric acid.

Caliche. A more or less cemented deposit of calcium carbonate in many soils of warm-temperate areas, as in the Southwestern States. The material may consist of soft, thin layers in the soil or of hard, thick beds just beneath the solum, or it may be exposed at the surface by erosion.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay film. A thin coating of clay on the surface of a soil aggregate. Synonyms: Clay coat, clay skin.

Colluvium. Soil material, rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

Concretions. Grains, pellets, or nodules of various sizes, shapes, and colors, consisting of concentrations of compounds or of soil grains cemented together. The composition of some concretions is unlike that of the surrounding soil. Calcium carbonate and iron oxide are examples of material commonly found in concretions.

Consistence, soil. The feel of the soil and the ease with which a lump can be crushed by the fingers. Terms commonly used to describe consistence are—

Loose.—Noncoherent when dry or moist; does not hold together in a mass.

Friable.—When moist, crushes easily under gentle pressure between thumb and forefinger and can be pressed together into a lump.

Firm.—When moist, crushes under moderate pressure between thumb and forefinger, but resistance is distinctly noticeable.

Plastic.—When wet, readily deformed by moderate pressure but can be pressed into a lump; will form a "wire" when rolled between thumb and forefinger.

Sticky.—When wet, adheres to other material, and tends to stretch somewhat and pull apart, rather than to pull free from other material.

Hard.—When dry, moderately resistant to pressure; can be broken with difficulty between thumb and forefinger.

Soft.—When dry, breaks into powder or individual grains under very slight pressure.

Cemented.—Hard and brittle; little affected by moistening.

Drainage class (natural). Refers to the conditions of frequency duration of periods of saturation or partial saturation existed during the development of the soil, as opposed altered drainage, which is commonly the result of artificial drainage or irrigation but may be caused by the sudden deepening of channels or the blocking of drainage outlets. Several ferent classes of natural drainage are recognized.

Excessively drained soils are commonly very porous and rapidly permeable and have a low water-holding capacity.

Somewhat excessively drained soils are also very permeable are free from mottling throughout their profile.

Well-drained soils are nearly free from mottling and are monly of intermediate texture.

Moderately well drained soils commonly have a slowly permeable layer in or immediately beneath the solum. They uniform color in the A and upper B horizons and mottling in the lower B and the C horizons.

Somewhat poorly drained soils are wet for significant periods but not all the time, and in Podzolic soils commonly mottlings below a depth of 6 to 16 inches, in the low horizon and in the B and C horizons.

Poorly drained soils are wet for long periods and are gray and generally mottled from the surface down although mottling may be absent or nearly so in some

Very poorly drained soils are wet nearly all the time. have a dark-gray or black surface layer and are gray or gray, with or without mottling, in the deeper parts of profile.

Eolian soil material. Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes, loess in blankets on the surface.

Erosion. The wearing away of the land surface by wind (blast), running water, and other geological agents.

Fertility, soil. The quality of a soil that enables it to provide pounds, in adequate amounts and in proper balance, for growth of specified plants, when other growth factors, as light, moisture, temperature, and the physical conditions the soil are favorable.

Field moisture capacity. The moisture content of a soil, expressed a percentage of the oven-dry weight, after the gravitational free, water has been allowed to drain away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity, normal moisture capacity,* or *capillary capacity*

Flood plain. Nearly level land, consisting of stream sediments, borders a stream and is subject to flooding unless protected artificially.

Gypsum. Calcium sulphate.

Horizon, soil. A layer of soil approximately parallel to the surface that has distinct characteristics produced by soil-forming processes. These are the major horizons:

O horizon.—The layer of organic matter on the surface of a mineral soil. This layer consists of decaying plant residue

A horizon.—The mineral horizon at the surface or just below O horizon. This horizon is the one in which living organisms are most active and therefore is marked by the accumulation of humus. The horizon may have lost one or more of soluble salts, clay, and sesquioxides (iron and aluminum oxides).

B horizon.—The mineral horizon below an A horizon. The horizon is in part a layer of change from the overlying to the underlying C horizon. The B horizon also has distinctive characteristics caused (1) by accumulation of sesquioxides, humus, or some combination of these; (2) prismatic or blocky structure; (3) by redder or stronger colors than the A horizon; or (4) by some combination these. Combined A and B horizons are usually called solum, or true soil. If a soil lacks a B horizon, the A horizon alone is the solum.

C horizon.—The weathered rock material immediately below the solum. In most soils this material is presumed to be that from which the overlying horizons were formed. If material is known to be different from that in the solum Roman numeral precedes the letter C.

R layer.—Consolidated rock beneath the soil. The rock usually underlies a C horizon but may be immediately beneath A or B horizon.

TECHNICAL REPORT NO. 13

State of New Mexico
State Engineer Office
Santa Fe, N. Mex.

ANNUAL WATER-LEVEL MEASUREMENTS IN OBSERVATION WELLS, 1951-1955, AND ATLAS OF MAPS SHOWING CHANGES IN WATER LEVELS FOR VARIOUS PERIODS FROM BEGINNING OF RECORD THROUGH 1954, NEW MEXICO

HIGH PLAINS
PECOS RIVER VALLEY
SOUTH-CENTRAL CLOSED BASINS
RIO GRANDE VALLEY
SOUTHWESTERN NEW MEXICO

By

H. O. Reeder and Others
U. S. Geological Survey

1959

TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY

By

C. F. Berkstresser, Jr.

Location and Description of Area

Lea County is in the southeastern corner of New Mexico. The Tatum-Lovington-Hobbs irrigation area is in the northern part of the county on the Llano Estacado. Prior to irrigation the area was devoted chiefly to raising cattle and dry-land feed crops. Since the development of irrigation from wells, cotton, alfalfa, and other crops are grown successfully.

In most of the area of this report, red beds of the Dockum group of Triassic age, consisting mainly of red or purplish-red shale and sandstone, underlie the Ogallala formation of Tertiary age. The Ogallala formation in this area, consisting of sand, caliche, gravel, and some clay, ranges from about 50 to more than 300 feet in thickness. Thin beds of Cretaceous rocks lying between the Dockum and Ogallala occur in places, principally in the northeastern part of the area, and at or near the surface about 8 miles northwest of Tatum.

Ground water in northeastern Lea County is obtained mainly from the Ogallala formation. The most extensive aquifer is a bed of loose or poorly consolidated fine sand, and various mixtures of sand and gravel. Cavernous caliche yields water to wells in places. The saturated zone in the irrigated area ranges in thickness from about 25 feet to more than 200. Depths to water range from less than 30 feet to about 260 feet, and average about 60 feet. The water is of good chemical quality.

The ground-water reservoir is recharged by precipitation, mainly from runoff in the drainageways and numerous depressions that dot the Llano Estacado. Ground water moves east-southeasterly except in the extreme southern part of the Llano Estacado where movement is more southerly. Springs along the western and southern borders of the Llano Estacado discharge a small amount of water, but wells discharge the greatest quantity of water from the ground-water reservoir.

The Lea County Underground Water Basin was declared by order of the State Engineer on August 21, 1931, and closed to further appropriation of ground water on December 29, 1948. The basin area was extended by order of the State Engineer on October 1, 1952. Certain townships were reopened to further appropriation of water on December 31, 1952, and February 2, 1953. The declared basin now includes an area of about 2,180 square miles.

Scope of the Water-Level Program

A reconnaissance study of the geology and ground water of the shallow-water area in Lea County was made in the fall of 1929. Data from wells were

collected and one recording gage was installed; two more recording gages were installed in January 1930. Water levels have been measured periodically since November 1929. The number of measurements of water levels made each January, shown in table 6, has increased gradually as irrigation increased. From 1930 to 1940, 16 to 20 wells were measured monthly as well as annually. About 30 wells were measured from 1941 through 1953 and 40 wells in 1954 were measured at bimonthly intervals in addition to the annual measurements. The annual measurements from 1951 through 1955 are given in table 7. The three wells on which recording gages were in operation in January 1955 and the time of installation are as follows: 16.36.4.Lot 12 (E. H. Byers), August 1940; 16.38.3.333 (State of New Mexico), September 1953; and 17.33.13.341 (Potash Company of America), July 1952. Other wells also have been equipped with recording gages for various periods of time.

Development of Ground Water

By November 1929, 41 irrigation wells had been drilled on the Llano Estacado, of which 17 were unused and 24 were used only occasionally by that time. It is estimated that less than 500 acre-feet of water was pumped for irrigation in 1930, about 850 acre-feet in 1931, about 950 acre-feet in 1932, and about 1,225 acre-feet in 1933. Irrigated acreage increased steadily until 1947, when 9,300 acres of land was irrigated. From 1947 to 1950 irrigated acreage increased very rapidly until about 89,000 acres was irrigated. By 1954, about 93,000 acres was irrigated with 163,000 acre-feet of water pumped from nearly 1,000 wells. Data showing the increase in pumpage and irrigated acreage from 1937 through 1954 are given in table 6.

Changes in Water Level

Observation wells in Lea County generally are separated by several miles and the relation of changes in their water levels are not always readily apparent. Fluctuations of water levels in observation wells distant from pumping wells are affected mainly by precipitation as shown by the hydrographs of wells 14.35.33.433 (prior to 1952) and 17.35.35.213 (fig.46). Fluctuations of water levels in lightly and sporadically pumped areas are affected both by precipitation and pumping whereas those in more heavily pumped areas are affected mainly by pumping.

Water levels in observation wells in pumped areas fluctuate seasonally, declining through the pumping season and rising during the winter. Rises during the winter usually do not equal the drawdowns of the preceding summer, except after periods of above normal rainfall. Generally, water levels decline from year to year. See figure 46.

During the first 11 years of record (1930-1940) in the Lea County area, water levels declined as much as 1.5 feet in the representative wells shown in figure 46. The record of well 14.35.33.433 is exceptional in that it shows a rise of about 0.5 foot during that period. Seasonal fluctuations show as minor irregularities on the hydrographs.

Heavy precipitation in 1941 greatly reduced the ground-water requirements and provided unusually large recharge. Water levels rose in all but one

observation well, which is in a heavily pumped area northeast of Hobbs. The greatest observed rise in water level was 8.65 feet in a well about a mile northwest of Tatum, and the levels in four other observation wells rose more than 4 feet. At the end of 1941, water levels were higher than any previously recorded with the exception of the well northeast of Hobbs. Water levels continued to rise in many observation wells in 1942 and the maximum rise was 2.8 feet. In some areas, however, declines of more than 2 feet were observed.

In 1943 water levels declined slightly in most of the observation wells. In 1944 changes in water levels were irregular over the area owing to generally adequate rainfall during the growing season. In 1945 water levels declined in nearly all the irrigated areas of Lea County. The mean net yearly change for the observation wells was a decline of 0.5 foot. Water levels declined more than 1 foot in only a few wells, mainly in areas where irrigation wells are closely spaced. Water levels rose slightly in a few wells. Although water levels had declined since 1942, the water table was higher in 1945 than it was from 1930 to 1940.

Pumpage was about the same in 1946 as in 1945, in spite of an increased number of wells, because of heavy precipitation during the latter part of 1946. Water levels rose in most of the wells measured, and the rise was as great as 3 feet in some wells. The greatest rise in water level was south of Lovington which apparently received the greatest amount of precipitation. Water levels rose an average of 0.26 foot. Water levels declined in a heavily pumped area near Lovington.

Water levels declined slightly each year from 1946 to 1949. Since 1949 the annual declines have become much larger, because of an increase in pumpage and a persistent drought. Declines for 1954 were somewhat less than those of the preceding several years owing to near normal precipitation. The accompanying series of maps, figures 47 through 55, show the magnitude of water-level changes areally.

Summary and Conclusions

Records of water levels to date show that the ground-water reservoir is recharged significantly only during and following periods of above-normal precipitation, such as 1941. The net annual declines of water levels depend for the most part upon the amount of water pumped, which in turn depends partly upon the acreage under irrigation and partly upon the amount of precipitation. Water levels decline to a greater extent during years of heavy pumping and deficient precipitation, such as from 1951 to 1954.

Although water levels have risen at intervals, ground water is pumped essentially from storage. It is expected, therefore, that water levels will continue to decline. However, at the present rate of consumption, the supply of ground water appears to be adequate for many years.

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Year of observation	Year of publication	Water-Supply Paper	Pages
1935	1936	777	106
1936	1937	817	194-195
1929-1940	1941	911	177-200
1941	1943	941	214-227
1942	1944	949	294-302
1943	1945	991	247-255
1944	1947	1021	236-245
1945	1949	1028	244-252
1946	1949	1076	253-261
1947	1951	1101	236-246
1948	1951	1131	213-225
1949	1952	1161	222-237
1950	1953	1170	216-229
1951	1954	1196	187-192
1952	1955	1226	202-208
1953	1956	1270	215-221
1954	1957	1326	222-228

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7. Annual water levels in the Tatum-Lovington-Hobbs area, Lea County, January 1951 through January 1955, highest and lowest recorded annual levels, in feet below land-surface datum; and annual changes, and change from January 1950 to January 1955, in feet 100

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Figure 46. Graphs showing fluctuations of water levels in five representative wells, and precipitation in Lea County, N. Mex., 1929-1954 104

TABLE 6. -- Precipitation, irrigated acreage, pumpage, number of measurements of water level, and areas of water-level decline, 1937 to 1954, in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

Year	Lovington		Estimated acres irrigated	Estimated irrigation pumpage (ac-ft)	Annual measurements	Area in square miles in which water level declined more than			
	Precip. (in.)	Depart. (in.)				1 ft	2 ft	3 ft	4 ft
1937	15.66	+ .19	1,500	1,800	19	0	0	0	0
1938	15.55	+ .08	1,850	1,700	26	0	0	0	0
1939	14.92	- .55	2,400	2,200	58	-	0	0	0
1940	12.43	- 3.03	2,950	3,200	78	-	0	0	0
1941	34.81	+19.34	2,600	1,550	82	Rises	Rises	Rises	Rises
1942	17.63	+ 2.16	3,000	3,500	84	-	-	0	0
1943	11.96	- 3.51	3,200	6,000	86	-	-	0	0
1944	19.04	+ 3.57	3,400	3,500	87	0	0	0	0
1945	6.79	- 8.68	3,800	6,500	88	0	0	0	0
1946	18.00	+ 2.53	5,000	3,500	90	-	-	0	0
1947	8.33	- 7.14	9,300	19,000	94	0	0	0	0
1948	e11.77	- 3.70	25,000	39,000	112	94	24	3	0
1949	25.06	+ 9.59	71,000	60,000	162	23	20	0	0
1950	e17.34	+ 1.87	89,000	95,000	184	126	40	10	-
1951	11.14	- 4.33	91,000	153,000	192	256	106	17	2
1952	9.28	- 6.19	92,000	166,000	192	454	226	89	38
1953	9.37	- 6.10	92,600	165,000	180	373	137	49	7
1954	14.29	- 1.18	93,000	163,000	203	243	78	17	3

e Estimated.

TABLE 7. -- Annual water levels in Tatum-Lovington-Hobbs area, Lea County, in January 1951 through January 1955, highest and lowest recorded annual levels, in feet below land-surface datum; and annual changes, and change from January 1950 to January 1955, in feet.

Location Number	Name	Source	WATER LEVELS																Record			
			1951 January		Change 1950-51	1952 January		Change 1951-52	1953 January		Change 1952-53	1954 January		Change 1953-54	1955 January		Change 1954-55	Change 1950-55	Highest		Lowest		Began	Years Missing
			Level	Day		Level	Day		Level	Day		Level	Day		Level	Day			Level	Year	Level	Year		
11.33.25.442	R. W. and Nancy S. Epperson											33.88	14	-	33.81	10	+ .07	-	33.81	55	33.88	54	54	
12.31.23.333	F. E. Dickson											130.24	15	-	130.37	13	- .13	-	130.24	54	130.37	55	54	
26.333	do.											132.17	15	-	132.08	13	+ .09	-	132.08	55	132.17	54	54	
26.333a	do.											130.40	15	-	130.51	13	- .11	-	130.40	54	130.51	55	54	
12.34.11.413	A. D. Jones Estate		30.16	18	- .38	30.58	12	- .42	31.04	10	- .46	31.47	14	- .43	31.81	10	- .34	- 2.03	29.78	50	31.81	55	50	
13.112	do.		35.45	18	- 3.38	35.53	12	- .08	38.17	10	- 2.64	(a)	-	-	41.81	10	-	- 9.74	29.68	48	41.81	55	48	54
35.411	do.		36.00	18	- .03	39.24	13	- 3.24	42.08	10	- 2.84	46.53	14	- 4.45	48.77	10	- 2.24	- 12.80	35.62	49	48.77	55	48	
12.36.19.223	O. V. Fisher		28.17	18	+ .69	a29.38	13	- 1.21	a30.36	10	- .98	a31.29	12	- .93	a31.82	13	- .53	- 2.96	22.13	43	a32.05	41	39	
24.434	Jerry Clay		22.26	18	+ .21	b32.40	13	-10.14	22.86	16	-	(a)	-	-	a22.68	13	-	-	+1.32	42	22.86	53	41	49,54
24.434a	do.		a24.02	18	- .50	b24.14	13	- .12	24.42	16	- .28	a24.66	12	- .24	24.85	13	- .19	- 1.33	22.85	48	24.85	55	48	
24.434b	do.		22.99	18	- .15	(i)												-	22.25	48	22.99	51	48	
29.111	E. D. Holt		c32.05	18	+ .08	32.32	12	- .27	-	-	-	(i)						-	30.72	47	32.32	52	47	53
29.112	do.		a39.32	18	- 7.87	32.17	12	-	32.86	16	- .69	33.42	14	- .56	-	-	-	-	k27.69	44	k34.24	41	30	55
29.122	do.		29.76	18	- .03	30.40	12	- .64	(h,i)									-	27.88	47	30.40	52	47	
29.241	do.														28.30	13	-	-	-	-	-	-	55	
12.37.20.331	W. O. Dunlap, Jr.		a6.83	18	- 4.07	a16.66	13	- 9.83	22.13	16	- 5.47	(a)	-	-	b31.94	13	-	- 29.18	+15.24	43	22.13	53	41	49,54
20.343	do.											25.63	12	-	26.63	13	- 1.00	-	25.63	54	26.63	55	54	
12.38. 4.312	G. C. Copeland		39.95	18	+ .82	40.31	13	- .36	41.02	16	- .71	41.38	9	- .36	41.64	13	- .26	- .87	39.15	43	43.35	41	41	
13.32.25.214												143.33	14	-	143.34	10	- .01	-	143.33	54	143.34	55	54	
25.214a												143.30	14	-	143.33	10	- .03	-	143.30	54	143.33	55	54	
13.35. 2.111a												27.71	12	-	28.31	13	- .60	-	27.71	54	28.31	55	54	
11.222	Ashley Green		36.65	18	- .41	42.64	13	- 5.99	44.51	10	- 1.87	45.85	12	- 1.34	47.29	13	- 1.44	- 11.05	29.14	43	47.29	55	30	32-38
19.211	Clara Elkins		(a)	-	-	47.80	13	-	49.49	10	- 1.69	b56.94	14	- 7.45	49.69	10	-	- 3.89	44.75	46	49.69	55	41	51
13.36. 6.413	R. W. Duncan		48.06	18	- 1.42	51.66	13	- 3.60	51.88	10	- .22	57.25	12	- 5.37	54.58	13	+ 2.67	- 7.94	44.94	48	57.25	54	48	
6.413a	do.								51.88	10	-	57.49	12	- 5.61	54.40	13	+ 3.09	-	51.88	53	57.49	54	53	
9.111	W. B. Baum		41.95	18	- 1.95	42.60	13	- .65	-	-	-	-	-	-	(i)			-	38.18	47	42.60	52	47	53,54
26.324	Mrs. Iona McClish		b53.29	17	-10.82	47.66	15	+ 5.63	52.08	15	- 4.42	52.35	12	- .27	55.00	12	- 2.65	- 12.53	42.24	49	55.00	55	49	
28.113	M. R. Anderson		47.47	18	- 2.33	49.05	15	- 1.53	50.92	10	- 1.87	52.04	12	- 1.12	53.93	13	- 1.89	- 8.79	44.77	49	53.93	55	49	
32.211	H. N. McDaniels		44.59	18	- 1.83	46.47	15	- 1.88	49.69	16	- 3.22	52.18	14	- 2.49	55.15	13	- 2.97	- 12.39	42.76	50	55.15	55	49	
33.321	L. V. Beaman		47.40	17	- 2.54	49.09	15	- 1.69	53.03	15	- 3.94	55.69	12	- 2.66	59.41	12	- 3.72	- 14.55	40.16	47	59.41	55	39	
35.324	M. J. McClish					53.74	15	-	58.62	15	- 4.88	60.11	12	- 1.49	63.62	12	- 3.51	-	53.74	52	63.62	55	52	
35.413	do.		a44.81	17	- 3.57	-	-	-	51.85	15	-	54.65	12	- 2.80	57.17	12	- 2.52	- 15.93	36.07	45	57.17	55	39	52
13.37. 3.131	Brady Lowe		41.38	18	- 2.19	40.61	13	+ .77	42.64	16	- 2.03	42.88	9	- .24	43.12	8	- .24	- 3.93	37.74	47	43.12	55	39	
3.133			(Incorrect designation used previously for well 13.37.4.422, which see.)																					
4.422	Brady Lowe		36.73	18	- 1.41	36.04	13	+ .69	38.42	16	- 2.38	39.21	9	- .79	39.53	8	- .32	- 4.21	33.83	43	39.53	55	40	42,48
7.234	W. D. Patton		30.51	18	- .31	30.93	15	- .42	31.54	16	- .61	32.15	9	- .61	32.55	8	- .40	- 2.35	29.57	48	32.55	55	47	
9.111	A. P. Breckon		37.21	18	- .35	37.53	15	- .32	37.94	16	- .41	38.39	9	- .45	38.81	8	- .42	- 1.95	36.33	48	38.81	55	48	
13.132	Taylor		29.01	18	-	29.47	13	- .46	-	-	-	31.28	9	-	31.78	8	- .50	-	26.46	42	31.78	55	30	53
28.413	Mr. Dorn		36.37	18	- .29	39.67	12	- 3.30	42.57	14	- 2.90	45.81	9	- 3.24	47.45	8	- 1.64	- 11.37	31.70	45	47.45	55	45	
13.38. 6.341	J. W. Anderson		43.28	18	+ .32	47.10	13	- 3.82	49.45	16	- 2.35	b55.28	9	- 5.83	57.48	8	- 2.20	- 13.88	43.02	45	57.48	55	40	
14.31.35.333												266.11	15	-	266.55	10	- .44	-	266.11	54	266.55	55	54	
14.33.34.344	Warren Petroleum Corp.											103.80	14	-	104.44	10	- .64	-	103.80	54	104.44	55	54	
14.35. 2.112												37.70	14	-	-	-	-	-	-	-	-	-	54	55
23.313	Mr. Anderson											37.94	6	-	40.61	11	- 2.67	-	37.94	54	40.61	55	54	
25.241	M. J. Wiggins		47.33	17	- 4.03	46.30	9	+ 1.03	47.11	10	- .81	47.44	9	- .33	51.06	11	- 3.62	- 7.76	43.30	50	51.06	55	49	
30.134	W. A. Anderson		44.97	17	+ .43	46.12	9	- 1.15	46.24	10	- .12	46.09	6	+ .15	46.27	11	- .18	- .87	44.97	51	48.93	41	39	
33.433	do.		39.66	17	+ .02	39.65	9	+ .01	40.69	10	- 1.04	41.71	6	+ 1.02	42.70	11	- .99	- 3.02	39.65	52	42.70	55	30	
14.36. 1.211	H. L. Wade		44.61	17	- 4.34	46.75	12	- 2.14	(a)	-	-	53.35	12	-	55.92	11	- 2.57	- 15.65	33.80	48	55.92	55	48	53
2.113	C. E. Renshaw		49.92	17	- 1.48	53.84	12	- 3.92	56.84	15	- 3.00	60.28	12	- 3.44	63.82	11	- 3.54	- 15.38	48.44	50	63.82	55	49	
2.410	do.		42.87	17	- 1.22	45.01	12	- 2.14	47.97	15	- 2.96	51.32	12	- 3.35	54.26	12	- 2.94	- 12.61	39.02	45	54.26	55	39	
4.111	Lewis Beaman		44.11	17	- .97	47.05	12	- 2.94	50.53	16	- 3.48	53.04	12	- 2.51	55.40	10	- 2.36	- 12.26	43.14	50	55.40	55	50	
6.421	S. A. & W. B. Richardson		41.45	17	- 1.06	41.96	12	- .51	44.55	16	- 2.59	a67.04	14	-22.49	47.91	10	-	- 7.52	39.03	44	47.91	55	40	45
9.111	A. C. Drake		44.55	17	- 1.39	46.30	12	- 1.75	49.16	14	- 2.86	50.94	12	- 1.78	53.90	10	- 2.96	- 10.74	38.36	44	53.90	55	39	
9.211	O. M. Woodward		46.48	17	- 1.49	49.24	12	- 2.96	(a)	-	-	55.27	12	-	58.30	11	- 3.03	- 13.31	40.46	43	58.30	55	39	53
10.212			49.00	17	- .68	51.97	12	- 2.97	55.92	15	- 3.95	58.08	12	- 2.16	61.43	11	- 3.35	- 13.11	47.98	49	61.43	55	49	
13.211	Mattie Field		38.20	17	- .68	39.34	12	- 1.14	40.78	15	- 1.44	42.39	9	- 1.61	43.97	11	- 1.58	- 6.45	35.74	46	43.97	55	30	
14.112	V. M. Chambers		42.21	17	- .62	43.43	12	- 1.22	-	-	-	44.83	9	-	46.32	11	- 1.49	- 4.73	40.75	46	46.32	55	39	53
21.111	Curtis Patterson		43.30	17	+ .05	45.35	15	- 2.05	46.75	14	- 1.40	47.58	14	- .83	49.01	11	- 1.43	- 5.66	42.69	49	49.01	55	49	
29.211	Mark Vaughn		44.64	17	+ .61	45.66	15	- 1.02	46.40	16	- .74	47.29	9	- .89	48.98	11	- 1.69	- 3.73	44.64	51	48.98	55	50	
32.121	H. H. Caldwell		57.22	17	- 3.17	62.10	9	- 4.88	59.38	10	+ 2.72	59.11	6	+ .27	58.94	11	+ .17	- 4.89	53.58	49	62.10	52	49	
33.131	Weldon Lair		59.12	17	- 2.20	59.98	9	- .86	61.54	14	- 1.56	64.76	14	- 3.22	64.86	11	- .10	- 7.94	56.92	50	64.86	55	49	

See footnotes at end of table.

TABLE 7. -- continued

TABLE 7. -- continued

Location Number	Name	Source	WATER LEVELS																		Record	
			1951 January		Change 1950-51	1952 January		Change 1951-52	1953 January		Change 1952-53	1954 January		Change 1953-54	1955 January		Change 1954-55	Change 1950-55	Highest		Lowest		Began	Years Missing
			Level	Day		Level	Day		Level	Day		Level	Day		Level	Day			Level	Year	Level	Year		
14.36.34.111	Shelby Battles		52.07	17	- .27	55.14	9	- 3.07	60.33	14	- 5.19	62.93	6	- 2.60	64.18	11	- 1.25	-12.38	51.80	50	64.18	55	50	
35.111	Bert Wright		(a)	-	-	b57.65	9	-	58.95	14	-	57.60	6	+ 1.35	64.68	11	- 7.08	-14.93	48.36	49	64.68	55	49	51
14.37. 2.121	H. R. Hobbs		34.47	18	-	37.55	12	- 3.08	41.90	14	- 4.35	45.63	9	- 3.73	47.38	8	- 1.75	-	34.47	51	47.38	55	51	
3.113	Lois C. Hobbs		(h,i)															-	31.40	45	34.74	50	39	42
3.113a	do.					44.81	12	-	50.55	15	- 5.74	51.42	9	- .87	52.38	8	- .96	-	44.81	52	52.38	55	52	
5.111	S. G. Knoll		35.78	17	- 2.44	39.06	11	- 3.28	42.66	15	- 3.60	47.54	12	- 4.88	53.68	11	- 6.14	-20.34	33.34	50	53.68	55	49	
5.211			33.34	17	- 1.32	38.47	11	- 5.13	43.79	15	- 5.32	44.65	12	- .86	46.34	11	- 1.69	-14.32	31.76	49	46.34	55	49	
6.111	E. L. Harbison		42.96	17	- 4.28	44.46	11	- 1.50	47.78	15	- 3.32	50.93	12	- 3.15	53.77	11	- 2.84	-15.09	37.38	49	53.77	55	49	
7.311	do.		44.82	17	- 1.55	47.12	11	- 2.30	a77.53	15	-30.41	52.76	9	-	55.05	11	- 2.29	-11.78	42.82	49	55.05	55	49	
8.113	do.		39.10	17	- 1.17	41.84	11	- 2.74	44.52	15	- 2.68	47.60	12	- 3.08	49.36	11	- 1.76	-11.43	37.93	50	49.36	55	49	
13.311	C. H. Spears		40.21	19	- 1.86	44.22	11	- 4.01	49.61	15	- 5.39	54.18	14	- 4.57	56.91	8	- 2.73	-18.56	35.57	49	56.91	55	49	
14.111	M. E. Powell		b46.26	19	-	48.11	11	- 1.85	53.82	15	- 5.71	59.45	9	- 5.63	61.05	8	- 1.60	-	36.12	49	61.05	55	49	50
14.112	do.		43.57	19	- 3.27	48.66	11	- 5.09	(i)									-	34.53	45	48.66	52	39	
15.222	O. H. Pope											59.44	9	-	61.00	8	- 1.56	-	59.44	54	61.00	55	54	
16.421	School Land		33.02	19	- 1.15	35.41	11	- 2.39	38.16	15	- 2.75	46.68	9	- 8.52	42.33	8	+ 4.35	-10.46	28.86	43	46.68	54	39	
19.111	A. B. Hennington		41.35	19	- .20	44.00	11	- 3.65	45.64	15	- 1.64	47.20	9	- 1.56	48.64	11	- 1.44	- 7.49	41.15	50	48.64	55	49	
20.412	G. O. Durham		38.47	19	- .87	40.79	11	- 2.32	44.96	15	- 4.17	47.97	9	- 3.01	50.56	8	- 2.59	-12.96	33.30	45	50.56	55	40	
23.213	Lee Whitman		41.22	19	- 2.25	45.40	11	- 4.18	50.27	15	- 4.87	55.01	9	- 4.74	58.27	8	- 3.26	-19.30	33.90	47	58.27	55	46	
27.131	J. R. Fort		39.28	19	- 1.09	42.02	11	- 2.74	45.82	15	- 3.80	49.67	9	- 3.85	(f,i)			-	36.14	47	49.67	54	30	
27.311	do.		37.16	19	- 1.06	49.65	11	-12.49	43.22	15	+ 6.43	46.40	9	- 3.18	49.13	8	- 2.73	-13.03	35.13	48	49.65	52	48	
31.333	T. N. & E. N. Miller		48.77	19	- 3.97	50.16	9	- 1.39	53.25	14	- 3.09	56.50	6	- 3.25	56.75	11	- .25	-11.95	44.80	50	56.75	55	50	
14.38. 7.113	B. F. Heidel		41.21	19	- .48	43.08	11	- 1.87	46.65	14	- 3.57	49.03	9	- 2.38	52.40	8	- 3.37	-11.67	40.73	50	52.40	55	50	
21.311	Claude Cox		36.60	19	- 2.36	38.16	11	- 1.56	42.22	13	- 4.06	44.00	5	- 1.78	45.02	4	- 1.02	-10.78	32.48	49	45.02	55	49	
27.233	M. M. Gaines		43.30	19	- 4.18	-	-	-	(i)									-	34.57	43	43.30	51	43	52
27.240	do.		45.21	19	- 3.93	49.87	11	- 4.66	(h,i)									-	36.80	46	49.87	52	39	43-45
27.313	Guy Cave		38.30	19	-	42.53	10	- 4.23	47.04	13	- 4.51	-	-	-	53.18	4	-	-	38.30	51	53.18	55	51	54
28.121	Ila Cox		(f,i)															-	24.28	42	28.16	50	30	
31.111	W. J. & D. O. Aldridge		38.70	19	- 1.25	39.73	11	- 1.03	40.99	14	- 1.26	42.06	5	- 1.07	42.96	4	- .90	- 5.51	37.45	50	42.96	55	49	
15.31.23.311												244.97	15	-	247.21	10	- 2.24	-	244.97	54	247.21	55	54	
15.33.14.100												a102.35	14	-	(a)	-	-	-	-	-	-	-	54	55
15.35. 2.211															43.16	11	-	-	-	-	-	-	55	
3.111	J. F. Watson					37.30	9	-	46.13	10	- 8.83	44.00	6	+ 2.13	44.81	11	- .81	-	37.30	52	46.13	53	52	
31.422	Joe Price		54.14	17	+ .27	56.41	8	- 2.27	55.87	9	+ .54	a64.69	15	- 8.82	56.54	7	-	- 2.13	54.14	51	56.54	55	49	
35.112	Mr. Jennings		41.83	16	- .66	43.34	8	- 1.51	45.41	9	- 2.07	46.41	15	- 1.00	46.78	7	- .37	- 5.61	39.60	43	46.78	55	40	
35.344	Mr. Anderson		46.55	17	- 1.17	47.72	8	- 1.17	49.33	9	- 1.61	50.67	15	- 1.34	51.25	7	- .58	- 5.87	44.57	49	51.25	55	49	
15.36. 1.311	Mrs. Ida F. Allen		45.01	19	- 1.36	47.21	9	- 2.20	49.28	14	- 2.07	51.09	6	- 1.81	53.23	11	- 2.14	- 9.58	43.60	49	53.23	55	49	
5.L2	J. P. Caudill		52.73	17	+ 6.51	56.89	9	- 4.16	59.83	10	- 2.94	61.27	6	- 1.44	61.90	11	- .63	- 2.66	52.73	51	61.90	55	50	
5.311	do.		44.20	17	- 1.66	46.88	9	- 2.68	49.47	9	- 2.59	50.49	6	- 1.02	52.97	11	- 2.48	-10.43	40.02	49	52.97	55	49	
8.111	Gordon Gann		46.73	17	- 2.72	49.41	9	- 2.68	(a,c)	-	-	52.58	6	-	55.14	11	- 2.56	-11.13	39.95	49	55.14	55	49	53
8.111a	do.		(a)	-	-	48.80	9	-	ac62.71	9	-	b52.06	6	-	b54.73	11	- 2.67	-11.36	43.37	50	b54.73	55	50	51
8.311	M. G. Adams		44.95	17	- .79	48.10	9	- 3.15	50.53	9	- 2.43	j52.65	6	- 2.12	54.82	11	- 2.17	-10.66	40.13	48	54.82	55	48	
9.311	E. L. & S. L. Sibley		47.88	18	- 1.42	50.80	9	- 2.92	54.46	9	- 3.66	57.15	6	- 2.69	60.63	11	- 3.48	-14.17	44.30	49	60.63	55	49	
14.131	Mrs. F. O. Graham		-	-	-	47.52	9	-	48.60	16	- 1.08	a81.47	6	-32.87	51.08	7	-	-	42.38	45	51.08	55	41	47-51
17.111	M. G. Adams		45.02	17	- .55	46.88	9	- 1.86	50.29	9	- 3.41	52.02	6	- 1.73	54.54	11	- 2.52	-10.07	44.47	50	54.54	55	49	
20.133	E. B. Parsons		48.49	17	- 1.87	51.90	9	- 3.41	52.84	9	- .94	54.59	6	- 1.75	56.13	7	- 1.54	- 9.51	45.25	49	56.13	55	49	
21.111	D. H. Crockett		44.77	17	- 1.30	46.30	9	- 1.53	48.53	9	- 2.23	51.36	6	- 2.83	54.63	7	- 3.27	-11.16	42.55	49	54.63	55	49	
28.133	J. R. & Boss Hale		b52.73	17	- 2.59	55.74	9	- 3.01	59.97	13	- 4.23	60.87	13	- .90	62.67	7	- 1.80	-12.53	44.53	47	62.67	55	47	
29.112	G. A. Fisher		49.13	17	- 1.07	52.39	9	- 3.26	54.49	9	- 2.10	56.56	6	- 2.07	57.97	7	- 1.41	- 9.91	44.90	48	57.97	55	48	
29.331	D. A. Hudgens		47.46	17	+ .47	49.45	9	- 1.99	51.46	9	- 2.01	53.52	6	- 2.06	55.34	7	- 1.82	- 7.41	47.46	51	55.34	55	49	
29.410	do.		(h,i)															-	41.89	42	50.65	49	39	46
29.410a	do.		b57.84	18	-10.12	52.99	9	-	54.00	10	- 1.01	56.29	6	- 2.29	57.82	7	- 1.53	-10.10	47.72	50	57.82	55	50	
29.421	H. R. Fleming		50.56	18	- 2.06	53.49	9	- 2.93	b59.71	10	- 6.22	58.59	14	-	-	-	-	-	47.69	48	58.59	54	48	55
30.411	Ray Short		46.14	17	+ .20	47.39	10	- 1.25	50.67	9	- 3.28	52.38	6	- 1.71	53.76	7	- 1.38	- 7.42	46.14	51	53.76	55	49	
31.311	O. A. Payton		48.45	17	- .93	50.20	8	- 1.75	51.47	9	- 1.27	53.20	15	- 1.73	54.22	7	- 1.02	- 6.70	47.35	48	54.22	55	48	
31.423	W. G. Turnipseed		54.74	17	- 3.39	b61.81	8	- 7.07	60.73	9	-	59.37	6	+ 1.36	59.58	7	- .21	- 8.23	51.05	49	60.73	53	49	
32.323	Hobdy Gann		b59.74	19	- 5.87	58.21	8	-	59.34	9	- 1.13	60.99	13	- 1.65	60.73	7	+ .26	- 6.86	53.60	49	60.99	54	49	
33.211	Spencer Nymeyer		59.38	19	- 3.49	60.62	8	- 1.24	65.50	9	- 4.88	72.54	15	- 7.04	68.74	7	+ 3.80	-12.85	49.14	47	72.54	54	47	
34.111	Fred Nymeyer		52.47	18	- 4.45	54.32	8	- 1.85	57.72	13	- 3.40	60.19	5	- 2.47	59.84	7	+ .35	-11.80	44.12	48	60.19	54	48	
15.37. 4.113	Fred D. Harkey		38.31	19	- 1.21	39.90	11	- 1.59	42.10	14	- 2.20	45.07	6	- 2.97	46.83	8	- 1.76	- 9.73	37.10	50	46.83	55	50	
7.111	D. H. Crockett		47.39	19	- 1.26	49.09	9	- 1.70	51.71	14	- 2.62	53.82	6	- 2.11	56.19	11	- 2.37	-10.06	46.13	50	56.19	55	50	
10.113	W. A. Simpson		35.73	19	- .58	36.59	12	- .86	-	-	-	-	-	-	(i)			-	34.66	45	36.63	39	38	40-43,44-53,54

See footnotes at end of table.

TABLE 7. -- continued

Location Number	Name	Source	WATER LEVELS																Highest		Lowest		Record	
			1951 January		Change 1950-51	1952 January		Change 1951-52	1953 January		Change 1952-53	1954 January		Change 1953-54	1955 January		Change 1954-55	Change 1950-55					Began	Years Missing
			Level	Day		Level	Day		Level	Day		Level	Day		Level	Day			Level	Year	Level	Year		
15.37.19.311	Otto Dean		(a)	-	-	41.75	10	-	(a)	-	-	46.96	6	-	48.92	8	- 1.96	- 7.83	41.09	50	48.92	55	48	51,53
20.221	J. E. Steele		37.38	19	- 2.08	39.11	10	- 1.73	41.19	13	- 2.08	44.10	5	- 2.91	45.97	8	- 1.87	-10.67	35.30	50	45.97	55	49	
21.334	R. W. Dean		a39.13	19	- 7.12	a41.35	10	- 2.22	42.33	13	- .98	46.07	6	- 3.74	48.50	8	- 2.43	-16.49	29.20	45	48.50	55	31	49
23.112	Nellie Fort		35.59	19	-	36.28	10	- .69	37.33	13	- 1.05	38.22	5	- .89	38.94	8	- .72	-	35.59	51	38.94	55	51	
27.111	C. L. Naul		36.46	19	- 2.58	39.02	10	- 2.56	44.18	13	- 5.16	47.56	5	- 3.38	47.60	8	- .04	-13.72	29.38	43	47.60	55	42	45
28.111	E. T. Wilks		32.73	19	- 2.46	35.69	10	- 2.96	40.04	13	- 4.35	43.82	6	- 3.78	46.41	8	- 2.59	-16.14	30.27	50	46.41	55	50	
29.111	do.		39.08	19	-	41.11	10	- 2.03	43.75	13	- 2.64	46.12	6	- 2.37	48.29	8	- 2.17	-	39.06	51	48.29	55	51	
31.132	W. R. Dean		39.32	18	- 4.28	39.52	10	- .20	43.29	13	- 3.77	43.97	15	- .68	46.61	8	- 2.64	-11.57	35.04	50	46.61	55	49	
33.313	E. B. Yarbro		39.64	16	- 3.67	42.42	10	- 2.78	48.21	13	- 5.79	52.37	5	- 4.16	55.32	4	- 2.95	-19.35	35.97	50	55.32	55	50	
34.133	O. S. Bigham		32.14	19	- 1.50	33.99	10	- 1.85	36.42	13	- 2.43	39.18	5	- 2.76	41.65	8	- 2.47	-11.01	30.64	50	41.65	55	49	
15.38.10.321	Brady Lowe		31.84	19	-	32.40	10	- .56	34.11	13	- 1.71	35.57	5	- 1.46	35.21	4	+ .36	-	31.84	51	35.57	54	51	
22.441	Troy C. Fort		32.93	19	- .72	32.71	10	+ .22	33.76	13	- 1.05	(a)	-	-	34.42	4	-	- 2.21	28.72	42	34.42	55	40	54
35.133	J. W. Waits		38.96	19	- 1.35	38.49	10	+ .47	40.91	13	- 2.42	41.45	5	- .54	41.73	4	- .28	- 4.12	37.61	50	41.73	55	50	
16.35.13.112	W. T. Zuber		44.17	16	- .71	45.47	8	- 1.30	47.53	9	- 2.06	48.95	13	- 1.42	49.77	7	- .82	- 6.31	43.38	49	49.77	55	49	
24.111	T. G. Hester		44.09	16	-	45.33	8	- 1.24	47.46	9	- 2.13	49.71	13	- 2.25	50.29	7	- .58	-	44.09	51	50.29	55	51	
26.211	Homer Youngblood		37.66	16	- .76	40.45	8	- 2.79	39.94	9	+ .51	41.02	13	- 1.08	41.95	7	- .93	- 5.05	35.37	49	41.95	55	49	
16.36. 1.431	Lorene Easley		41.43	19	- .33	44.82	7	- 3.39	49.74	13	- 4.92	50.53	5	- .79	50.68	4	- .15	- 9.58	39.65	45	50.68	55	39	
4.L2	W. L. Barbee		50.20	17	- 1.41	51.28	7	- 1.08	53.67	9	- 2.39	55.52	15	- 1.85	56.34	7	- .82	- 7.55	46.59	47	56.34	55	47	
4.L12	E. H. Byers		49.35	16	- 1.67	51.30	7	- 1.95	53.33	16	- 2.03	55.30	13	- 1.97	56.54	7	- 1.24	- 8.86	k43.50	43	56.54	55	35	
5.L10	Mrs. Mary Coxey		51.03	16	- 1.26	53.36	8	- 2.33	55.12	9	- 1.76	56.56	13	- 1.44	56.93	7	- .37	- 7.16	44.53	42	56.93	55	40	48
5.L14	W. B. Phillips		54.38	16	- 2.09	58.11	8	- 3.73	59.57	9	- 1.46	60.71	13	- 1.14	59.94	7	+ .77	- 7.65	45.23	42	60.71	54	39	
5.L15	I. D. Phillips		52.82	16	- 1.71	55.85	8	- 3.03	57.85	9	- 2.00	59.15	13	- 1.30	58.90	7	+ .25	- 7.79	50.09	48	59.15	54	48	
5.321	Floyd Greer		54.43	16	- 2.59	57.22	7	- 2.79	59.70	9	- 2.48	60.31	13	- .61	60.18	7	+ .13	- 8.34	44.81	42	60.31	54	39	
5.411	Mrs. E. J. Robinson		56.42	16	- 2.49	59.77	7	- 3.35	62.22	9	- 2.45	62.91	13	- .69	62.24	7	+ .67	- 8.31	45.72	42	62.91	54	39	
8.211	H. W. Gillette		59.80	21	- 3.65	61.48	8	- 1.68	62.34	9	- .86	63.40	13	- 1.06	62.54	7	+ .86	- 6.39	53.67	48	63.40	54	48	
10.123	Ed Carr		61.08	16	- 2.69	62.41	7	- 1.33	68.48	14	- 6.07	70.40	7	- 1.92	c74.01	4	- 3.61	-15.62	57.89	49	c74.01	55	49	
10.233	J. E. Simmons		58.72	16	- 2.82	61.53	7	- 2.81	69.93	17	- 8.40	68.36	5	+ 1.57	68.97	4	- .61	-13.07	50.22	42	69.93	53	40	
11.133	C. G. Hudgens		56.94	16	- 3.59	58.19	7	- 1.25	68.91	12	-10.72	70.97	5	- 2.06	71.58	4	- .61	-18.23	50.71	48	71.58	55	48	
11.232	Lorene Easley		65.48	16	- 8.16	64.75	7	+ .73	68.35	12	- 3.60	(a)	-	-	(a)	-	-	-	53.97	48	68.35	53	48	54,55
15.240	I. E. Collier		53.72	16	- 1.06	56.33	7	- 2.61	-	-	-	(i)						-	46.72	43	56.33	52	39	53
17.133	B. L. Hobbs		53.90	16	- .64	55.05	8	- 1.15	56.72	9	- 1.67	58.01	13	- 1.29	58.53	7	- .52	- 5.27	53.15	49	58.53	55	49	
19.111	George Spires		48.06	16	- .97	51.00	8	- 2.94	53.59	9	- 2.59	53.32	13	+ .27	53.43	7	- .11	- 6.34	46.58	49	53.59	53	49	
23.240	T. H. Monteith											47.06	7	-	46.68	5	+ .38	-	46.68	55	47.06	54	54	
16.37. 1.311	H. W. Wilks		37.02	16	- 2.03	39.19	6	- 2.17	43.97	13	- 4.78	46.25	5	- 2.28	50.28	4	- 4.03	-15.29	34.99	50	50.28	55	50	
2.L4	Ugi Harada		42.68	16	- 4.35	44.76	6	- 2.08	51.14	12	- 6.38	53.12	5	- 1.98	55.88	4	- 2.76	-17.55	38.33	50	55.88	55	50	
7.114	O. Moore		b39.91	16	- 1.59	41.54	6	- 1.63	41.40	12	+ .14	44.04	5	- 2.64	45.33	4	- 1.29	- 7.01	38.32	50	45.33	55	50	
11.111	A. J. Berkshire		(a)	-	-	40.67	6	-	47.26	12	- 6.59	52.13	5	- 4.87	53.80	4	- 1.67	-19.82	31.93	49	53.80	55	49	51
14.211	do.		41.81	16	- 2.08	44.31	6	- 2.50	47.71	13	- 3.40	55.00	5	- 7.29	55.76	4	- .76	-16.03	39.73	50	55.76	55	50	
24.431	R. L. Robinson		40.89	20	- 4.80	42.55	6	- 1.66	44.91	8	- 2.36	(i)						-	35.90	49	44.91	53	48	
24.431a	do.								45.01	8	-	47.27	5	- 2.26	47.24	4	+ .03	-	45.01	53	47.27	54	53	
25.111	Richard M. King		38.97	20	- 2.10	39.18	6	- .21	42.70	8	- 3.52	43.16	5	- .46	42.81	4	+ .35	- 5.94	36.87	50	43.16	54	50	
33.122	Elbert Shipp		29.47	20	- .13	30.51	8	- 1.04	(1)									-	27.48	42	30.63	41	39	47,48
16.38. 3.333	State of New Mexico											24.93	5	-	25.03	4	- .10	-	24.93	54	25.03	55	54	
25.144	J. S. & Rose Evans		35.33	20	- 1.03	36.41	6	- 1.08	38.73	8	- 2.32	41.01	7	- 2.28	40.88	5	+ .13	- 6.58	31.90	42	41.01	54	41	
26.111	O. A. Woody		-	-	-	39.72	6	-	45.44	8	- 5.72	-	-	-	52.89	4	-	-17.55	35.34	50	52.89	55	50	51,54
26.113	do.											51.77	7	-	55.90	4	- 4.13	-	51.77	54	55.90	55	54	
27.111	do.		34.83	20	- 1.94	37.40	6	- 2.57	42.25	8	- 4.85	46.12	7	- 3.87	51.29	4	- 5.17	-18.40	32.89	50	51.29	55	50	
30.211	R. E. Battles		36.82	20	-	37.65	6	- .83	43.22	8	- 5.57	45.67	5	- 2.45	45.17	4	+ .50	-	36.82	51	45.67	54	51	
34.131	Ralph Moe		40.41	20	- 2.18	41.89	6	- 1.48	c67.43	8	-25.54	51.08	7	-	51.20	4	- .12	-12.97	35.39	47	51.20	55	47	
35.110	O. A. Woody		43.68	20	- 4.80	a41.33	6	-	(a)	-	-	(i)						-	34.02	44	43.68	51	40	53
35.440												59.23	7	-	(h,i)			-	-	-	-	-	54	
16.39.20.131	O. D. Ferguson		35.75	20	- 1.41	36.71	6	- .96	39.54	8	- 2.83	42.30	7	- 2.76	43.27	4	- .97	- 8.93	32.47	48	43.27	55	48	
29.L2	L. E. Sims & L. J. Holder		55.82	20	- .97	56.64	6	- .82	59.16	8	- 2.52	60.61	7	- 1.45	60.62	4	- .01	- 5.77	54.85	50	60.62	55	50	
17.33.13.341	Potash Company of America								146.39	8	-	c148.32	11	- 2.33	150.36	6	- 1.64	-	146.39	53	150.36	55	53	
13.433	do.		155.16	21	+ 3.68	160.24	4	- 5.08	(Incorrect designation used previously for well 17.33.13.434, which see.)															
13.434	do.								160.26	8	- .02	a188.60	11	-	160.88	6	-	- 2.04	c144.24	49	160.88	55	49	
26.422	Phillips Petroleum Company		160.56	21	-	160.68	4	- .12	161.11	8	- .43	161.30	11	- .19	161.81	6	- .51	-	160.56	51	161.81	55	51	
17.34.21.143	Duval Sulphur & Potash Co.		112.71	21	-	-	-	-	121.99	8	-	123.63	11	- 1.64	b122.21	6	+ 1.42	-	112.71	51	123.63	54	51	52
35.130	Phillips Petroleum Company		89.93	21	+ .03	89.95	4	- .02	89.88	7	+ .07	90.05	11	- .17	90.18	6	- .13	- .22	89.88	53	91.98	41	41	
17.35.35.213	do.		39.13	21	- .03	39.26	4	- .08	39.48	7	- .22	39.63	11	- .15	39.79	6	- .16	- .69	38.60	48	41.45	41	41	
17.36. 3.333	State of New Mexico		42.33	21	+ .09	42.44	5	- .11	42.66	7	- .22	43.09	11	- .43	42.78	7	+ .31	- .36	42.02	44	44.29	41	39	
27.131	Fred Turner		33.51	21	- .20	33.71	5	- .20	34.03	7	- .32	34.61	11	- .58	34.52	6	+ .09	- 1.21	33.05	49	34.61	54	48	

See footnotes at end of table.

TABLE 7. -- continued

Location Number	Name	Source	WATER LEVELS																		Record	
			1951		Change 1950-51	1952		Change 1951-52	1953		Change 1952-53	1954		Change 1953-54	1955		Change 1954-55	Change 1950-55	Highest		Lowest		Began	Years Missing
			January			January			January			January			January				Level	Year	Level	Year		
			Level	Day		Level	Day		Level	Day		Level	Day		Level	Day								
17.37.10.211			35.64	20	- 2.22	39.30	5	- 3.66	41.70	6	- 2.40	42.35	7	- .65	42.40	5	- .05	- 8.98	32.87	49	42.40	55	49	
12.113	Lee Stiles		42.51	20	- 1.82	43.42	5	- .91	45.55	6	- 2.13	48.00	7	- 2.45	49.19	5	- 1.19	- 8.50	40.69	50	49.19	55	50	
13.312	John Catchings		31.63	20	+ .40	32.42	5	- .79	34.75	6	- 2.33	35.89	7	- 1.14	37.72	5	- 1.83	- 5.89	26.05	44	37.72	55	39	
26.333	O. M. Redding		32.88	22	- 1.58	35.00	5	- 2.12	36.51	6	- 1.51	37.48	13	- .97	37.94	5	- .46	- 6.64	26.21	43	37.94	55	38	
34.411	Dr. Peters											37.77	13	-	39.39	5	- 1.62	-	37.77	54	39.39	55	54	
34.441	do.		28.60	22	- .89	29.49	5	- .89	-	-	-	(i)						-	24.60	43	29.49	52	41	53
17.38. 2.311	O. & G. W. Hickerson		43.65	20	+ .72	44.23	5	- .58	45.87	8	- 1.64	44.40	7	+ 1.47	43.80	4	+ .60	+ .57	43.65	51	45.87	53	49	
7.111	Jim Cunningham		34.17	20	- 1.39	(i)												-	32.78	50	34.17	51	50	
7.111a	do.					35.94	5	-	39.41	6	- 3.47	43.64	7	- 4.23	44.70	5	- 1.06	-	35.94	52	44.70	55	52	
8.211	J. J. Handley, Jr.		38.17	20	- 1.71	39.46	5	- 1.29	42.82	6	- 3.36	46.60	7	- 3.78	46.50	5	+ .10	-10.04	36.46	50	46.60	54	50	
8.331	G. W. Brown		32.88	20	-	34.35	5	- 1.47	37.38	6	- 3.03	40.49	7	- 3.11	39.82	5	+ .67	-	32.88	51	40.49	54	51	
23.111			36.64	20	- .36	36.99	5	- .35	37.43	6	- .44	39.67	7	- 2.24	38.43	5	+ 1.24	- 2.15	36.01	49	39.67	54	49	
24.133	R. M. King		41.45	20	- .15	42.94	5	- 1.49	44.77	6	- 1.83	45.33	7	- .56	44.68	5	+ .65	- 3.38	41.30	50	45.33	54	50	
27.133	W. E. Manning		28.12	22	- .38	28.40	5	- .28	28.97	6	- .57	30.35	13	- 1.38	28.87	5	+ 1.48	- 1.13	25.55	47	30.35	54	46	
30.113	W. H. Martin		c31.75	22	- 2.25	32.08	5	- .33	34.47	6	- 2.39	36.03	13	- 1.56	36.04	5	- .01	- 6.54	23.97	42	36.04	55	38	
30.312	Mrs. W. L. Goedeke		32.82	22	- 1.23	33.95	5	- 1.13	35.99	6	- 2.04	(i)						-	26.47	42	35.99	53	30	
31.311	G. L. Beene		29.14	22	- .88	33.06	6	- 3.92	34.05	6	- .99	35.91	13	- 1.86	35.75	5	+ .16	- 7.49	26.71	49	35.91	54	49	
34.113	W. E. Busby		27.32	22	+ .35	27.96	6	- .64	28.59	6	- .63	29.51	7	- .92	29.43	5	+ .08	- 1.76	24.78	44	29.51	54	44	
36.212	R. M. King		65.19	20	- 5.59	68.76	5	- 3.57	71.35	6	- 2.59	72.19	7	- .84	67.30	5	+ 4.89	- 7.70	59.60	50	72.19	54	50	
17.39.32.111	do.		74.17	20	- 1.25	76.19	5	- 2.02	77.35	6	- 1.16	78.88	7	- 1.53	77.94	5	+ .94	- 5.02	72.92	50	78.88	54	50	
18.35.17.144	Intl.Minerals & Chemical Corp.											69.50	11	-	69.52	6	- .02	-	69.50	54	69.52	55	54	
20.144	do.											75.77	11	-	75.81	6	- .04	-	75.77	54	75.81	55	54	
20.214	do.											72.25	11	-	72.23	6	+ .02	-	72.23	55	72.25	54	54	
18.36.27.111	State of New Mexico		40.43	21	- .22	40.54	5	- .11	40.76	7	- .22	40.99	11	- .23	41.16	6	- .17	- .95	38.13	43	41.66	41	39	
18.38. 2.131	Sam Dalmont		28.93	20	-	30.08	4	- 1.15	31.25	6	- 1.17	32.40	8	- 1.15	(f,i)			-	27.20	43	32.40	54	39	50
3.313	H. E. Teague					29.68	4	-	31.23	6	- 1.55	32.68	7	- 1.45	33.21	5	- .53	-	29.68	52	33.21	55	52	
4.232	J. R. Isaacs Estate		24.28	22	+ .56	(h,i)												-	22.17	43	25.59	40	30	
14.110	Ben Gamblin											32.97	7	-	33.51	5	- .54	-	32.97	54	33.51	55	54	
15.241	Glenn Staley		29.57	20	+ .18	32.73	4	- 3.16	34.72	6	- 1.99	38.63	8	- 3.91	36.36	5	+ 2.27	- 6.61	26.77	43	38.63	54	40	
19.413	Carl Dennison		25.05	20	-	a37.30	4	-12.25	29.67	7	-	30.55	13	- .88	29.18	5	+ 1.37	-	24.37	49	30.55	54	49	
22.411	S. C. Albertson		j38.02	20	- .53	40.74	4	- 2.72	42.95	6	- 2.21	44.36	8	- 1.41	45.16	5	- .80	- 7.67	34.43	43	45.16	55	40	
22.433	Glenn Staley		41.98	20	- .23	43.74	4	- 1.76	45.46	6	- 1.72	45.99	7	- .53	48.53	5	- 2.54	- 6.78	41.23	49	48.53	55	49	
26.343	L. V. Pribble		50.26	20	- 1.53	52.19	4	- 1.93	56.94	6	- 4.75	(h,i)						-	40.30	43	56.94	53	40	
27.113	City of Hobbs														44.00	5	-	-	-	-	-	-	55	
30.200			(Incorrect designation used previously for well 18.38 30.223, which see.)																					
30.223	Mrs. Sadie Davis		23.79	20	+ .06	24.56	4	- .77	24.70	7	- .14	25.01	13	- .31	26.29	5	- 1.28	- 2.44	23.19	48	27.56	31	31	
19.35.13.412	B. E. Hughes		18.36	21	- .28	18.44	3	- .08	18.66	7	- .22	18.89	11	- .23	18.45	6	+ .44	- .37	18.08	50	18.89	54	50	
24.222	F. K. Turner		19.90	21	- .53	19.98	3	- .08	20.18	7	- .20	20.37	11	- .19	20.25	6	+ .12	- .88	17.78	47	20.38	41	39	
19.36.19.113	L. S. Evans Estate		j16.73	21	- .71	16.84	3	- .11	17.13	7	- .29	17.10	11	+ .03	17.13	6	- .03	- 1.11	15.06	47	17.93	41	39	
19.411	F. K. Turner		16.55	21	- .06	16.51	3	+ .04	16.58	7	- .07	16.49	11	+ .09	16.53	6	- .04	- .04	16.35	47	16.59	49	42	
32.111	do.		16.92	21	- .36	16.94	3	- .02	17.14	7	- .20	17.21	11	- .07	17.20	6	+ .01	- .64	15.15	42	18.60	40	39	
19.37. 1.231	Hobbs Country Club		26.03	21	- .83	26.84	4	- .81	a56.58	7	-29.74	27.20	13	-	26.49	5	+ .71	- 1.29	24.75	47	27.20	54	45	
32.241	Mrs. E. A. Anderson		12.25	21	- .06	12.32	7	- .07	12.21	7	+ .11	12.26	8	- .05	12.19	6	+ .07	.00	11.50	33	12.34	49	30	
32.241a	do.		12.25	21	- .05	12.24	7	+ .01	12.20	7	+ .04	a12.82	8	- .62	a12.35	6	+ .47	-	12.20	50	12.30	48	48	
19.38. 2.122	Perry Lamar		53.77	22	- 1.15	57.63	3	- 3.86	60.28	6	- 2.65	61.24	8	- .96	61.78	12	- .54	- 9.16	43.59	42	61.78	55	40	
2.242	Bert Dodson		45.49	22	+ .84	48.17	3	- 2.68	52.04	6	- 3.87	49.90	8	+ 2.14	47.18	12	+ 2.72	- .85	44.38	42	52.04	53	41	
2.424	A. C. Cheser		39.30	22	- 3.71	41.65	3	- 2.35	41.87	6	- .22	43.29	13	- 1.42	37.50	12	+ 5.79	+ 5.51	37.50	55	46.54	41	41	42,48
34.222	Collins Walker		43.03	22	- .31	44.63	3	- 1.60	46.07	6	- 1.44	47.80	8	- 1.73	48.00	12	- .20	- 5.28	42.27	49	48.00	55	49	
20.35. 1.221	do.		22.54	21	- .72	23.26	3	- .72	24.07	7	- .81	24.62	11	- .55	24.98	6	- .36	- 3.16	19.70	44	25.63	41	30	
20.37. 9.110	W. H. Laughlin		31.23	21	- .23	32.12	3	- .89	33.04	7	- .92	33.38	8	- .34	32.60	6	+ .78	- 1.60	27.18	43	42.40	38	30	36,37
9.110a	do.		(i)															-	26.36	43	37.12	41	41	
20.38.12.244												43.61	8	-	43.12	12	+ .49	-	43.12	55	43.61	54	54	
20.39. 7.133												43.50	8	-	43.03	12	+ .47	-	43.03	55	43.50	54	54	
18.344												46.08	8	-	45.27	12	+ .81	-	45.27	55	46.08	54	54	

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
f. Dry.
h. Well destroyed, filled, or caved.
i. Measurement discontinued.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder chart.
s. March.
w. Also 1953.

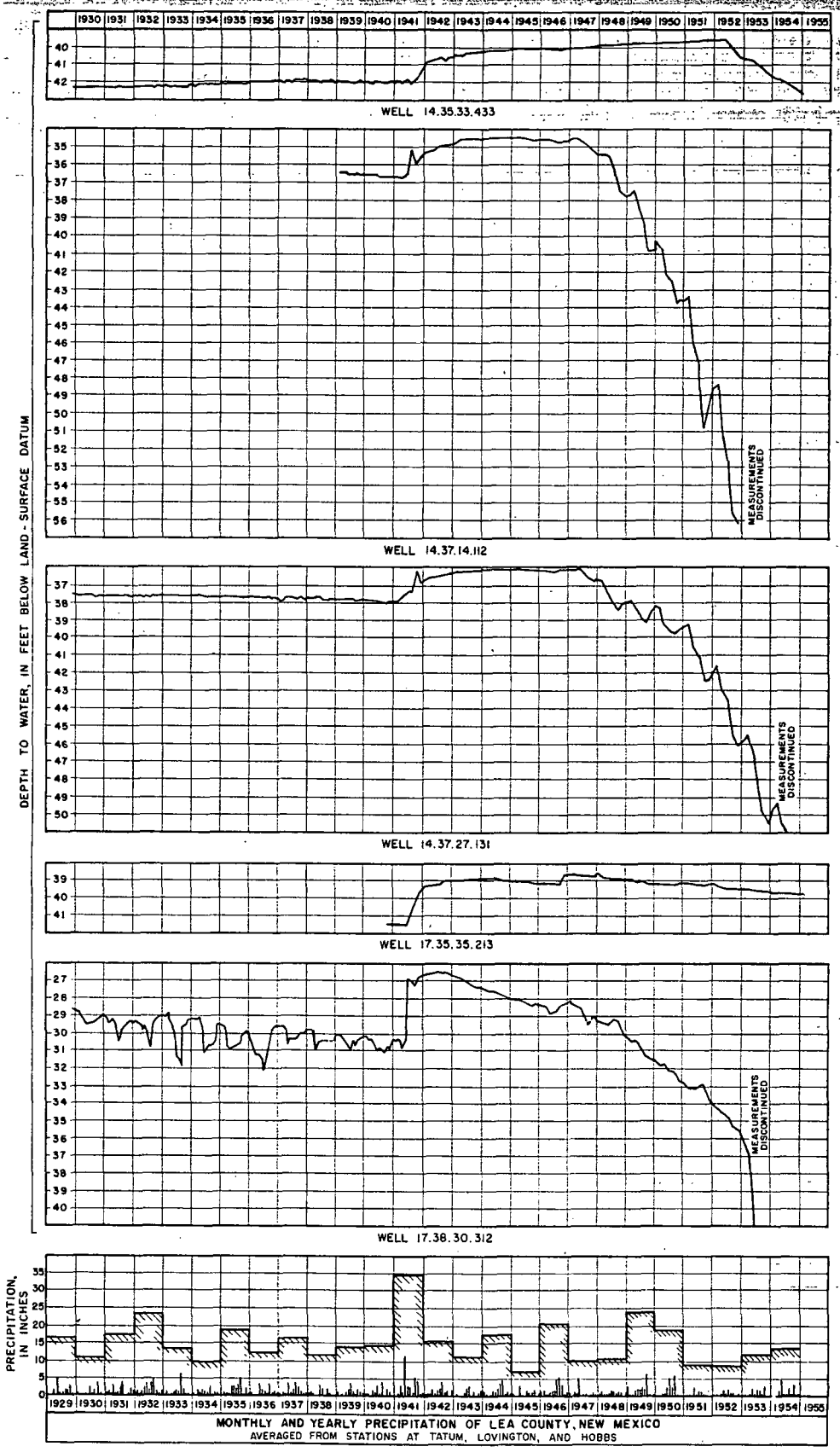


FIGURE 46. -- Graphs showing fluctuations of water levels in five representative wells, and precipitation in Lea County, N. Mex., 1929-1954.

ATLAS OF MAPS OF CHANGES OF WATER LEVEL

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Figure 47. Change of ground-water level in Tatum-Lovington-Hobbs area of High Plains, Lea County, N. Mex., from January 1948 to January 1949 107

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55. .....from January 1950 to January 1955 115

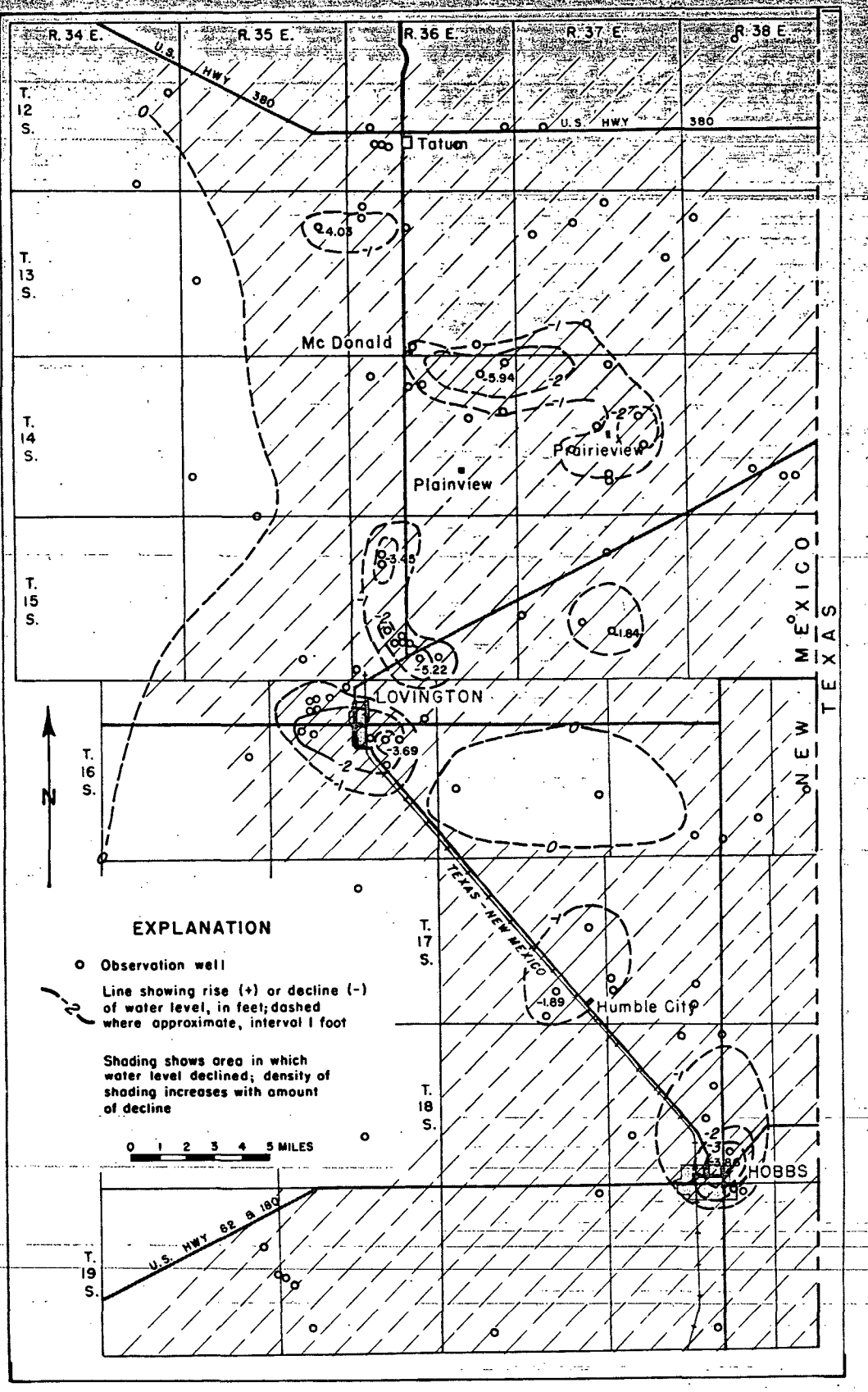


FIGURE 47. -- Change of ground-water level in Tatum-Lovington-Hobbs area of High Plains, Lea County, N. Mex., January 1948 to January 1949.

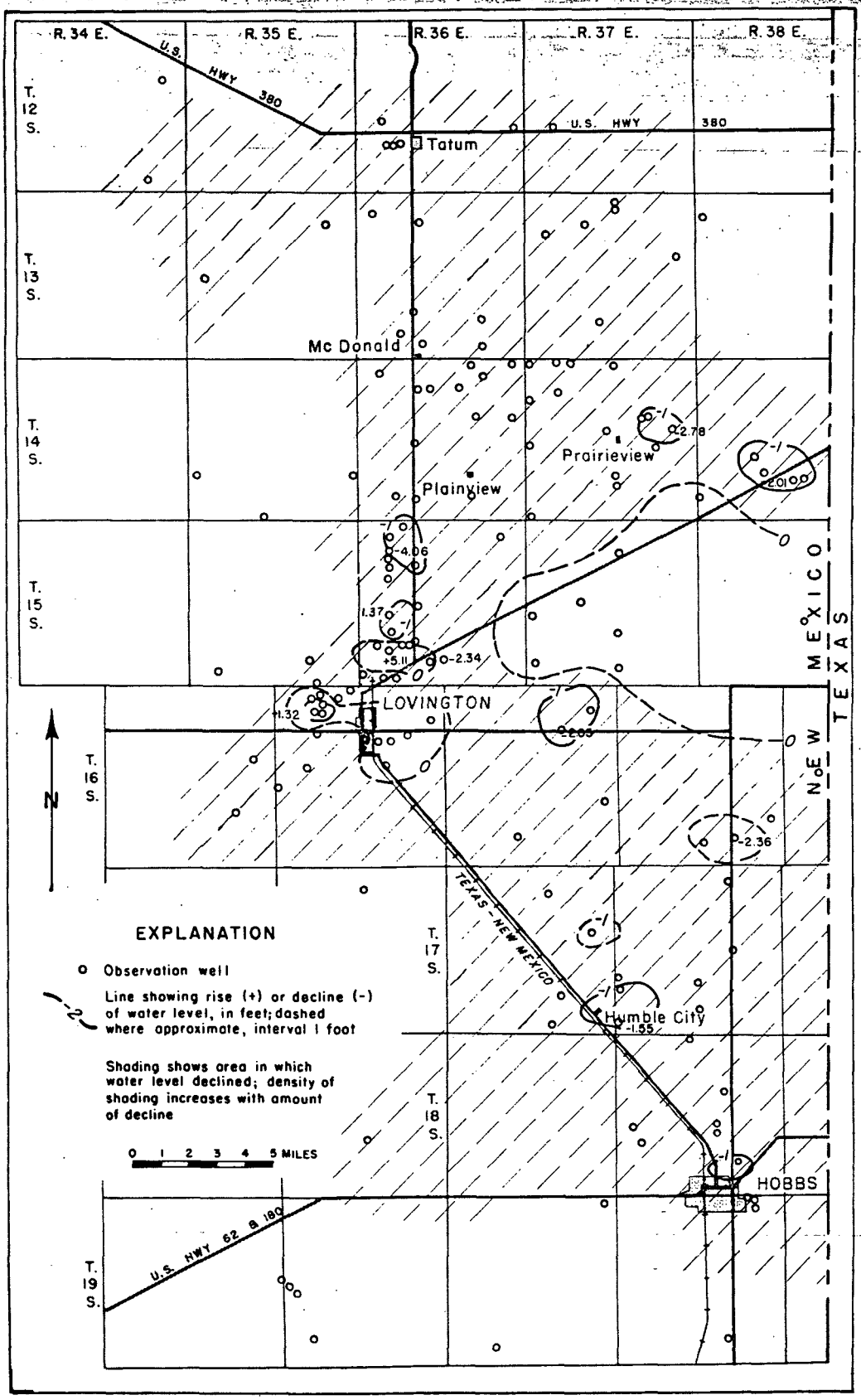


FIGURE 48. -- Change of ground-water level in Tatum-Lovington-Hobbs area of High Plains, Lea County, N. Mex., January 1949 to January 1950.

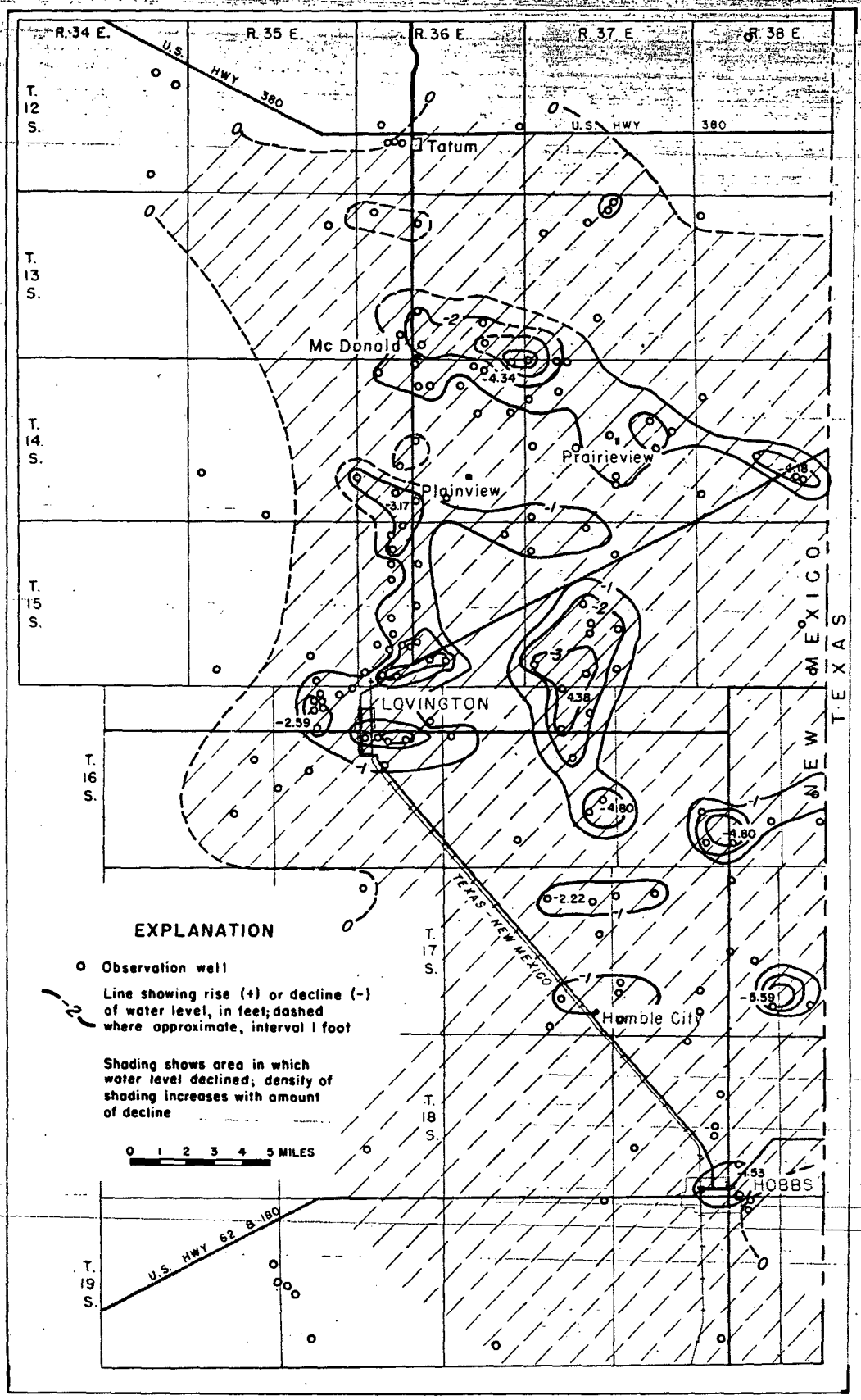


FIGURE 49. -- Change of ground-water level in Tatum-Lovington-Hobbs area of High Plains, Lea County, N. Mex., January 1950 to January 1951.

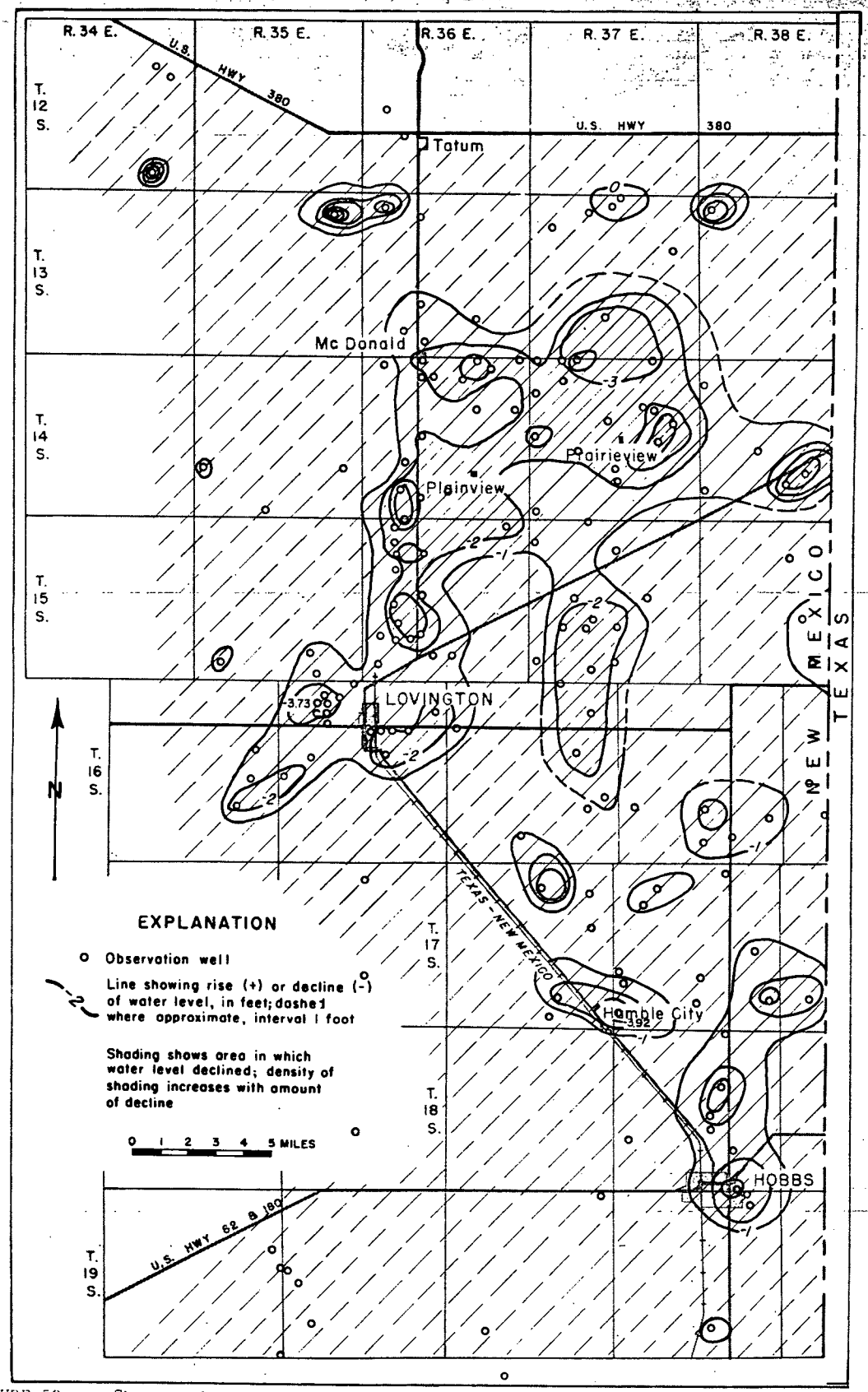


FIGURE 50. -- Change of ground-water level in Tatum-Lovington-Hobbs area of High Plains, Lea County, N. Mex., January 1951 to January 1952.

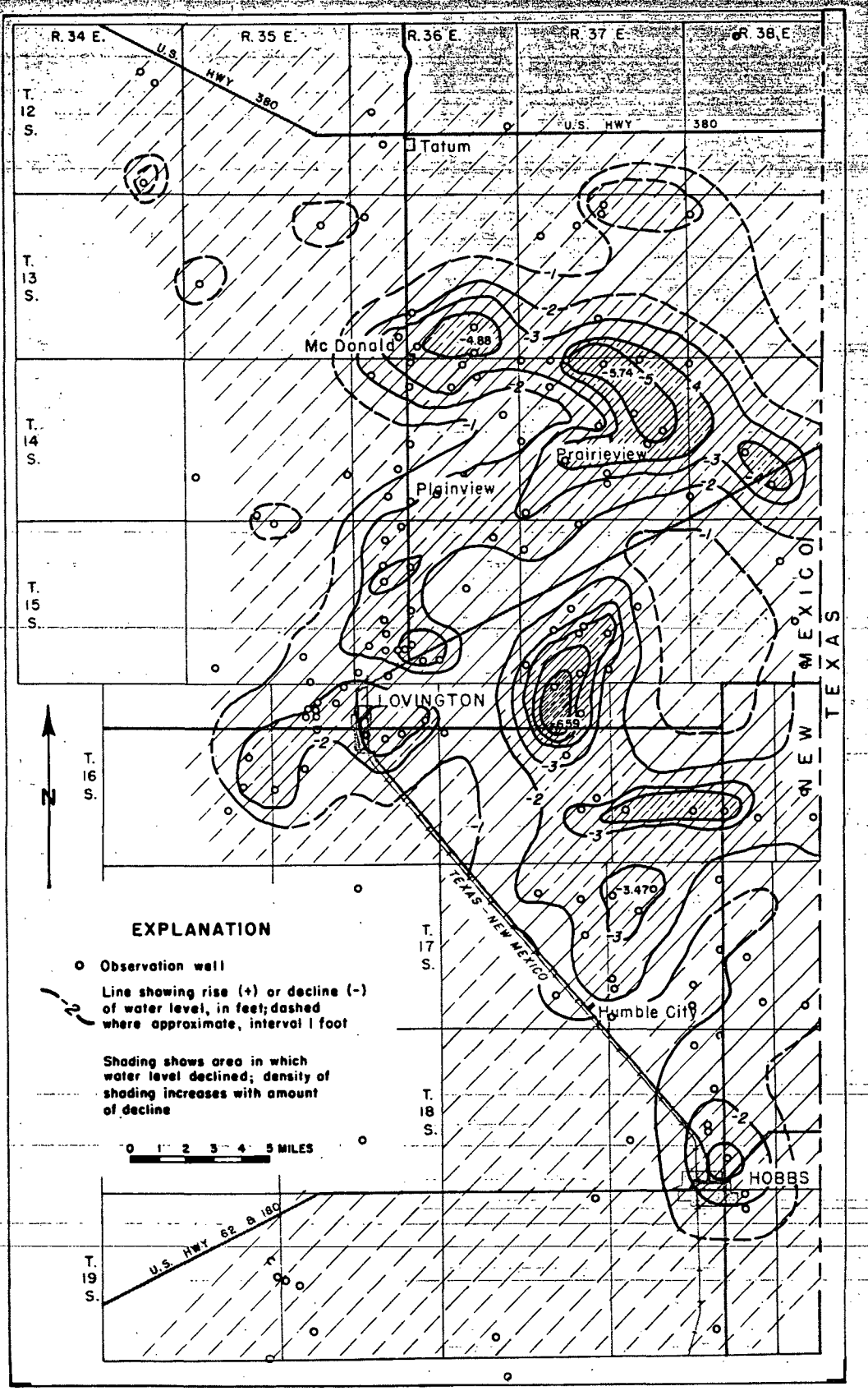


FIGURE 51. -- Change of ground-water level in Tatum-Lovington-Hobbs area of High Plains, Lea County, N. Mex., January 1952 to January 1953.

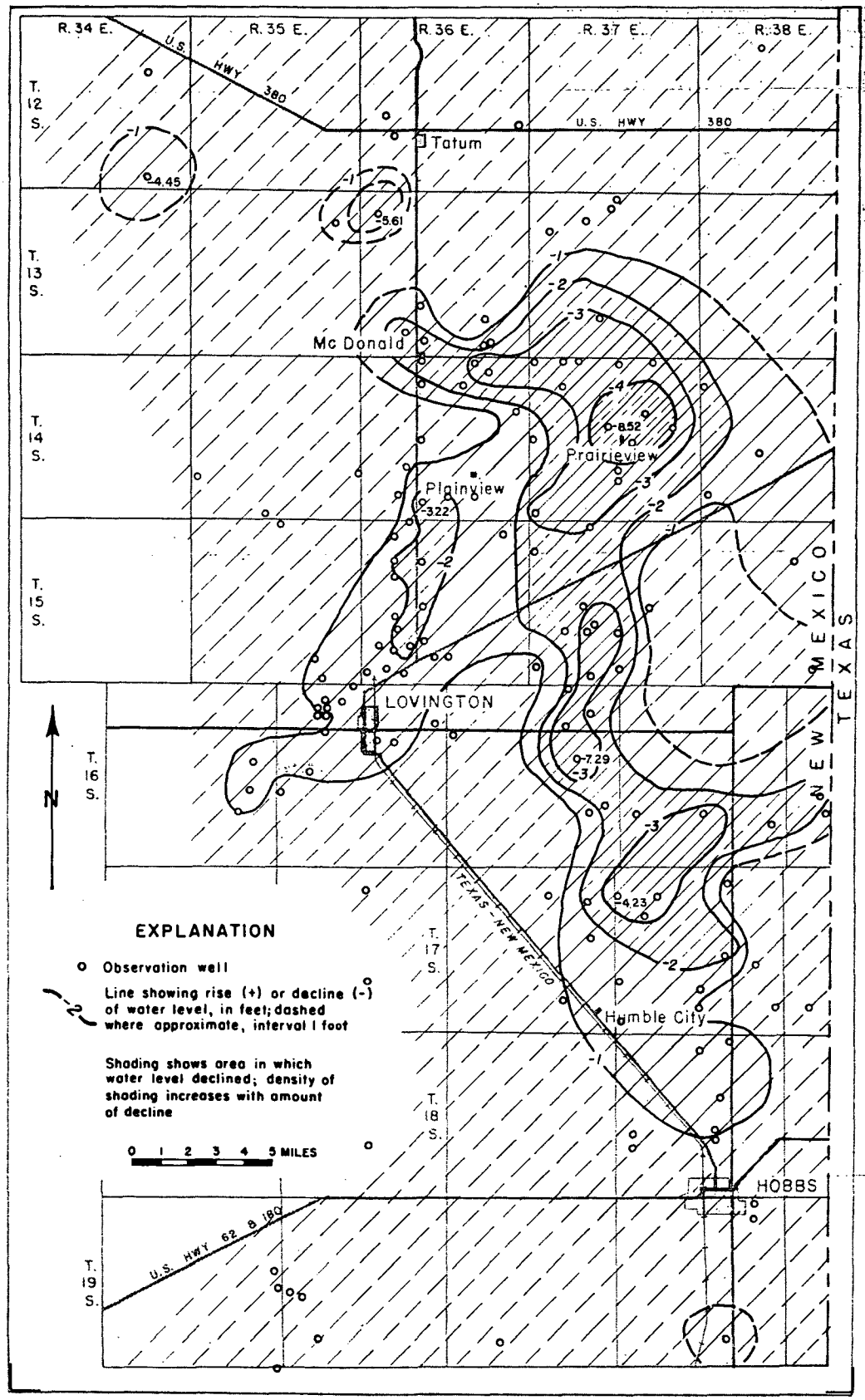


FIGURE 52. -- Change of ground-water level in Tatum-Lovington-Hobbs area of High Plains, Lea County, N. Mex., January 1953 to January 1954.

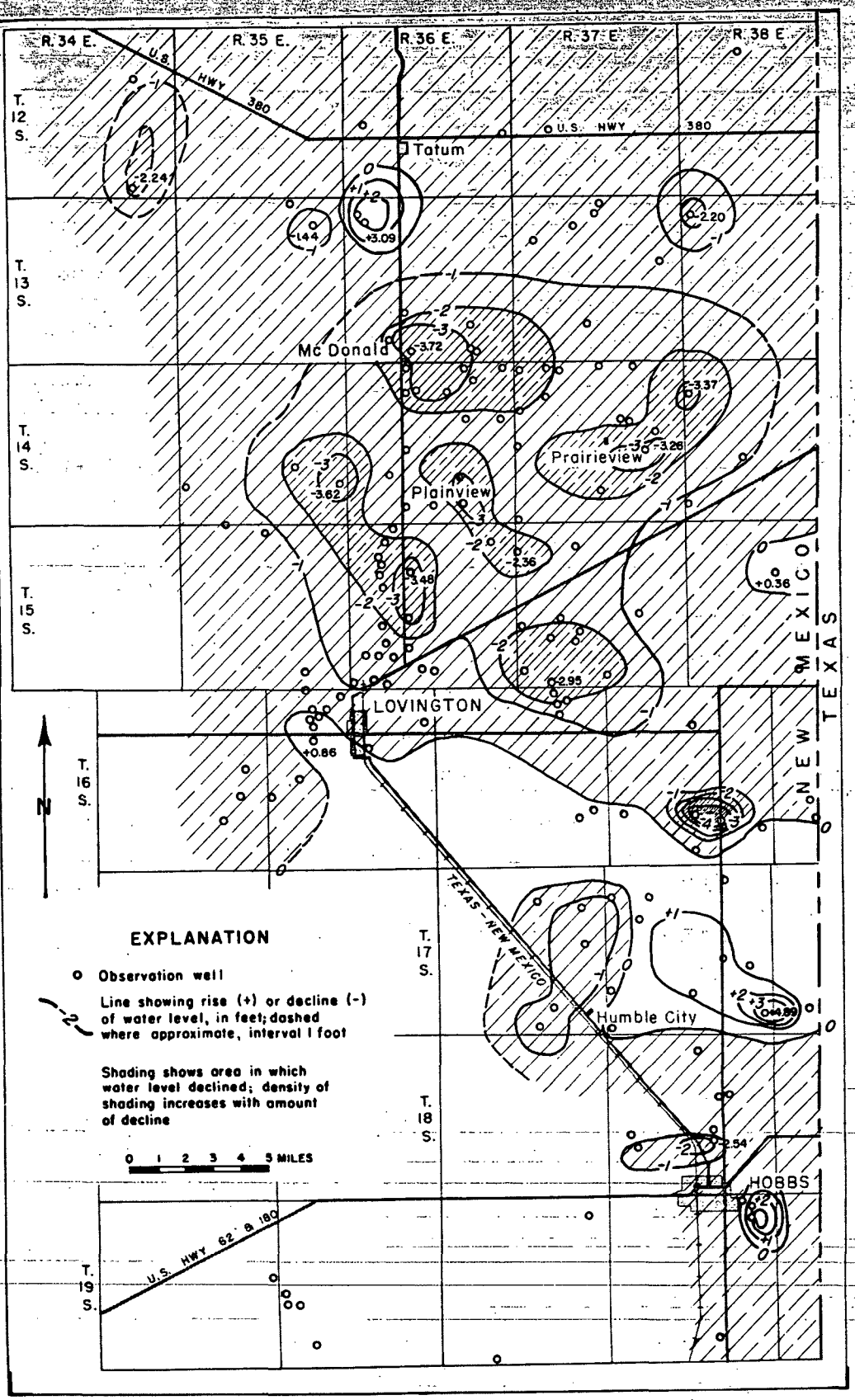


FIGURE 53. -- Change of ground-water level in Tatum-Lovington-Hobbs area of High Plains, Lea County, N. Mex., January 1954 to January 1955.

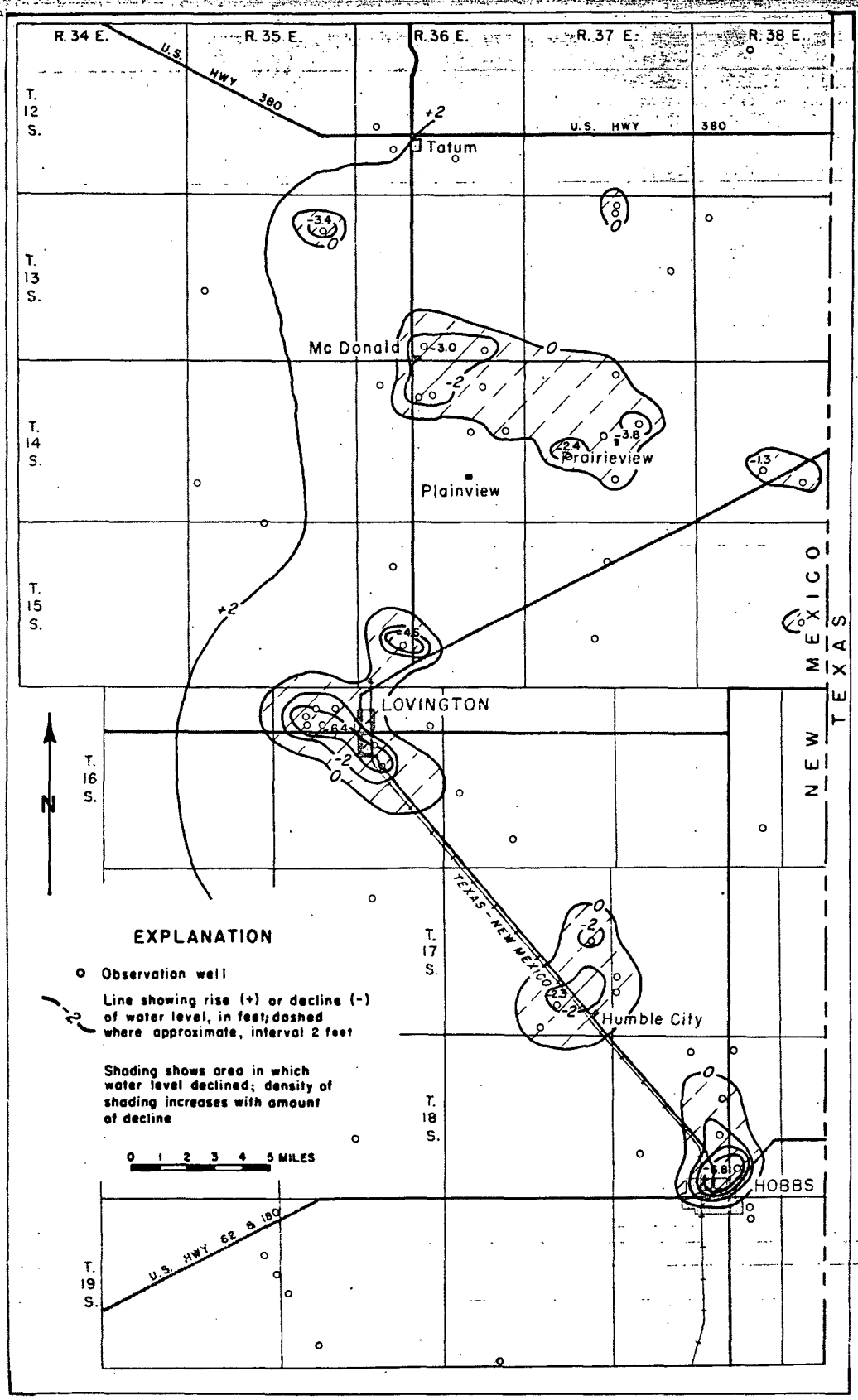


FIGURE 54. -- Change of ground-water level in Tatum-Lovington-Hobbs area of High Plains, Lea County, N. Mex., January 1940 to January 1950.

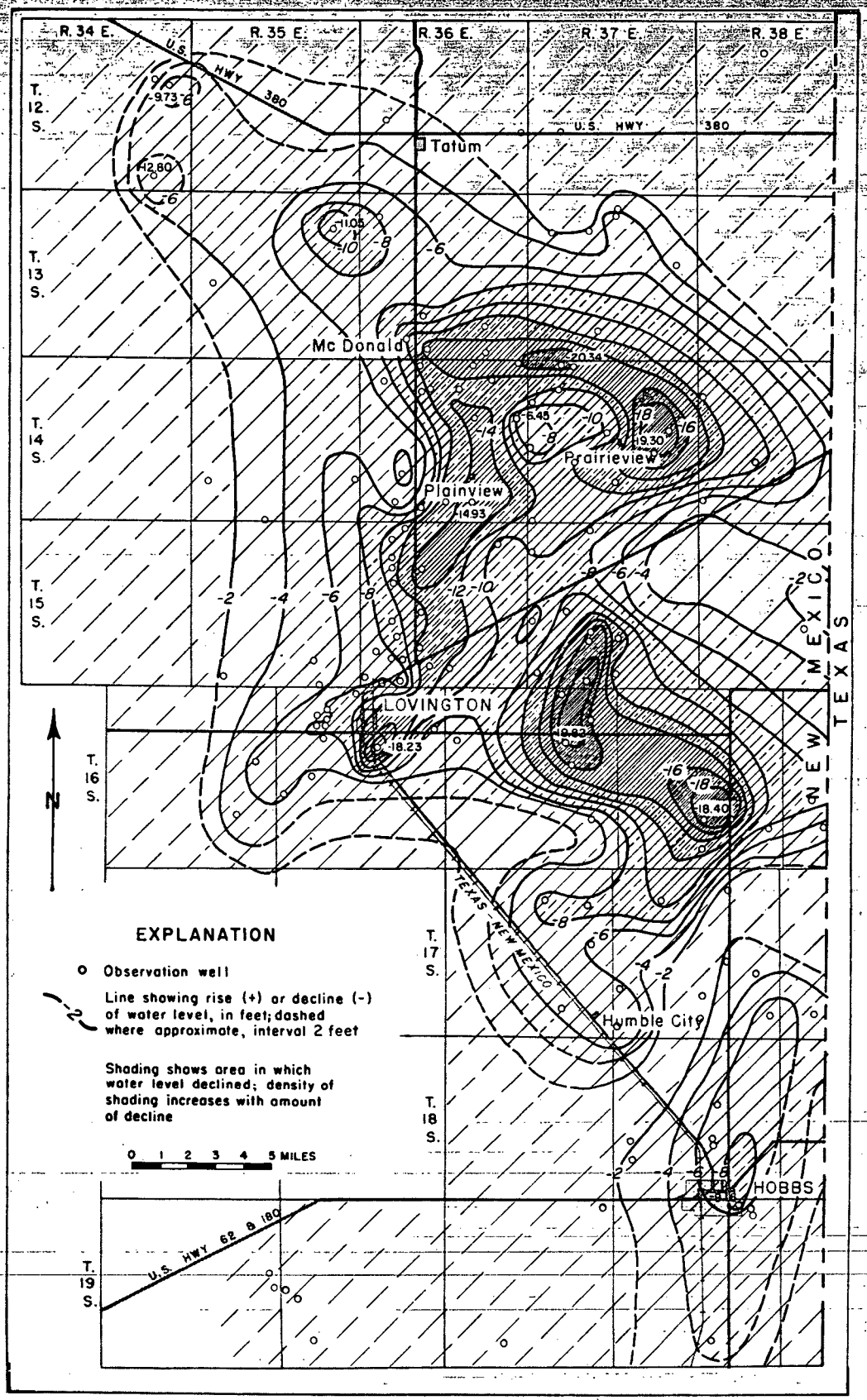


FIGURE 55. -- Change of ground-water level in Tatum-Lovington-Hobbs area of High Plains, Lea County, N. Mex., January 1950 to January 1955.

TECHNICAL REPORT 16

New Mexico State Engineer
Santa Fe, N. Mex.

CHANGES IN WATER LEVELS IN 1955 AND ANNUAL WATER-LEVEL MEASUREMENTS IN JANUARY AND FEBRUARY 1956 IN OBSERVATION WELLS IN NEW MEXICO

HIGH PLAINS
PECOS RIVER VALLEY
SOUTH-CENTRAL CLOSED BASINS
RIO GRANDE VALLEY
SOUTHWESTERN NEW MEXICO

By

H. O. Reeder and Others
U. S. Geological Survey

1960

TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY

By

H. O. Reeder

Ground water in sufficient quantities for irrigation, industrial, and municipal use is obtained from the Ogallala formation in the Tatum-Lovington-Hobbs area, a part of the High Plains in southeastern New Mexico. The Lea County Underground Water Basin, as extended by order of the State Engineer on October 1, 1952, includes about 2,180 square miles. Water levels have been measured in the area since 1929 to determine the effects of pumping and precipitation upon the ground-water storage. Records of these measurements have been published annually since 1940. Measurements were made in 206 wells in January 1955 and bimonthly in about 41. Recording gages were maintained on well 16.36.-4.Lot 12 about 1 mile northwest of Lovington, well 16.38.3.333 about 12 miles east of Lovington, and well 17.33.13.341 about 17 miles southwest of Lovington. Water levels in January 1956 (table 4) and those in January 1950 and 1955 were used in preparing the maps showing the net change in water levels (figs. 8 and 9).

Precipitation in 1955 in Lea County was near normal at Tatum, about 88 percent of normal at Lovington and Pearl (15 miles west of Hobbs), and about 77 percent of normal at Hobbs. The precipitation amounted to 16.37 inches at Tatum, 0.24 inch below normal; 13.73 inches at Lovington, 1.74 inches below normal; 11.87 inches at Pearl, 1.63 inches below normal; and 12.30 inches at Hobbs, 3.65 inches below normal. During the growing season (April through September) the precipitation was about 60 percent of normal at Tatum and Lovington, about 75 percent of normal at Hobbs, and about 93 percent of normal at Pearl. About 50 percent of the annual precipitation at Tatum and Lovington and about 75 percent at Hobbs and Pearl fell during the growing season.

In 1953 a survey showed that about 92,600 acres of land was irrigated in Lea County. It is estimated that in 1954 and 1955 about the same or slightly more land, 93,000 acres, was irrigated. On the basis of electric-power records of 221 wells and a number of pump ratings, it is estimated that about 170,000 acre-feet of water was used for irrigation in 1955, about 7,000 acre-feet more than in 1954. Pumpage for municipal use at Lovington increased from about 1,100 acre-feet in 1954 to an estimated 1,600 acre-feet in 1955. Pumpage for municipal use at Hobbs reportedly increased slightly from about 3,700 acre-feet in 1954 to about 3,800 acre-feet in 1955. The estimates of pumpage for these two places are based on metered use plus an estimate of unmetered use. The estimate of ground water used for municipal, stock, and industrial needs in 1955 was about 15,300 acre-feet, or about 1,300 acre-feet more than for 1954.

From January 1955 to January 1956, water levels declined more than 3 feet in the vicinity of McDonald and in an area about 3 miles northeast

of Prairieview. In general, the declines in water levels were not so great as in 1953 and 1954. Figure 8 shows the areal changes in water levels from January 1955 to January 1956. In this period, net water-level declines of more than 1 foot occurred under about 220 square miles, more than 2 feet under about 45 square miles, and more than 3 feet under about 7 square miles. This is compared with declines of 1, 2, 3, and 4 feet in 1954 under 243, 78, 17, and 3 square miles, respectively. Above normal precipitation in May 1955 at Tatum, Hobbs, and Pearl reduced the pumpage required for irrigation. Precipitation was above normal throughout the county in October 1955, exceptionally large amounts occurring at Tatum and Lovington. The October rains probably account for the rises in water levels near Tatum and northeast of Lovington as shown on figure 8.

From January 1950 to January 1955, water levels declined more than 6 feet under an area of about 360 square miles, more than 12 feet under about 96 square miles, and more than 18 feet under about 7 square miles. A decline of more than 18 feet occurred under 4 small areas located, respectively, 1 mile east of Prairieview, at Lovington, about 7 miles east of Lovington, and about 14 miles north of Hobbs. (See fig. 9.)

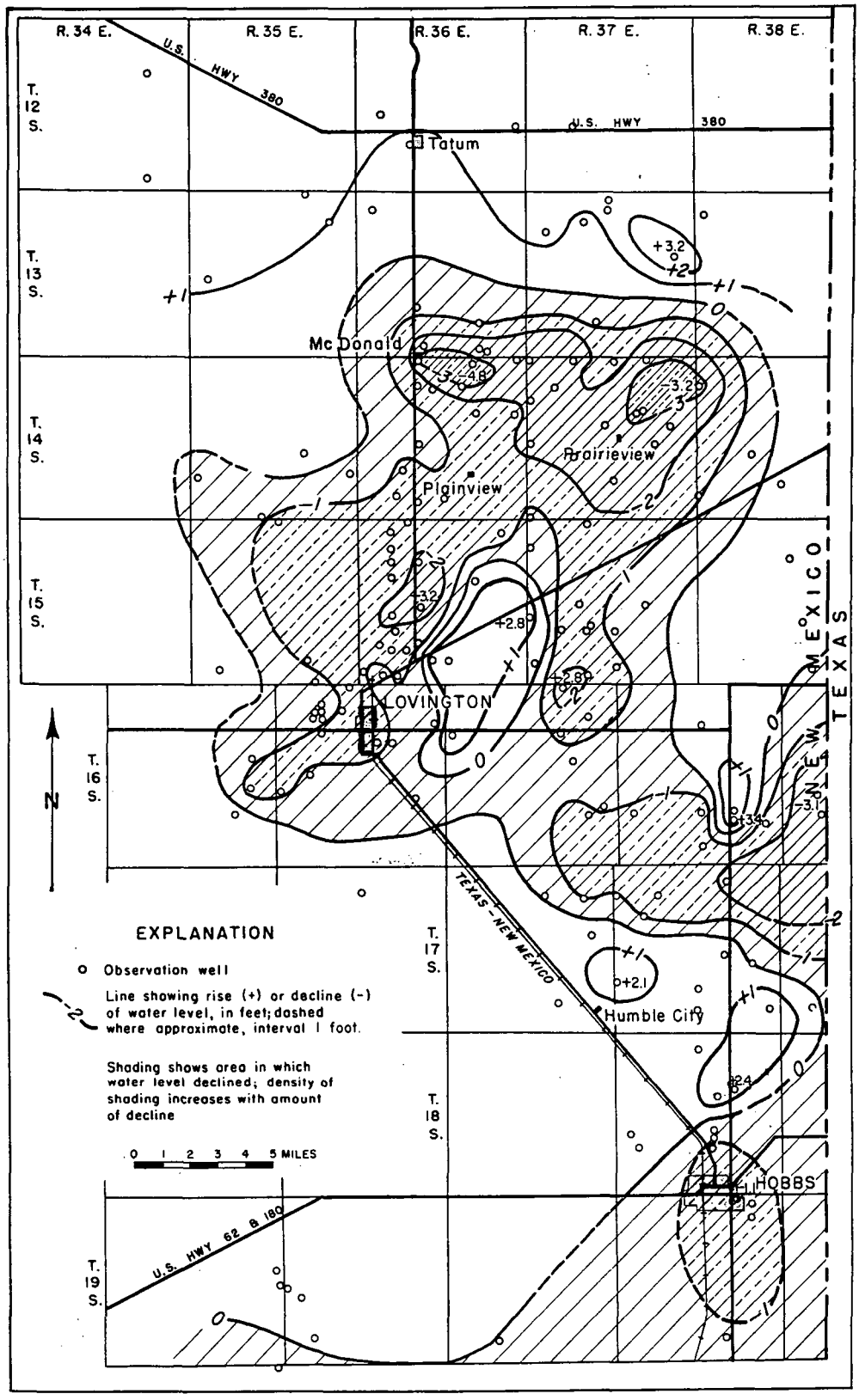


Figure 8. --Change in ground-water level from January 1955 to January 1956 in Tatum-Lovington-Hobbs area, Lea County, N. Mex.

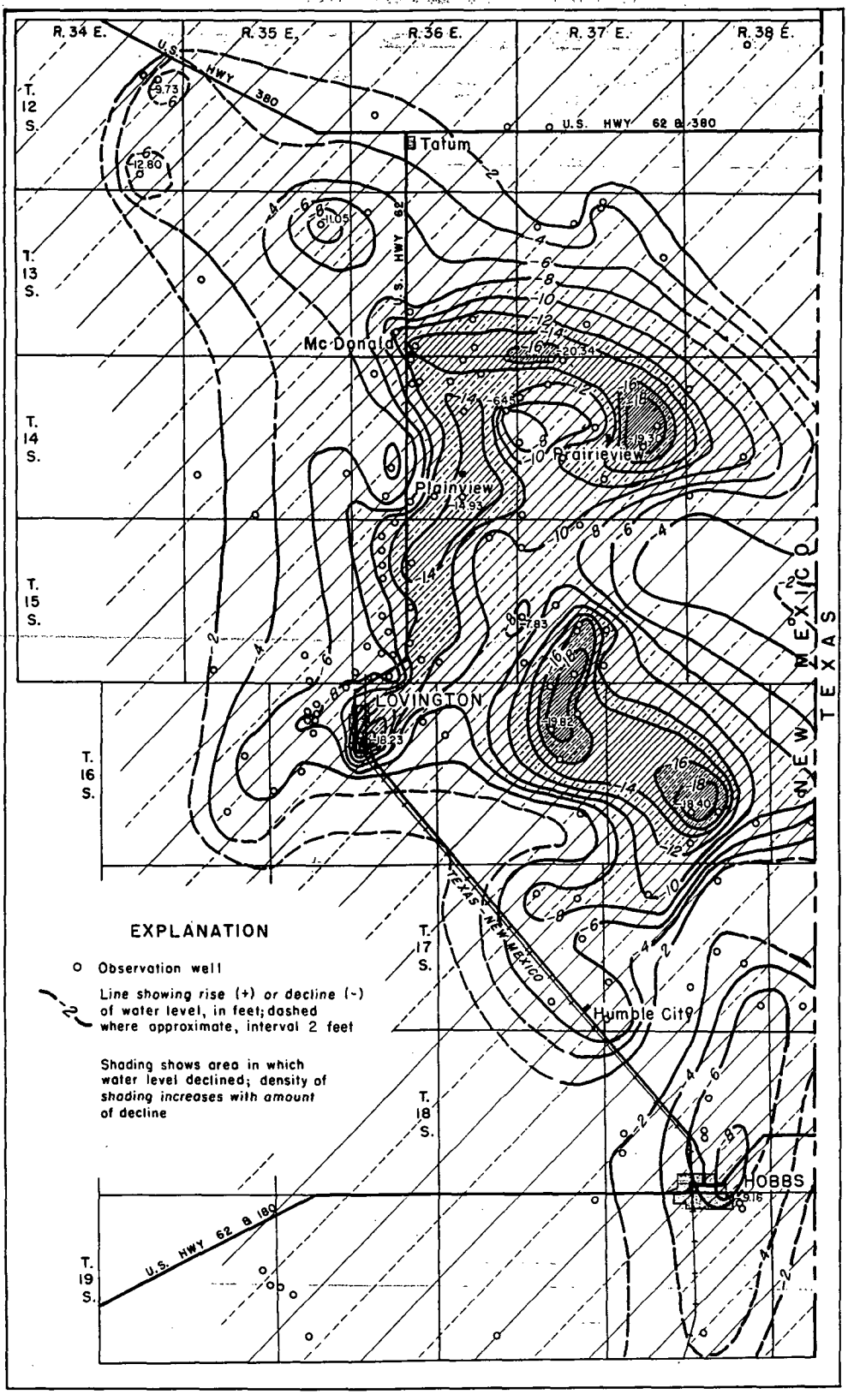


Figure 9. --Change in ground-water level from January 1950 to January 1955 in Tatum-Lovington-Hobbs area, Lea County, N. Mex.

TABLE 4

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1956, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1955 TO JANUARY 1956, IN FEET

Location number	Name	Water levels							Record	
		Jan. 1956		Change	Highest		Lowest		Began	Years missing
		Level	Day	1955-56	Level	Year	Level	Year		
11.33.25.442	R. W. and Nancy S. Epperson	33.59	12	+0.22	33.59	56	33.88	54	54	
12.31.23.333	F. E. Dickson	130.22	4	+.15	130.22	56	130.37	55	54	
26.333	do.	132.29	4	-.21	132.08	55	132.29	56	54	
26.333a	do.	130.69	4	-.18	130.40	54	130.69	56	54	
12.34.11.413	A. D. Jones Estate	31.45	12	+.36	29.78	50	31.81	55	50	
13.112	do.	(a)	12	-	29.68	48	41.81	55	48	54,56
35.411	do.	41.50	12	+7.27	35.62	49	48.77	55	48	
12.36.19.223	O. V. Fisher	29.19	13	+2.63	22.13	43	a32.05	41	39	
24.434	Jerry Clay	a22.25	6	+.43	+1.32	42	22.86	53	41	49,52,54
24.434a	do.	22.55	6	+2.30	22.55	56	24.85	55	48	
29.112	E. D. Holt	33.17	12	-	k27.69	44	k34.24	41	30	55
29.241	do.	27.55	12	+.75	27.55	56	28.30	55	55	
12.37.20.331	W. O. Dunlap, Jr.	(a)	6	-	+15.24	43	22.13	53	41	49,54-56
20.343	do.	25.50	6	+1.13	25.50	56	26.63	55	54	
12.38.4.312	G. C. Copeland	41.02	6	+.62	39.15	43	43.35	41	41	
13.32.25.214		143.28	12	+.06	143.28	56	143.34	55	54	
25.214a		143.28	12	+.05	143.28	56	143.33	55	54	
13.35.2.111a		26.53	12	+1.78	26.53	56	28.31	55	54	
11.222	Ashley Green	46.31	12	+.98	29.14	43	47.29	55	30	32-38
19.211	Clara Elkins	48.58	12	+1.11	44.75	46	49.69	55	41	51,54
13.36.6.413	R. W. Duncan	53.91	12	+.67	44.94	48	57.25	54	48	
6.413a	do.	53.67	12	+.73	51.88	53	57.49	54	53	
26.324	Mrs. Iona McClish	55.93	9	-.93	42.24	49	55.93	56	49	
28.113	M. R. Anderson	54.47	12	-.54	44.77	49	54.47	56	49	
32.211	H. N. McDaniels	(a)	12	-	42.76	50	55.15	55	49	56

See footnotes at end of table.

TABLE 4 - (Continued)

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1956, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1955 TO JANUARY 1956, IN FEET

Location number	Name	Water levels							Record	
		Jan. 1956		Change	Highest		Lowest		Began	Years
		Level	Day	1955-56	Level	Year	Level	Year		missing
13.36.33.321	L. V. Beaman	61.85	12	-2.44	40.16	47	61.85	56	39	
35.324	M. J. McClish	65.99	9	-2.37	53.74	52	65.99	56	52	
35.413	do.	59.45	9	-2.28	36.07	45	59.45	56	39	52
13.37.3.131	Brady Lowe	(Incorrect description used previously for well 13.37.4.242, which see)								
4.242	do.	43.85	6	-.73	37.74	47	43.85	56	39	
4.422	do.	37.75	6	+1.78	33.83	43	39.53	55	40	42,48
7.234	W. D. Patton	31.14	6	+1.41	29.57	48	32.55	55	47	
9.111	A. P. Breckon	38.00	6	+.81	36.33	48	38.81	55	48	
13.132	A. M. Brownfield	28.63	7	+3.15	26.46	42	31.78	55	30	50,53
28.413	Mr. Dorn	48.23	6	-.78	31.70	45	48.23	56	45	
13.38.6.341	J. W. Anderson	60.08	9	-2.60	43.02	45	60.08	56	40	
14.31.35.333		266.12	4	+.43	266.11	54	266.55	55	54	
14.33.34.344	Warren Petroleum Corp.	(a)	12	-	103.80	54	104.44	55	54	56
14.35.2.112		37.06	12	-	37.06	56	37.70	54	54	55
23.313	Mr. Anderson	38.94	11	+1.67	37.94	54	40.61	55	54	
25.241	M. J. Wiggins	51.48	11	-.42	43.30	50	51.48	56	49	
30.134	W. A. Anderson	46.93	11	-.66	44.97	51	48.93	41	39	
33.433	do.	43.63	11	-.93	39.65	52	43.63	56	30	
14.36.1.211	H. L. Wade	58.08	13	-2.16	33.80	48	58.08	56	48	53
2.113	C. E. Renshaw	68.57	9	-4.75	48.44	50	68.57	56	49	
2.410	do	(Measurements discontinued Well filled)			39.02	45	54.26	55	39	56
4.111	Lewis Beaman	58.40	9	-3.00	43.14	50	58.40	56	50	
6.421	S. A. and W. B. Richardson	(a)	12	-	39.03	44	47.91	55	40	45,54,56
9.111	A. C. Drake	55.60	9	-1.70	38.36	44	55.60	56	39	
9.211	O. M. Woodward	60.27	9	-1.97	40.46	43	60.27	56	39	53

See footnotes at end of table.

TABLE 4 - (Continued)

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1956, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1955 TO JANUARY 1956, IN FEET

Location number	Name	Water levels: Jan. 1956 Level	Day	Change 1955-56	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Years missing
14.36.10.212		64.43	9	-3.00	47.98	49	64.43	56	49	
13.211	Mattie Field	45.62	9	-1.65	35.74	46	45.62	56	30	
14.112	V. M. Chambers	47.73	9	-1.41	40.75	46	47.73	56	39	53
21.111	Curtis Patterson	49.17	9	-.16	42.69	49	49.17	56	49	
29.211	Mark Vaughn	51.57	12	-2.59	44.64	51	51.57	56	50	
32.121	H. H. Caldwell	60.00	11	-1.06	53.58	49	62.10	52	49	
33.131	Weldon Lair	66.16	10	-1.30	56.92	50	66.16	56	49	
34.111	Shelby Battles	65.44	9	-1.26	51.80	50	65.44	56	50	
35.111	Bert Wright	(a)	9	-	48.36	49	64.68	55	49	51,52,56
14.37.2.121	H. R. Hobbs	50.25	6	-2.87	34.47	51	50.25	56	51	
3.113a	Lois C. Hobbs	54.04	9	-1.66	44.81	52	54.04	56	52	
5.111	S. G. Knoll	b60.47	12	-6.79	33.34	50	53.68	55	49	
5.211		49.42	9	-3.08	31.76	49	49.42	56	49	
6.111	E. L. Harbison	56.71	12	-2.94	37.38	49	56.71	56	49	
7.311	do.	57.51	12	-2.46	42.82	49	57.51	56	49	53
8.113	do.	51.35	9	-1.99	37.93	50	51.35	56	49	
13.311	C. H. Spears	59.49	6	-2.58	35.57	49	59.49	56	49	
14.111	M. E. Powell	64.16	6	-3.11	36.12	49	64.16	56	49	50
15.222	O. A. Pope	64.17	6	-3.17	59.44	54	64.17	56	54	
16.421	School Land	44.78	6	-2.45	28.86	43	46.68	54	39	
19.111	A. B. Hennington	50.87	10	-2.23	41.15	50	50.87	56	49	
20.412	G. O. Durham	52.85	10	-2.29	33.30	45	52.85	56	40	
23.213	Lee Whitman	60.83	9	-2.56	33.90	47	60.83	56	46	
27.311	do.	52.43	10	-3.30	35.13	48	52.43	56	48	
31.333	T. N. and E. N. Miller	57.28	10	- .53	44.80	50	57.28	56	50	

See footnotes at end of table.

TABLE 4 - (Continued)

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1956, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1955 TO JANUARY 1956, IN FEET

Location number	Name	Water levels							Record	
		Jan. 1956		Change	Highest		Lowest		Began	Years
		Level	Day	1955-56	Level	Year	Level	Year		missing
14.38.7.113	B. F. Heidel	55.58	6	-3.18	40.73	50	55.58	56	50	
21.311	Claude Cox	45.69	9	-.67	32.48	49	45.69	56	49	
27.313	Guy Cave	52.50	9	+.68	38.30	51	53.18	55	51	54
31.111	W. J. and D. O. Aldridge	43.98	9	-1.02	37.45	50	43.98	56	49	
15.31.23.311		247.89	4	-.68	244.97	54	247.89	56	54	
15.33.14.100		a102.15	12	-	a102.15	56	a102.35	54	54	55
15.35.2.211		-	-	-	-	-	-	-	55	56
3.111	J. F. Watson	48.08	11	-3.27	37.30	52	48.08	56	52	
31.422	Joe Price	56.19	12	+.35	54.14	51	56.54	55	49	54
35.112	Mr. Jennings	48.01	12	-1.23	39.60	43	48.01	56	40	
35.344	Mr. Anderson	51.83	12	-.58	44.57	49	51.83	56	49	
15.36.1.311	Mrs. Ida F. Allen	54.51	10	-1.28	43.60	49	54.51	56	49	
5.Lot 2	J. P. Caudill	63.47	12	-1.57	52.73	51	63.47	56	50	
5.311	do.	54.98	12	-2.01	40.02	49	54.98	56	49	
8.111	Gordon Gann	56.97	12	-1.83	39.95	49	56.97	56	49	53
8.111a	do.	56.45	12	-1.72	43.37	50	56.45	56	50	51,53
8.311	M. G. Adams	56.39	11	-1.57	40.13	48	56.39	56	48	
9.311	E. L. and S. L. Sibley	62.92	10	-2.29	44.30	49	62.92	56	49	
14.131	Mrs. F. O. Graham	50.40	10	+.68	42.38	45	51.08	55	41	47-51,54
17.111	M. G. Adams	55.82	11	-1.28	44.47	50	55.82	56	49	
20.133	E. B. Parsons	58.58	11	-2.45	45.25	49	58.58	56	49	
21.111	D. H. Crockett	57.80	10	-3.17	42.55	49	57.80	56	49	
28.133	J. R. and Boss Hale	j64.02	11	-1.35	44.53	47	j64.02	56	47	
29.112	G. A. Fisher	59.59	11	-1.62	44.90	48	59.59	56	48	
29.331	D. A. Hudgens	57.10	11	-1.76	47.46	51	57.10	56	49	

See footnotes at end of table.

TABLE 4 - (Continued)

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1956, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1955 TO JANUARY 1956, IN FEET

Location number	Name	Water levels							Record	
		Jan. 1956		Change	Highest		Lowest		Began	Years
		Level	Day	1955-56	Level	Year	Level	Year		missing
15.36.29.410a	D. A. Hudgens	59.27	11	-1.45	47.72	50	59.27	56	50	51
29.421	H. R. Fleming	61.62	11	-	47.69	48	61.62	56	48	53,55
30.411	Ray Short	55.24	11	-1.48	46.14	51	55.24	56	49	
31.311	O. A. Payton	55.15	12	- .93	47.35	48	55.15	56	48	
31.423	W. G. Turnipseed	59.74	11	-.16	51.05	49	60.73	53	49	52
32.323	Hobdy Gann	62.07	11	-1.34	53.60	49	62.07	56	49	
33.211	Spencer Nymeyer	66.34	10	+2.40	49.14	47	72.54	54	47	
34.111	Fred Nymeyer	58.09	10	+1.75	44.12	48	60.19	54	48	
15.37.4.113	Fred D. Harkey	48.48	10	-1.65	37.10	50	48.48	56	50	
7.111	D. H. Crockett	56.73	10	-.54	46.13	50	56.73	56	50	
19.311	Otto Dean	46.16	10	+2.76	41.09	50	48.92	55	48	51,53
20.221	J. E. Steele	47.84	10	-1.87	35.30	50	47.84	56	49	
21.334	R. W. Dean	50.25	10	-1.75	29.20	45	50.25	56	31	49
23.112	Nellie Fort	39.38	10	-.44	35.59	51	39.38	56	51	
27.111	C. L. Naul	48.46	10	-.86	29.38	43	48.46	56	42	45
28.111	E. T. Wilks	48.34	10	-1.93	30.27	50	48.34	56	50	
29.111	do.	49.63	10	-1.34	39.08	51	49.63	56	51	
31.132	W. R. Dean	46.45	10	+ .16	35.04	50	46.61	55	49	
33.313	E. B. Yarbro	57.35	10	-2.03	35.97	50	57.35	56	50	
34.133	O. S. Bigham	43.02	10	-1.37	30.64	50	43.02	56	49	
15.38.10.321	Brady Lowe	36.67	10	-1.46	31.84	51	36.67	56	51	
22.441	Troy C. Fort	32.25	10	+2.17	28.72	42	34.42	55	40	54
35.133	J. W. Waits	41.74	10	-.01	37.61	50	41.74	56	50	
16.35.13.112	W. T. Zuber	50.67	11	-.90	43.38	49	50.67	56	49	
24.111	T. G. Hester	51.40	11	-1.11	44.09	51	51.40	56	51	

See footnotes at end of table

TABLE 4 - (Continued)

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1956, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1955 TO JANUARY 1956, IN FEET

Location number	Name	Water levels							Record	
		Jan. 1956		Change	Highest		Lowest		Began	Years
		Level	Day	1955-56	Level	Year	Level	Year		missing
16.35.26.211	Homer Youngblood	41.03	11	+.92	35.37	49	41.95	55	49	
16.36.1.431	Lorene Easley	51.34	11	-.66	39.65	45	51.34	56	39	
4.Lot 2	W. L. Barbee	58.28	12	-1.94	46.59	47	58.28	56	47	
4.Lot 12	E. H. Byers	57.79	4	-1.25	k43.50	43	57.79	56	35	
5.Lot 10	Mrs. Mary Coxey	57.53	11	-.60	44.53	42	57.53	56	40	48
5.Lot 14	W. B. Phillips	60.34	11	-.40	45.23	42	60.71	54	39	
5.Lot 15	D. D. Phillips	59.38	11	-.48	50.09	48	59.38	56	48	
5.321	Floyd Greer	60.52	11	-.34	44.81	42	60.52	56	39	
5.411	Mrs. E. J. Robinson	62.88	11	-.64	45.72	42	62.91	54	39	
8.211	H. W. Gillette	63.71	11	-1.17	53.67	48	63.71	56	48	
10.123	Ed. Carr	c78.91	11	-4.90	57.89	49	c78.91	56	49	
10.233	J. E. Simmons	70.78	11	-1.81	50.22	42	70.78	56	40	
11.133	C. G. Hudgens	72.06	11	-.48	50.71	48	72.06	56	48	
11.232	Lorene Easley	69.27	9	-	53.97	48	69.27	56	48	54,55
17.133	B. L. Hobbs	59.47	11	-.94	53.15	49	59.47	56	49	
19.111	George Spires	b55.08	11	-1.65	46.58	49	b55.08	56	49	
23.240	T. H. Monteith	47.63	11	-.95	46.68	55	47.63	56	54	
16.37.1.311	H. W. Wilks	51.77	10	-1.49	34.99	50	51.77	56	50	
2.Lot 4	Ugi Harada	58.66	9	-2.78	38.33	50	58.66	56	50	
7.114	O. Moore	43.55	11	+1.78	38.32	50	45.33	55	50	
11.111	A. J. Berkshire	55.42	9	-1.62	31.93	49	55.42	56	49	51
14.211	do.	56.39	9	-.63	39.73	50	56.39	56	50	
24.431a	R. L. Robinson	b47.63	9	-.39	45.01	53	b47.63	56	53	
25.111	Richard M. King	50.23	9	-7.42	36.87	50	50.23	56	50	
16.38.3.333	State of New Mexico	24.60	9	+.43	24.60	56	25.03	55	54	

See footnotes at end of table.

TABLE 4 - (Continued)

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1956, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1955 TO JANUARY 1956, IN FEET

Location number	Name	Water levels: Jan. 1956 Level	Day	Change 1955-56	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Years missing
16.38.25.144	J. S. and Rose Eaves	42.60	9	-1.72	31.90	42	42.60	56	41	
26.111	O. A. Woody	50.86	9	+2.03	35.34	50	52.89	55	50	51,54
26.113	do.	52.52	9	+3.38	51.77	54	55.90	55	54	
27.111	do.	52.91	9	-1.62	32.89	50	52.91	56	50	
30.211	R. E. Battles	46.37	9	-1.20	36.82	51	46.37	56	51	
34.131	Ralph Moe	54.88	9	-3.68	35.39	47	54.88	56	47	53
16.39.20.131	O. D. Ferguson	46.36	9	-3.09	32.47	48	46.36	56	48	
29.Lot 2	L.E. Sims L. J. Holder	63.05	9	-2.43	54.85	50	63.05	56	50	
17.33.13.341	Potash Co. of America	151.49	5	-1.13	146.39	53	151.49	56	53	
13.434	do.	161.79	5	-.91	c144.24	49	161.79	56	49	54
26.422	Phillips Petro. Co.	162.10	5	-.29	160.56	51	162.10	56	51	
17.34.21.143	Duval Sulphur Potash Co.	b125.36	5	-3.15	112.71	51	b125.36	56	51	52
35.130	Phillips Petro. Co.	90.14	5	+.04	89.88	53	91.98	41	41	
17.35.35.213	do.	39.83	5	-.04	38.60	48	41.45	41	41	
17.36.3.333	State of New Mexico	43.03	5	-.25	42.02	44	44.29	41	39	
27.131	Fred Turner	34.83	5	-.31	33.05	49	34.83	56	48	
17.37.10.211		42.54	9	-.14	32.87	49	42.54	56	49	
12.113	Lee Stiles	50.21	9	-1.02	40.69	50	50.21	56	50	
13.312	John Catchings	36.86	9	+ .86	26.05	44	37.72	55	39	
26.333	O. M. Redding	37.52	6	+ .42	26.21	43	37.94	55	38	
34.411	Dr. Peters	(Measurements discontinued)			37.77	54	39.39	55	54	56
17.38.2.311	O. and G. W. Hickerson	46.09	6	-2.29	43.65	51	46.09	56	49	
7.111a	Jim Cunningham	45.54	9	-.84	35.94	52	45.54	56	52	
8.211	J. J. Handley, Jr.	47.85	9	-1.35	36.46	50	47.85	56	50	
8.331	G. W. Brown	40.83	9	-1.01	32.88	51	40.83	56	51	

See footnotes at end of table.

TABLE 4 - (Continued)

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1956, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1955 TO JANUARY 1956, IN FEET

Location number	Name	Water levels							Record	
		Jan. 1956		Change	Highest		Lowest		Began	Years
		Level	Day	1955-56	Level	Year	Level	Year		missing
17.38.23.111		37.50	6	+0.93	36.01	49	39.67	54	49	
24.133	R. M. King	44.76	9	-.08	41.30	50	45.33	54	50	
27.133	W. E. Manning	28.52	9	+.35	25.55	47	30.35	54	46	
30.113	W. H. Martin	33.95	6	+2.09	23.97	42	36.04	55	38	
31.311	G. L. Beene	35.50	6	+.25	26.71	49	35.91	54	49	
34.113	W. E. Busby	28.94	9	+.49	24.78	44	29.51	54	44	
36.212	R. M. King	65.21	9	+2.09	59.60	50	72.19	54	50	
17.39.32.111	do.	77.69	9	+.25	72.92	50	78.88	54	50	
18.35.17.144	International Minerals Chemical Corp.	69.49	5	+.03	69.49	56	69.52	55	54	
20.144	do.	75.73	5	+.08	75.73	56	75.81	55	54	
20.214	do.	72.18	5	+.05	72.18	56	72.25	54	54	
18.36.27.111	State of New Mexico	40.18	5	+.98	38.13	43	41.66	41	39	
18.38.3.313	H. E. Teague	32.72	9	+.49	29.68	52	33.21	55	52	
14.110	Ben Gamblin	31.42	6	+2.09	31.42	56	33.51	55	54	
15.241	Glenn Staley	34.00	6	+2.36	26.77	43	38.63	54	40	
19.413	Carl Dennison	28.58	6	+.60	24.37	49	30.55	54	49	50,52
22.411	S. C. Albertson	45.83	6	-.67	34.43	43	45.83	56	40	
22.433	Glenn Staley	49.40	6	-.87	41.23	49	49.40	56	49	
27.113	City of Hobbs	45.00	6	-1.00	44.00	55	45.00	56	55	
30.223	Mrs. Sadie Davis	25.65	6	+.64	23.19	48	27.56	31	31	
19.35.13.412	B. E. Hughes	18.20	5	+.25	18.08	50	18.89	54	50	
24.222	F. K. Turner	19.76	5	+.49	17.78	47	20.38	41	39	
19.36.19.113	L. S. Evans Estate	16.68	5	+.45	15.06	47	17.93	41	39	
19.411	F. K. Turner	16.34	5	+.19	16.34	56	16.59	49	42	
32.111	do.	17.07	5	+.13	15.15	42	18.60	40	39	

See footnotes at end of table.

TABLE 4 - (Continued)

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1956, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1955 TO JANUARY 1956, IN FEET

Location number	Name	Water levels							Record	
		Jan. 1956		Change	Highest		Lowest		Began	Years
		Level	Day	1955-56	Level	Year	Level	Year		missing
19.37.1.231	Hobbs Country Club	b32.74	6	-6.25	24.75	47	27.20	54	45	53
32.241	Mrs. E. A. Anderson	12.20	6	-.01	11.50	33	12.34	49	30	
32.241a	do.	a12.45	6	-.10	12.20	w50	a12.82	54	48	
19.38.2.122	Perry Lamar	62.90	6	-1.12	43.59	42	62.90	56	40	
2.242	Bert Dodson	48.30	6	-1.12	44.38	42	52.04	53	41	
2.424	A. C. Cheser	b39.77	6	-2.27	37.50	55	46.54	41	41	42,48
34.222	Collins Walker	48.93	6	-.93	42.27	49	48.93	56	49	
20.35.1.221	J. L. Wood	25.33	5	-.35	19.70	44	25.63	41	30	
20.37.9.110	W. H. Laughlin	32.69	6	-.09	27.18	43	42.40	38	30	36,37
20.38.12.244		c44.81	6	-1.69	43.12	55	c44.81	56	54	
20.39.7.133		c45.25	6	-2.22	43.03	55	c45.25	56	54	
18.344		45.32	6	-.05	45.27	55	46.08	54	54	

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
k. From recorder chart.
w. Also 1953.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.

TECHNICAL REPORT 19

New Mexico State Engineer
Santa Fe, N. Mex.

GROUND-WATER LEVELS IN NEW MEXICO, 1956

By

H. O. Reeder and Others
U. S. Geological Survey

1960

TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY

By

H. O. Reeder

Ground water in quantities sufficient for irrigation, industrial, and municipal uses is obtained from the Ogallala formation in the Tatum-Lovington-Hobbs area, a part of the High Plains, in southeastern New Mexico. The Lea County Underground Water Basin, as extended by order of the State Engineer on October 1, 1952, includes 2,180 square miles. Water levels have been measured in the area since 1929 in an effort to determine effects of pumping and precipitation on ground-water storage. Water levels were measured in 200 wells in January 1956 and in 42 of these wells at bimonthly intervals during the year. A total of 410 measurements was made during the year. Recording gages were maintained on the following wells: 16.38.3.333, about 12 miles east of Lovington (table 12); 17.33.13.341, about 17 miles southwest of Lovington (table 13); and 16.36.4.Lot 12, a mile northwest of Lovington (table 11). Well 16.36.4.Lot 12 was replaced by 16.36.5.Lot 2 in November 1956, when the recording gage was moved to the new location. Water levels measured in January 1957 (table 10) and January 1956 were used in preparing the map (fig. 6) showing net changes in water levels.

Precipitation in 1956 in Lea County ranged from 43 percent of normal at Pearl (15 miles west of Hobbs) to 69 percent of normal at Lovington. According to the U. S. Weather Bureau, precipitation in inches totaled: 10.29 at Tatum, 6.32 less than normal; 10.73 at Lovington, 4.74 less than normal; 8.63 at Hobbs, 7.32 less than normal; and 5.79 at Pearl, 7.71 less than normal. During the growing season, April through September, precipitation was 52 percent of normal at Tatum, 56 percent of normal at Lovington, 37 percent of normal at Hobbs, and 34 percent of normal at Pearl. About 63 percent of the annual precipitation at Tatum and Lovington and 55 percent at Hobbs and Pearl occurred during the growing season.

Even though new land had been put under irrigation, the total area of land irrigated decreased in 1956 because some land previously irrigated had been left idle. The Lea County Agricultural Extension Agent estimated that 98,000 acres was irrigable, but that only 75,200 acres was irrigated in 1956. About 93,000 acres was irrigated in 1954 and 1955. Electric-power records of 215 irrigation pumps, for which comparable records are available for 1955 and 1956, and pump ratings indicate that 160,000 acre-feet of water was pumped for irrigation in 1956 as compared with 170,000 acre-feet in 1955. Although the deficient precipitation required more water to be pumped per acre irrigated during 1956, the reduction in acreage irrigated resulted in a reduction of the gross water requirements. Municipal pumpage at Lovington and Hobbs increased from 1,600 acre-feet to 2,500 and from 3,800 acre-feet to 5,000, respectively, from 1955 to 1956, based on metered use plus an estimate of unmetered use. Ground water pumped for municipal, stock, and industrial uses was estimated to be 15,300 acre-feet in 1955 and 18,600 acre-feet in 1956.

Water levels declined more than 2 feet from January 1956 to January

1957 in several places, totaling about 55 square miles in area, between McDonald and Hobbs. In general, net declines were more widespread in 1956 than in 1955, but the maximum declines were less in 1956. Figure 6 shows the areal extent of changes in water levels from January 1956 to January 1957. In this period net water-level declines of more than a foot occurred in 475 square miles, of more than 2 feet in 55 square miles, and of more than 3 feet in less than 1 square mile. The same declines included 220, 45, and 7 square miles, respectively, in 1955. Water levels rose in 1955 in parts of the area of decline in 1956, probably as a result of heavy rains in October of that year. More than or nearly normal precipitation throughout the area in February and May and nearly normal precipitation at Lovington in July reduced ground water requirements for irrigation. Precipitation in February reduced the amount of preseason pumpage in preparing the land for planting. Amounts of precipitation are reflected in the electric-power records. In general, the amount of power used was relatively small throughout the area in February, March, and June and near Lovington in July.

Water levels reached record lows in most observation wells east of a line from Tatum through Lovington to Hobbs. As the ground water is being pumped primarily from storage, water levels may be expected to decline further as pumping continues.

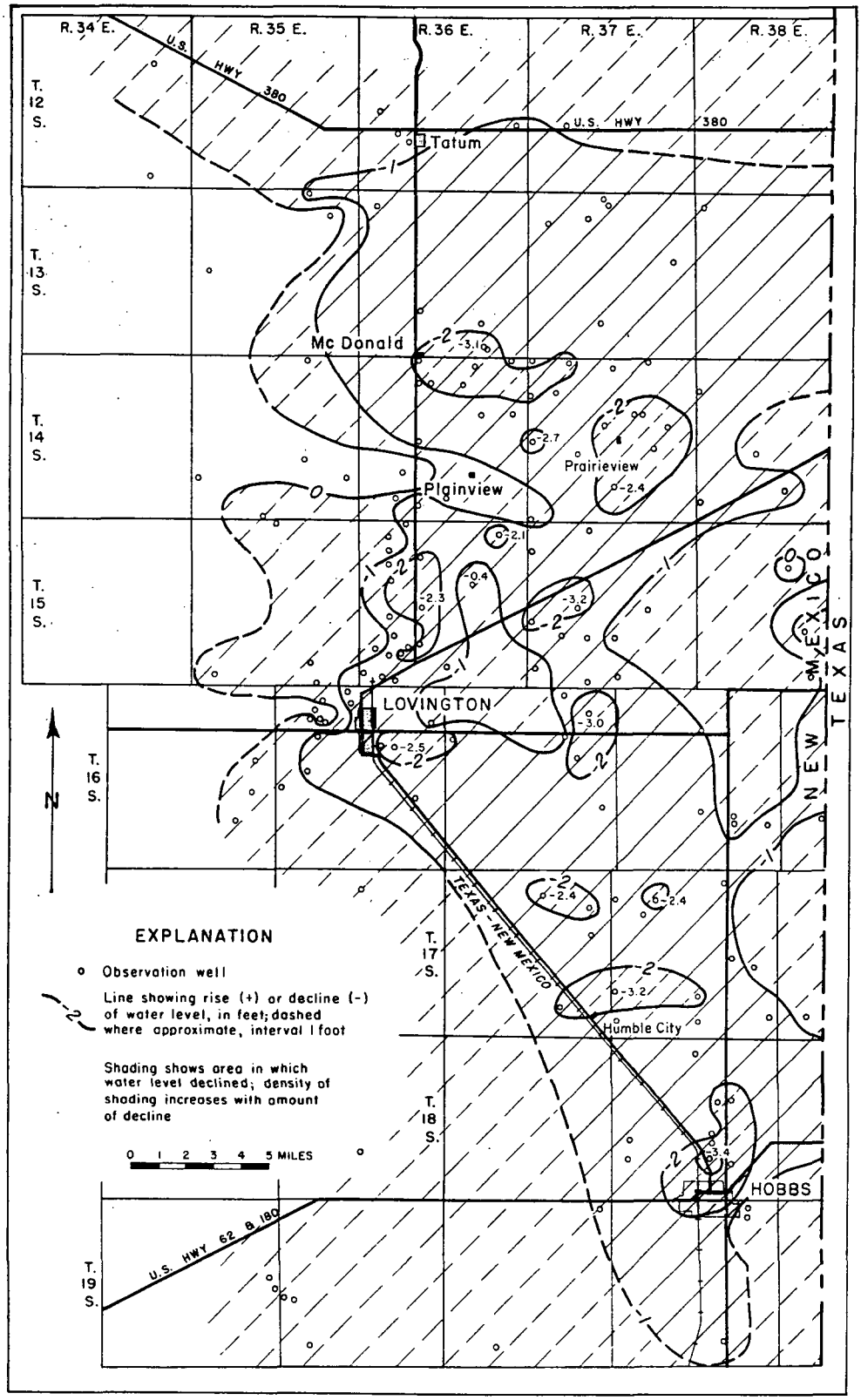


FIGURE 6. -- Change of ground-water level from January 1956 to January 1957 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

TABLE 10

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, NEW MEXICO, IN JANUARY 1957, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1956 TO JANUARY 1957, IN FEET

(* Additional measurements and other data for this well are listed in following tabulation of seasonal measurements or daily records of water level)

Location number		Name	Water levels: Jan. 1957 Level	Day	Change 1956-57	Highest Level	Year	Lowest Level	Year	Record: Began	Years missing
11.33.25.442	*	R. W. and Nancy S. Epperson	33.56	9	+0.03	33.56	57	33.88	54	54	
12.31.23.333	*	F. E. Dickson	129.90	7	+ .32	129.90	57	130.37	55	54	
26.333	*	do.	132.05	7	+ .24	132.05	57	132.29	56	54	
26.333a	*	do.	130.54	7	+ .15	130.40	54	130.69	56	54	
12.34.11.413	*	A. D. Jones Estate	31.75	9	- .30	29.78	50	31.81	55	50	
13.112		do.	39.95	9	-	29.68	48	41.81	55	48	54,56
35.411		do.	41.45	9	+ .05	35.62	49	48.77	55	48	
12.36.19.223		O. V. Fisher	29.84	9	- .65	22.13	43	a32.05	41	39	
24.434		Jerry Clay	a23.26	9	-1.01	+1.32	42	a23.26	57	41	49,52,54
24.434a	*	do.	24.27	9	-1.72	22.55	56	24.85	55	48	
29.112		E. D. Holt	33.38	9	- .21	k27.69	44	k34.24	41	30	55
29.241	*	do.	27.81	9	- .26	27.55	56	28.30	55	55	
12.37.20.331		W. O. Dunlap, Jr.	(a)	9	-	+15.24	43	22.13	53	41	49,54-57
20.343		do.	25.69	9	- .19	25.50	56	26.63	55	54	
12.38.4.312		G. C. Copeland	41.32	9	- .30	39.15	43	43.35	41	41	
13.32.25.214			143.09	9	+ .19	143.09	57	143.34	55	54	
25.214a			143.09	9	+ .19	143.09	57	143.33	55	54	
13.35.2.111a	*		27.61	11	-1.08	26.53	56	28.31	55	54	
11.222		Ashley Green	45.47	11	+ .84	29.14	43	47.29	55	30	32-38
19.211		Clara Elkins	48.14	11	+ .44	44.75	46	49.69	55	41	51,54
13.36.6.413		R. W. Duncan	55.80	11	-1.89	44.94	48	57.25	54	48	
6.413a		do.	55.62	11	-1.95	51.88	53	57.49	54	53	
26.324		Mrs. Iona McClish	57.63	22	-1.70	42.24	49	57.63	57	49	
28.113		M. R. Anderson	54.75	22	- .28	44.77	49	54.75	57	49	
32.211		H. N. McDaniels	58.95	22	-	42.76	50	58.95	57	49	56
33.321		L. V. Beaman	60.60	22	+1.25	40.16	47	61.85	56	39	

See footnotes at end of table.

TABLE 10 - (Continued)
WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, NEW MEXICO, IN JANUARY 1957,
HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM,
AND CHANGE FROM JANUARY 1956 TO JANUARY 1957, IN FEET

Location number		Name	Water levels: Jan. 1957 Level	Jan. 1957 Day	Change 1956-57	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Record: Years missing
13.36.35.324		M. J. McClish	69.12	22	-3.13	53.74	52	69.12	57	52	
35.413		do.	62.15	22	-2.70	36.07	45	62.15	57	39	52
13.37.4.242		Brady Lowe	43.40	9	+ .45	37.74	47	43.85	56	39	
4.422		do.	39.23	9	-1.48	33.83	43	39.53	55	40	42,48
7.234	*	W. D. Patton	33.29	9	-2.15	29.57	48	33.29	57	47	
9.111		A. P. Breckon	38.95	9	- .95	36.33	48	38.95	57	48	
13.132	*	A. M. Brownfield	32.53	p8	-3.90	26.46	42	p32.53	57	30	50,53
28.413		Mr. Dorn	49.46	22	-1.23	31.70	45	49.46	57	45	
13.38.6.341		J. W. Anderson	61.89	9	-1.81	43.02	45	61.89	57	40	
14.31.35.333		(Measurement discontinued well filled)	-			266.11	54	266.55	55	54	57
14.33.34.344		Warren Petroleum Corp.	(a)	9	-	103.80	54	104.44	55	54	56,57
14.35.2.112			37.98	11	- .92	37.06	56	37.98	57	54	55
23.313		Mr. Anderson	37.98	11	+ .96	37.94	54	40.61	55	54	
25.241		M. J. Wiggins	50.17	11	+1.31	43.30	50	51.48	56	49	
30.134		W. A. Anderson	46.75	11	+ .18	44.97	51	48.93	41	39	
33.433	*	do.	44.41	11	- .78	39.65	52	44.41	57	30	
14.36.1.211		H. L. Wade	59.88	8	-1.80	33.80	48	59.88	57	48	53
2.113		C. E. Renshaw	71.03	22	-2.46	48.44	50	71.03	57	49	
4.111	*	Lewis Beaman	60.58	11	-2.18	43.14	50	60.58	57	50	
6.421		S. A. and W. B. Richardson	50.25	11	-	39.03	44	50.25	57	40	45,54,56
9.111		A. C. Drake	57.36	22	-1.76	38.36	44	57.36	57	39	
9.211		O. M. Woodward	62.58	22	-2.31	40.46	43	62.58	57	39	53
10.212			66.98	22	-2.55	47.98	49	66.98	57	49	
13.211	*	Mattie Field	46.90	8	-1.28	35.74	46	46.90	57	30	
14.112		do.	49.27	8	-1.54	40.75	46	49.27	57	39	53
21.111		Curtis Patterson	50.27	11	-1.10	42.69	49	50.27	57	49	

See footnotes at end of table.

TABLE 10 - (Continued)

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, NEW MEXICO, IN JANUARY 1957, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1956 TO JANUARY 1957, IN FEET

Location number	Name	Water levels							Record	
		Jan. 1957		Change	Highest		Lowest		Began	Years
		Level	Day	1956-57	Level	Year	Level	Year		missing
14.36.29.211	Mark Vaughn	49.86	22	+1.71	44.64	51	51.57	56	50	
32.121	H. H. Caldwell	60.75	11	- .75	53.58	49	62.10	52	49	
33.131	Weldon Lair	68.68	8	-2.52	56.92	50	68.68	57	49	
34.111	Shelby Battles	66.35	7	- .91	51.80	50	66.35	57	50	
35.111	Bert Wright	64.28	7	-	48.36	49	64.68	55	49	51,52,56
14.37.2.121	H. R. Hobbs	51.72	22	-1.47	34.47	51	51.72	57	51	
3.113a	Lois C. Hobbs	55.55	22	-1.51	44.81	52	55.55	57	52	
5.111	S. G. Knoll	60.52	22	- .05	33.34	50	60.52	57	49	
5.211		51.47	22	-2.05	31.76	49	51.47	57	49	
6.111	E. L. Harbison	58.55	8	-1.84	37.38	49	58.55	57	49	
7.311	do.	59.64	22	-2.13	42.82	49	59.64	57	49	53
8.113	do.	52.77	22	-1.42	37.93	50	52.77	57	49	
13.311	C. H. Spears	61.87	8	-2.38	35.57	49	61.87	57	49	
14.111	M. E. Powell	66.60	8	-2.44	36.12	49	66.60	57	49	50
15.222	* O. A. Pope	66.58	8	-2.41	59.44	54	66.58	57	54	
16.421	School Land	47.05	8	-2.27	28.86	43	47.05	57	39	
19.111	A. B. Hennington	53.21	3	-2.34	41.15	50	53.21	57	49	
20.412	G. O. Durham	m54.50	8	-1.65	33.30	45	m54.50	57	40	
23.213	Lee Whitman	63.08	8	-2.25	33.90	47	63.08	57	46	
27.311	do.	54.88	7	-2.45	35.13	48	54.88	57	48	
31.333	* T. N. and E. N. Miller	58.04	7	- .76	44.80	50	58.04	57	50	
14.38.7.113	B. F. Heidel	56.98	8	-1.40	40.73	50	56.98	57	50	
21.311	* Claude Cox	46.43	8	- .74	32.48	49	46.43	57	49	
27.313	Guy Cave	53.99	8	-1.49	38.30	51	53.99	57	51	54
31.111	W. J. and D. O. Aldridge	45.34	8	-1.36	37.45	50	45.34	57	49	
15.31.23.311		248.49	7	- .60	244.97	54	248.49	57	54	

See footnotes at end of table.

TABLE 10 - (Continued)
WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, NEW MEXICO, IN JANUARY 1957,
HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM,
AND CHANGE FROM JANUARY 1956 TO JANUARY 1957, IN FEET

Location number	Name	Water levels: Jan. 1957 Level	Jan. 1957 Day	Change 1956-57	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Record: Years missing
15.33.14.100		a103.55	9	-1.40	a102.15	56	a103.55	57	54	55
15.35.2.211		(Measurement discontinued)			-	-	-	-	55	56,57
3.111	J. F. Watson	46.01	11	+2.07	37.30	52	48.08	56	52	
31.422	Joe Price	56.82	22	- .63	54.14	51	56.82	57	49	54
35.112	Mr. Jennings	48.31	22	- .30	39.60	43	48.31	57	40	
35.344	Mr. Anderson	52.40	22	- .57	44.57	49	52.40	57	49	
15.36.1.311	Mrs. Ida F. Allen	56.65	7	-2.14	43.60	49	56.65	57	49	
5.Lot 2	J. P. Caudill	65.40	11	-1.93	52.73	51	65.40	57	50	
5.311	do.	55.17	21	- .18	40.02	49	55.17	57	49	
8.111	Gordon Gann	-	-	-	39.95	49	56.97	56	49	53,57
8.111a	* do.	56.74	21	- .29	43.37	50	56.74	57	50	51,53
8.311	M. G. Adams	57.68	21	-1.29	40.13	48	57.68	57	48	
9.311	E. L. and S. L. Sibley	j65.07	21	-2.15	44.30	49	j65.07	57	49	
14.131	Mrs. F. O. Graham	50.80	21	- .40	42.38	45	51.08	55	41	47-51,54
17.111	M. G. Adams	57.83	21	-2.01	44.47	50	57.83	57	49	
20.133	E. B. Parsons	60.50	21	-1.92	45.25	49	60.50	57	49	
21.111	Marvin McLish	60.10	21	-2.30	42.55	49	60.10	57	49	
28.133	J. R. and Boss Hale	b66.04	21	-2.02	44.53	47	64.02	56	47	
29.112	G. A. Fisher	61.48	21	-1.89	44.90	48	61.48	57	48	
29.331	D. A. Hudgens	58.52	21	-1.42	47.46	51	58.52	57	49	
29.410a	do.	61.65	22	-2.38	47.72	50	61.65	57	50	51
29.421	H. R. Fleming	62.48	22	- .86	47.69	48	62.48	57	48	53,55
30.411	Ray Short	55.83	22	- .59	46.14	51	55.83	57	49	
31.311	O. A. Payton	56.39	22	-1.24	47.35	48	56.39	57	48	
31.423	W. G. Turnipseed	60.82	22	-1.08	51.05	49	60.82	57	49	52
32.323	Hobdy Gann	63.44	22	-1.37	53.60	40	63.44	57	49	

See footnotes at end of table.

TABLE 10 - (Continued)
WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, NEW MEXICO, IN JANUARY 1957,
HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM,
AND CHANGE FROM JANUARY 1956 TO JANUARY 1957, IN FEET

Location number		Name	Water levels							Record	
			Jan. 1957		Change	Highest		Lowest		Began	Year
			Level	Day	1956-57	Level	Year	Level	Year		missing
15.36.33.211		Spencer-Nymeyer	(a)	21	-	49.14	47	72.54	54	47	57
34.111		Fred Nymeyer	56.89	21	-1.20	44.12	48	60.19	54	48	
15.37.4.113		Fred D. Harkey	50.22	7	-1.74	37.10	50	50.22	57	50	
7.111		D. H. Crockett	58.14	7	-1.41	46.13	50	58.14	57	50	
19.311		Otto Dean	48.27	21	-2.11	41.09	50	48.92	55	48	51,53
20.221		J. E. Steele	50.99	21	-3.15	35.30	50	50.99	57	49	
21.334	*	R. W. Dean	a58.15	21	-7.90	29.20	45	50.25	56	31	49
23.112		Nellie Fort	40.14	21	- .76	35.59	51	40.14	57	51	
27.111		C. L. Naul	48.48	21	- .02	29.38	43	48.48	57	42	45
28.111		E. T. Wilks	49.94	21	-1.60	30.27	50	49.94	57	50	
29.111		do.	51.52	21	-1.89	39.08	51	51.52	57	51	
31.132		W. R. Dean	47.10	21	- .65	35.04	50	47.10	57	49	
33.313		E. B. Yarbro	58.77	21	-1.42	35.97	50	58.77	57	50	
34.133		O. S. Bigham	44.60	21	-1.58	30.64	50	44.60	57	49	
15.38.10.321		Brady Lowe	36.24	8	+ .43	31.84	51	36.67	56	51	
22.441		Troy C. Fort	35.07	8	-2.82	28.72	42	35.07	57	40	54
35.133		J. W. Waits	42.51	8	- .77	37.61	50	42.51	57	50	
16.35.13.112	*	W. T. Zuber	51.03	23	- .36	43.38	49	51.03	57	49	
24.111		T. G. Hester	52.10	23	- .70	44.09	51	52.10	57	51	
26.211		Homer Youngblood	41.42	23	- .39	35.37	49	41.95	55	49	
16.36.1.431		Lorene Easley	51.33	24	+ .01	39.65	45	51.34	56	39	
4.Lot 2		W. L. Barbee	60.04	22	-1.76	46.59	47	60.04	57	47	
4.Lot 12	*	E. H. Byers	58.90	10	-1.11	k43.50	43	58.90	57	35	
5.Lot 2	*	Miss Ethel Yadon	53.96	10	-	-	-	-	-	57	
5.Lot 10		Mrs. Mary Coxey	57.96	10	- .43	44.53	42	57.96	57	40	48

See footnotes at end of table.

TABLE 10 - (Continued)

WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, NEW MEXICO, IN JANUARY 1957, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1956 TO JANUARY 1957, IN FEET

Location number	Name	Water levels: Jan. 1957 Level	Day	Change 1956-57	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Years missing
16.36.5.Lot 14	W. B. Phillips	60.27	10	+0.07	45.23	42	60.71	54	39	
5.Lot 15	I. D. Phillips	59.32	10	+ .06	50.09	48	59.38	56	48	
5.321	Floyd Greer	60.60	10	- .08	44.81	42	60.60	57	39	
5.411	Mrs. E. J. Robinson	62.78	10	+ .10	45.72	42	62.91	54	39	
8.211	H. W. Gillette	65.33	23	-1.62	53.67	48	65.33	57	48	
10.123	Ed. Carr	(Measurement discontinued - well filled)			57.89	49	c78.91	56	49	57
10.233	J. E. Simmons	72.84	10	-2.06	50.22	42	72.84	57	40	
11.133	C. G. Hudgens	74.53	10	-2.47	50.71	48	74.53	57	48	
11.232	Lorene Easley	(a)	10	-	53.97	48	69.27	56	48	54,55,57
17.133	B. L. Hobbs	61.07	23	-1.60	53.15	49	61.07	57	49	
19.111	George Spires	55.45	23	- .37	46.58	49	55.45	57	49	
23.240	T. H. Monteith	49.49	24	-1.86	46.68	55	49.49	57	54	
16.37.1.311	H. W. Wilks	54.72	21	-2.95	34.99	50	54.72	57	50	
2.Lot 4	Ugi Harada	60.19	21	-1.53	38.33	50	60.19	57	50	
7.114	O. Moore	45.59	24	-2.04	38.32	50	45.59	57	50	
11.111	* A. J. Berkshire	56.24	21	- .82	31.93	49	56.24	57	49	51
14.211	do.	59.25	21	-2.86	39.73	50	59.25	57	50	
24.431a	R. L. Robinson	48.99	21	-1.36	45.01	53	48.99	57	53	
25.111	Richard M. King	47.82	21	+2.41	36.87	50	50.23	56	50	
16.38.3.333	* State of New Mexico	25.62	24	-1.02	24.60	56	25.62	57	54	
25.144	J. S. and Rose Eaves	43.71	21	-1.11	31.90	42	43.71	57	41	
26.111	O. A. Woody	51.13	21	- .27	35.34	50	52.89	55	50	51,54
26.113	do.	52.71	21	- .19	51.77	54	55.90	55	54	
27.111	do.	54.71	21	-1.80	32.89	50	54.71	57	50	
30.211	R. E. Battles	46.05	21	+ .32	36.82	51	46.37	56	51	

See footnotes at end of table.

TABLE 10 - (Continued)
WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, NEW MEXICO, IN JANUARY 1957, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1956 TO JANUARY 1957, IN FEET

Location number	Name	Water levels: Jan. 1957 Level	Day	Change 1956-57	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Years missing
16.38.34.131	* Dick Seaborn	59.51	21	-4.63	35.39	47	59.51	57	47	53
16.39.20.131	O. D. Ferguson	47.45	21	-1.09	32.47	48	47.45	57	48	
29.Lot 2	L. E. Sims, L. J. Holder	64.02	21	- .97	54.85	50	64.02	57	50	
17.33.13.341	* Potash Co. of America	152.57	23	-1.08	146.39	53	152.57	57	53	
13.434	* do.	c167.92	23	-6.13	c144.24	49	161.79	56	49	54
26.422	* Phillips Petro. Co. (Measurements discontinued-well filled)				160.56	51	162.10	56	51	57
17.34.21.143	* Duval Sulphur Potash Co.	a152.85	23	-	112.71	51	b125.36	56	51	52
35.130	* Phillips Petro. Co.	90.29	12	- .15	89.88	53	91.98	41	41	
17.35.35.213	* do.	39.90	23	- .07	38.60	48	41.45	41	41	
17.36.3.333	* State of New Mexico	43.05	23	- .02	42.02	44	44.29	41	39	
27.131	* Fred Turner	35.19	p6	- .36	33.05	49	p35.19	57	48	
17.37.10.211	S. M. Reiland	44.93	11	-2.39	32.87	49	44.93	57	49	
12.113	Lee Stiles Estate	52.47	11	-2.26	40.69	50	52.47	57	50	
13.312	John Catchings	38.46	11	-1.60	26.05	44	38.46	57	39	
26.333	Tim Woods	39.55	11	-2.03	26.21	43	39.55	57	38	
34.111	C. G. Goodwin	42.13	11	-	-	-	-	-	51	
17.38.2.311	O. and G. W. Hickerson	47.40	21	-1.31	43.65	51	47.40	57	49	
7.111a	* L. R. Sebings	46.99	11	-1.45	35.94	52	46.99	57	52	
8.211	J. J. Handley, Jr.	50.23	11	-2.38	36.46	50	50.23	57	50	
8.331	G. W. Brown	42.65	11	-1.82	32.88	51	42.65	57	51	
23.111		39.17	11	-1.67	36.01	49	39.67	54	49	
24.133	R. M. King	45.15	11	- .39	41.30	50	45.33	54	50	
27.133	W. E. Manning	30.59	11	-2.07	25.55	47	30.59	57	46	
30.113	W. H. Martin	37.10	11	-3.15	23.97	42	37.10	57	38	
31.311	G. L. Beene	37.06	11	-1.56	26.71	49	37.06	57	49	

See footnotes at end of table.

TABLE 10 - (Continued)
WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, NEW MEXICO, IN JANUARY 1957,
HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM,
AND CHANGE FROM JANUARY 1956 TO JANUARY 1957, IN FEET

Location number	Name	Water levels: Jan. 1957 Level	Jan. 1957 Day	Change 1956-57	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Record: Years missing
17.38.34.113	* W. E Busby	30.30	11	-1.36	24.78	44	30.30	57	44	
36.212	R. M. King	68.45	11	-3.24	59.60	50	72.19	54	50	
17.39.32.111	do.	78.09	11	- .40	72.92	50	78.88	54	50	
18.35.17.144	* International Minerals Chemical Corp.	69.50	12	- .01	69.49	56	69.52	55	54	
20.144	* do.	75.77	12	- .04	75.73	56	75.81	55	54	
20.214	* do.	72.24	12	- .06	72.18	56	72.25	54	54	
18.36.27.111	* State of New Mexico	40.63	12	- .45	38.13	43	41.66	41	39	
18.38.3.313	H. E. Teague	34.41	11	-1.69	29.68	52	34.41	57	52	
14.113	Ben Gamblin	33.76	11	-2.34	31.42	56	33.76	57	54	
15.241	* Glenn Staley	36.05	8	-2.05	26.77	43	38.63	54	40	
19.413	Carl Dennison	29.83	8	-1.25	24.37	49	30.55	54	49	50,52
22.411	S. C. Albertson	47.56	11	-1.73	34.43	43	47.56	57	40	
22.433	Glenn Staley	51.86	8	-2.46	41.23	49	51.86	57	49	
27.113	* City of Hobbs	48.40	8	-3.40	44.00	55	48.40	57	55	
30.223	* Mrs. Sadie Davis	27.43	8	-1.78	23.19	48	27.56	31	31	
19.35.13.412	B. E. Hughes	18.82	12	- .62	18.08	50	18.89	54	50	
24.222	F. K. Turner	f20.57	12	-	17.78	47	20.38	41	39	57
19.36.19.113	L. S. Evans Estate	17.30	12	- .62	15.06	47	17.93	41	39	
19.411	F. K. Turner	16.46	12	- .12	16.34	56	16.59	49	42	
32.111	do.	17.36	12	- .29	15.15	42	18.60	40	39	
19.37.1.231	Hobbs Country Club	29.91	8	-	24.75	47	29.91	57	45	53,56
32.241	* Mrs. E. A. Anderson	12.22	12	- .02	11.50	33	12.34	49	30	
32.241a	do.	-	-	-	12.20	w50	a12.82	54	48	57
19.38.2.122	Perry Lamar	64.86	8	-1.96	43.59	42	64.86	57	40	

See footnotes at end of table.

TABLE 10 - (Continued)
WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, NEW MEXICO, IN JANUARY 1957,
HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM,
AND CHANGE FROM JANUARY 1956 TO JANUARY 1957, IN FEET

Location number	Name	Water levels							Record	
		Jan. 1957		Change	Highest		Lowest		Began	Years
		Level	Day	1956-57	Level	Year	Level	Year		missing
19.38.2.242	Bert Dodson	48.67	8	-0.37	44.38	42	52.04	53	41	
2.424	A. C. Cheser	38.04	8	+1.73	37.50	55	46.54	41	41	42,48
34.222	Collins Walker	50.41	8	-1.48	42.27	49	50.41	57	49	
20.35.1.221	* J. L. Wood	25.68	12	- .35	19.70	44	25.68	57	30	
20.37.9.110	* W. H. Laughlin	33.35	12	- .66	27.18	43	42.40	38	30	36,37
20.38.12.244		-	-	-	43.12	55	c44.81	56	54	57
20.39.7.133		-	-	-	43.03	55	c45.25	56	54	57
18.344		c45.46	8	- .14	45.27	55	46.08	54	54	

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
f. Dry.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder chart.
m. Measurement uncertain.
p. March.
w. Also 1953.

Well Descriptions and Seasonal Water-Level Measurements, 1956

11.33.25.442. R. W. and Nancy S. Epperson. Drilled water-table well in Ogallala formation, diameter 8 inches, depth 69 feet. Highest water level 33.55 below lsd, May 8, 1956; lowest 33.97 below lsd, July 14, 1954. Records available: 1953-56. Jan. 12, 33.59; Mar. 13, 33.56; May 8, 33.55; July 30, 33.60; Sept. 10, 33.59; Nov. 28, 33.59.

12.31.23.333. F. E. Dickson. Unused water-table well in Ogallala formation, diameter 3 inches, depth 148 feet. Highest water level 129.76 below lsd, Sept. 10, 1956; lowest 130.37 below lsd, May 12, 1954. Records available: 1953-56. Jan. 4, 130.22; Mar. 13, 130.16; May 8, 130.00; July 30, 129.80; Sept. 10, 129.76; Nov. 28, 129.86.

12.31.26.333. F. E. Dickson. Drilled unused water-table well in Ogallala formation, diameter 6 inches, depth 145 feet. Highest water level 132.08 below lsd, Jan. 13, 1955; lowest 132.29 below lsd, Jan. 4, 1956. Records available: 1953-56. Jan. 4, 132.29. Bimonthly measurements will not be made in the future.

12.31.26.333a. F. E. Dickson. Drilled unused water-table well in Ogallala formation, diameter 8 inches, depth 145 feet. Highest water level 130.40 below lsd, Jan. 15, 1954; lowest 130.78 below lsd, July 27, 1953. Records available: 1953-56 Jan. 4, 130.69; Mar. 13, 130.62; May 8, 130.64; July 30, 130.58; Sept. 10, 130.59; Nov. 28, 130.55. Bimonthly measurements will not be made in the future.

12.34.11.413. A. D. Jones Estate. Drilled unused water-table well in Ogallala formation, diameter 15 inches, depth 87 feet. Highest water level 29.57 below lsd, May 24, 1949; lowest 32.13 below lsd, Sept. 27, 1955. Records available: 1949-56. Jan. 12, 31.45; Mar. 13, 31.42; May 8, 31.41; July 30, 31.43; Sept. 10, 31.48; Nov. 28; 31.65.

12.36.24.434a. Jerry Clay. Drilled domestic water-table well in Ogallala formation, diameter 6 inches. Highest water level 22.55 below lsd, Jan. 6, 1956; lowest 25.08 below lsd, Sept. 16, 1954. Records available: 1947-56. Jan. 6, 22.55; Mar. 15, 24.30; May 11, 24.35; July 30, 24.55; Sept. 10, 24.54, pumped recently; Nov. 26, 24.37.

12.36.29.241. E. D. Holt. Drilled unused domestic water-table well in Ogallala formation, diameter 6 inches, depth 50 feet. Highest water level 27.35 below lsd, Mar 13, 1956; lowest 28.93 below lsd, Sept. 26, 1955. Records available: 1954-56.

Date	Water level	Date	Water level	Date	Water level
July 16, 1954	28.29	May 31, 1955	28.58	Mar. 13, 1956	27.35
Sept. 16	28.49	July 19	28.73	May 11	27.38
Nov. 12	28.36	Sept. 26	28.93	July 30	27.60
Jan. 13, 1955	28.30	Nov. 30	27.76	Sept. 10	27.80
Mar. 18	28.41	Jan. 12, 1956	27.55	Nov. 28	27.83

13.35.2.111a. Drilled unused water-table in Ogallala formation. Highest water level 26.43 below lsd, Nov. 30, 1955; lowest 28.69 below lsd, May 31, 1955. Records available: 1953.56. Jan. 12, 26.53; Mar. 13, 26.76; May 11, 27.10; July 30, 27.28; Sept. 10, 27.40; Nov. 28, 27.52.

13.37.7.234. W. D. Patton. Drilled unused water-table well in Ogallala formation, diameter 6 inches. Highest water level 29.56 below lsd, Mar. 27, Nov. 15, 1947; lowest 33.28 below lsd, Nov. 26, 1956. Records available: 1945-56. Jan. 6, 31.14; Mar. 15, 32.00; May 11, 32.14; July 30, 32.70; Sept. 10, 32.95; Nov. 26, 33.28.

13.37.13.132. A. M. Brownfield. Drilled unused water-table well in Ogallala formation, diameter 8 inches, depth 42 feet. Highest water level 25.46 below lsd, Aug. 12, 1941; lowest 32.34 below lsd, Sept. 26, 1955. Records available: 1930-56. Jan. 7, 28.63; Mar. 15, 29.69; May 11, 30.30; July 30, 31.04; Sept. 10, 31.39; Nov. 26, 31.95.

14.35.33.433. W. A. Anderson. Drilled unused water-table well in Ogallala formation, diameter 6 inches, depth 62 feet. Land-surface datum is 4,013.59 feet above msl. Highest water level 39.65 below lsd, May 21, July 25, 1951; Jan. 9, May 24, 1952; lowest 44.42 below lsd, Nov. 27, 1956. Records available: 1929-56. Jan. 11, 43.63; Mar. 16, 43.57; May 12, 43.60; July 27, 43.80; Sept. 8, 43.98; Nov. 27, 44.42.

14.36.4.111. Lewis Beaman. Drilled domestic water-table well in Ogallala formation, diameter 6 inches. Highest water level 42.73 below lsd, Mar. 23, 1949; lowest 65.37 below lsd, Sept. 10, 1956. Records available: 1949-56. Jan. 9, 58.40; Mar. 13, 57.45; May 10, 58.74; July 30, 62.48; Sept. 10, 65.37; Nov. 26, 61.58.

14.36.13.211. Mrs. Mattie Field. Drilled unused water-table well in Ogallala formation, diameter 12 inches, depth 87 feet. Land-surface datum is 3,904.59 feet above msl. Highest water level 35.74 below lsd, Jan. 30, May 24, 1946; lowest 46.75 below lsd, Nov. 26, 1956. Records available: 1929-56. Jan. 9, 45.62; Mar. 13, 45.74; May 10, 45.92; July 27, 46.20; Sept. 10, 46.40; Nov. 26, 46.75.

14.37.15.222. O. A. Pope. Drilled unused irrigation water-table well in Ogallala formation, diameter 16 inches, depth 140 feet. Highest water level 53.89 below lsd, Mar. 23, 1953; lowest 81.69 below lsd, July 18, 1955. Records available: 1953-56. Jan. 6, 64.17; Mar. 13, 62,28; May 11, 87.70, nearby well being pumped; July 27, 95.50, nearby well pumped recently; Sept. 10, 95.03, nearby well being pumped; Nov. 27, 68.45.

14.37.31.333. T. N. and E. N. Miller. Drilled irrigation water-table well in Ogallala formation, diameter 16 inches, reported depth 130 feet. Highest water level 43.59 below lsd, Mar. 21, 1949; lowest 71.96 below lsd, Sept. 10, 1953. Records available: 1949-56. Jan. 10, 57.28; Mar. 13, 55.75; May 10, 56.95; July 27, 90.95, pumping; Sept. 10, 71.81; Nov. 27, 59.40.

14.38.21.311. Claude Cox. Drilled irrigation water-table well in Ogallala formation, diameter 14 inches, depth 105 feet. Highest water level 32.48 below lsd, Jan. 21, 1949; lowest 53.21 below lsd, Sept. 10, 1956. Records available: 1949-56. Jan. 9, 45.69; Mar. 13, 45.03; May 11, 45.56; July 27, 78.19, pumping; Sept. 10, 53.21; Nov. 27, 46.91.

15.36.8.111a. Gordon Gann. Drilled domestic water-table well in Ogallala formation, diameter 6 inches, depth 105 feet. Highest water level 41.33 below lsd, Mar. 23, 1949; lowest 62.05 below lsd, Sept. 23, 1955. Records available: 1949-56. Jan. 12, 56.45; Mar. 16, 66.29, pumped recently; May 12, 64.15, pumped recently; July 27, 61.84, pumped recently; Sept. 8, 63.81, pumped recently; Nov. 27, 57.67.

15.37.21.334. R. W. Dean. Drilled stock water-table well in Ogallala formation, diameter 8 inches, reported depth 80 feet. Highest water level 29.10 below lsd, July 27, 1943; lowest 56.90 below lsd, Sept. 8, 1956. Records available: 1930-56. Jan. 10, 50.25; Mar. 15, 53.78, pumping; May 10, 53.04; July 27, 61.03, pumping; Sept. 8, 56.90; Nov. 27, 56.25, pumping, possible discrepancy of a few tenths of a foot between present and previous land-surface datum.

16.35.13.112. W. T. Zuber. Drilled irrigation water-table well in Ogallala formation, diameter 12 inches, reported depth 100 feet. Highest water level 42.36 below lsd, Mar. 26, 1948; lowest 54.68 below lsd, July 15, 1955. Records available: 1948-56. Jan. 11, 50.67; Mar. 15, 50.09; May 9, 51.50; July 26, 63.84, pumping; Nov. 28, 51.60.

16.36.4.Lot 12. E. H. Byers. See table 11.

16.36.5.Lot 2. Miss Ethel Yadon. Drilled unused water-table well in Ogallala formation, diameter 16 inches, depth 97 feet. Equipped with automatic water stage recorder, November 29, 1956. This well replaces well 16.36.4.Lot 12. Highest water level 53.86 below lsd, Dec. 2, 1956; lowest 53.98 below lsd, Dec. 26, 1956. Records available: 1956.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 29	53.87	Dec. 8	53.93	Dec. 16	53.89	Dec. 24	53.95
30	53.98	9	53.92	17	53.93	25	53.95
Dec. 1	53.89	10	53.87	18	53.94	26	53.98
2	53.86	11	53.88	19	53.92	27	53.97
3	53.87	12	53.88	20	53.93	28	53.95
4	53.88	13	53.91	21	53.91	29	53.97
5	53.91	14	53.90	22	53.92	30	53.95
6	53.89	15	53.94	23	53.97	31	53.93
7	53.90						

16.37.11.111. A. J. Birkshire. Drilled irrigation water-table well in Ogallala formation, diameter 16 inches, reported depth 118 feet. Highest water level 31.93 below lsd, Jan. 23, 1949; lowest 66.03 below lsd, Sept. 8, 1956. Records available: 1949-56. Jan. 9, 55.42; Mar. 15, 53.26; May 10, 55.71; July 25, 65.03, pumped recently; Sept. 8, 66.03; Nov. 29, 57.99.

16.38.3.333. State of New Mexico. See table 12.

16.38.34.131. Dick Seaborn. Drilled irrigation water-table well in Ogallala formation, diameter 16 inches, reported depth 140 feet. Highest water level 35.06 below lsd, May 22, 1947; lowest 68.31 below lsd, Sept. 26, 1955. Records available: 1947-56. Jan. 9, 54.88; Mar. 15, 54.12; May 10, 83.40, nearby well being pumped; July 27, 88.94, nearby well being pumped; Sept. 8, 90.07, nearby well being pumped; Nov. 29, 62.17.

17.33.13.341. Potash Co. of America. See table 13.

17.33.13.434. Potash Co. of America. Drilled industrial water-table well in Ogallala formation, diameter 16 inches, depth 240 feet. Highest water level 144.18 below lsd, Nov. 17, 1948; lowest 171.23 below lsd, Nov. 18, 1952. Records available: 1948-56. Jan. 5, 161.79; May 9, 187.14, pumping; July 26, 165.30; Sept. 7, 166.04; Nov. 30, 166.55. Bimonthly measurements will not be made in the future.

17.33.26.422. Phillips Petroleum Co. (State). Drilled unused water-table well in Ogallala formation, diameter 8 inches, depth 200 feet. Highest water level 160.56 below lsd, Jan. 21, 1951; lowest 162.35 below lsd, Sept. 7, 1956. Records available: 1950-56. Jan. 5, 162.10; Mar. 14, 162.09; May 9, 162.12; July 26, 162.24; Sept. 7, 162.35. Well filled, measurement discontinued.

17.34.21.143. Duval Sulphur Potash Co. Drilled industrial water-table well in Ogallala formation, diameter 12 inches, depth 246 feet. Highest water level 112.71 below lsd, Jan. 21, 1951; lowest 125.05 below lsd, July 26, 1956. Records available: 1951-56. Jan. 5, 125.36, pumped recently; May 9, 124.47; July 26, 125.05; Sept. 7, 153.51, pumping; Nov. 30, 124.56.

17.34.35.130. Phillips Petroleum Co. Drilled unused water-table well in Ogallala formation, diameter 8 inches, depth 132 feet. Highest water level 89.81 below lsd, July 21, 1953; lowest 91.98 below lsd, Jan. 26, 1941. Records available: 1940-56. Jan. 5, 90.14; Mar. 14, 90.11; May 9, 90.12; July 26, 90.21; Sept. 6, 90.23; Nov. 30, 90.26.

17.35.35.213. Phillips Petroleum Co. Drilled unused water-table well in Ogallala formation, diameter 9 inches, depth 129 feet. Highest water level 38.60 below lsd, Jan. 16, 1948; lowest 41.45 below lsd, Jan. 26, 1941. Records available: 1940-56. Jan. 5, 39.83; Mar. 14, 39.82; May 9, 39.84; July 26, 39.93; Sept. 6, 39.94; Nov. 30, 39.93.

17.36.3.333. State of New Mexico. Drilled unused water-table well in Ogallala formation, diameter 2 inches, depth 85 feet. Highest water level 42.00 below lsd, Mar. 24, May 15, 1944; lowest 45.01 below lsd, June 18, 1939. Records available: 1939-56. Jan. 5, 43.03; Mar. 14, 42.98; May 9, 42.93; July 26, 42.85; Sept. 7, 42.84; Nov. 30, 43.83.

17.36.27.131. Fred Turner. Drilled irrigation water-table well in Ogallala formation, diameter 12 inches, depth 100 feet. Highest water level 33.00 below lsd, Sept. 23, 1949; lowest 36.52 below lsd, May 17, 1950. Records available: 1947-56. Jan. 5, 34.83; Mar. 14, 34.84; May 9, 34.87; July 26, 34.99; Sept. 6, 35.05; Nov. 30, 35.09.

17.38.7.111a. L. R. Sebings. Drilled irrigation water-table well in Ogallala formation, diameter 16 inches, reported depth 135 feet. Highest water level 35.59 below lsd, Mar. 21, 1952; lowest 52.53 below lsd, Sept. 8, 1956. Records available: 1951-56. Jan. 9, 45.54; Mar. 15, 44.08; May 10, 47.57; Sept. 8, 52.53; Nov. 29, 47.81.

17.38.34.113. W. E. Busby. Drilled irrigation water-table well in Ogallala formation, diameter 12 inches, depth 120 feet. Highest water level 24.78 below lsd, Jan. 15, 1944; lowest 31.66 below lsd, Sept. 3, 1953. Records available: 1943-56. Jan. 9, 28.94; Mar. 15, 28.99; May 10, 29.48; July 27, 29.51; Sept. 8, 29.76; Nov. 29, 30.14.

18.35.17.144. International Mineral and Chemical Corp. Drilled industrial water-table well in Ogallala formation, diameter 13 inches, depth 190 feet. Highest water level 69.41 below lsd, Sept. 14, 1954; lowest 69.54 below lsd, Mar. 2, May 5, 1954. Records available: 1953-56. Jan. 5, 69.49; Mar. 14, 69.46; May 9, 69.50; July 26, 69.52; Sept. 6, 69.47; Nov. 30, 69.49.

18.35.20.144. International Mineral and Chemical Corp. Drilled industrial water-table well in Ogallala formation, diameter 13 inches, depth 175 feet. Highest water level 75.70 below lsd, Mar. 14, 1956; lowest 75.87 below lsd, May 5, 1954. Records available: 1953-56. Jan. 5, 75.73; Mar. 14, 75.70; May 9, 75.78; July 26, 75.79; Sept. 6, 75.74; Nov. 30, 75.78. Bimonthly measurements will not be made in the future.

18.35.20.214. International Mineral and Chemical Corp. Drilled industrial water-table well in Ogallala formation, diameter 12 inches, depth 170 feet. Highest water level 72.18 below lsd, Jan. 5, Mar. 14, 1956; lowest 72.26 below lsd, Mar. 2, May 5, 1954. Records available: 1953-56. Jan. 5, 72.18; Mar. 14, 72.18; May 9, 72.22; July 26, 72.21; Sept. 6, 72.21; Nov. 30, 72.23. Bimonthly measurements will not be made in the future.

18.36.27.111. State of New Mexico. Drilled unused water-table well in Ogallala formation, diameter 6 inches, depth 54 feet. Highest water level 38.09 below lsd, Oct. 23, 1942; lowest 41.75 below lsd, Mar. 15, 1941. Records available: 1939-56. Jan. 5, 40.18; Mar. 14, 40.15; May 9, 40.25; July 26, 40.45; Nov. 30, 40.57.

18.38.15.241. Glenn Staley. Drilled unused water-table well in Ogallala formation, diameter 6 inches, depth 107 feet. Highest water level 26.65 below lsd, Nov. 4-7, 1942; lowest 42.90 below lsd, July 13, 1954. Records available: 1940-56. Jan. 6, 34.00; Mar. 15, 34.15; May 10, 36.87; July 27, 38.77; Sept. 8, 38.83; Nov. 29, 36.25.

18.38.27.113. City of Hobbs. Drilled well equipped with turbine pump, electric motor, located one block east of State Highway 18, depth 212 feet. Highest water level 42.94 below lsd, Mar. 1, 1954; lowest 60.83 below lsd, July 15, 1954. Records available: 1954-56. Jan. 6, 45.00; Mar. 14, 45.10; May 12, 66.88, pumping; July 26, 71.97, pumping; Sept. 8, 71.83, pumping; Nov. 29, 49.36.

18.38.30.223. Mrs. Sadie Davis. Drilled unused water-table well in Ogallala formation, diameter 6 inches, depth 50 feet. Highest water level 23.01 below lsd, Nov. 17, 1947; lowest 29.82 below lsd, Nov. 1932. Records available: 1931-56. Jan. 6, 25.65; Mar. 14, 25.99; May 9, 26.40; July 26, 26.90; Sept. 6, 27.02; Nov. 29, 27.31.

19.37.32.241. Mrs. E. A. Anderson. Dug unused water-table well in Ogallala formation, diameter 8 feet, depth 28 feet. Highest water level 10.12 below lsd, Nov. 28, 1941; lowest 13.89 below lsd, June 17, 1934. Records available: 1929-56. Jan. 6, 12.20; Mar. 14, 12.26, nearby well being pumped; May 9, 12.24; July 26, 12.44; Sept. 6, 12.47; Nov. 30, 12.32.

20.35.1.221. J. L. Wood. Dug unused water-table well in Ogallala formation, size 4 by 4 feet, depth 28 feet. Highest water level 19.38 below lsd, July 28, 1943; lowest 25.68 below lsd, Sept. 18, 1936, Nov. 30, 1956. Records available: 1929-56. Jan. 5, 25.33; Mar. 14, 25.44; May 9, 25.50; July 26, 25.54; Sept. 6, 25.59; Nov. 30, 25.68.

20.37.9.110. W. H. Laughlin. Dug and drilled water-table well in Ogallala formation, size 4 by 6 feet, depth 53 feet. Highest water level 26.89 below lsd, Mar. 30, 1943; lowest 47.54 below lsd, Aug. 12, 1935. Records available: 1929-56. Jan. 6, 32.69; Mar. 14, 32.34; May 9, 32.25; July 26, 33.29; Sept. 6, 33.69; Nov. 30, 33.54.

Table 11.--Well 16.36.4. Lot 12. E. H. Byers. Drilled unused water-table well in Ogallala formation, diameter 8 inches, depth 65 feet. Water stage recorder moved to replacement well 16.36.5. Lot 2, November 29, 1956. Highest water level 43.35 below lsd, Mar. 14, 1943; lowest 59.63 below lsd, Sept. 28, 29, 1956. Records available 1934-56.

Daily highest water level from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-	57.53	57.24	57.35	58.31	58.50	58.72	59.08	59.53	-	-	-
2	-	-	57.24	57.35	58.36	58.47	58.71	59.09	59.55	-	-	-
3	57.71	-	-	57.40	58.42	58.46	58.69	59.09	59.56	-	-	-
4	57.76	-	-	57.45	58.45	-	58.68	59.09	59.56	-	-	-
5	57.81	-	-	-	58.45	-	58.67	59.09	59.56	-	-	-
6	57.83	-	-	-	58.44	-	58.67	59.09	58.56	-	-	-
7	57.87	-	-	-	-	-	58.67	59.09	59.57	-	-	-
8	57.87	-	-	57.75	58.42	58.38	58.68	59.10	59.57	-	-	-
9	57.85	-	-	57.74	58.40	58.37	58.70	59.11	59.57	-	-	-
10	57.83	-	57.17	57.75	58.40	58.34	58.73	59.11	59.57	-	-	-
11	57.81	-	57.17	57.78	58.39	58.34	58.84	59.12	59.57	-	-	-
12	57.80	-	57.16	57.77	58.38	58.35	58.90	59.13	59.57	-	-	-
13	57.77	-	57.14	57.80	58.39	58.46	58.94	59.13	59.57	-	-	-
14	57.75	57.39	57.13	57.85	58.38	58.51	58.97	59.16	59.57	-	-	-
15	57.73	57.37	57.14	57.91	58.38	58.53	59.02	59.20	59.57	-	-	-
16	57.71	57.37	57.13	57.96	58.37	58.61	59.05	59.25	59.58	-	-	-
17	57.71	57.36	57.12	58.02	58.37	-	59.08	59.29	59.59	-	-	-
18	57.69	57.35	57.11	57.99	58.35	-	59.10	59.34	59.60	-	-	-
19	57.68	57.33	57.10	57.94	58.35	-	59.12	59.39	59.61	-	-	-
20	57.67	57.33	57.10	57.93	58.35	-	59.13	59.41	59.61	e59.8	-	-
21	57.66	57.33	57.10	58.01	58.36	-	59.14	59.42	59.61	-	-	-
22	57.64	57.31	57.08	57.99	58.39	-	59.13	e59.44	59.61	-	-	-
23	57.62	57.31	57.08	57.95	58.48	-	59.13	e59.45	59.61	-	-	-
24	57.61	57.29	57.07	57.95	58.56	-	59.13	e59.47	59.62	-	-	-
25	57.59	57.27	57.05	57.99	58.60	-	59.09	e58.48	59.62	-	-	-
26	57.59	57.27	57.04	58.04	58.61	-	59.08	59.50	59.62	-	-	-
27	57.58	57.25	57.05	58.09	58.60	-	59.08	59.51	59.62	-	h59.18	-
28	57.57	57.26	57.10	58.15	58.59	-	59.08	59.52	59.63	-	-	-
29	57.57	57.26	57.15	58.22	58.56	-	59.08	59.52	59.63	-	-	-
30	57.55		57.22	58.25	58.54	-	59.08	59.52	-	-	-	-
31	57.53		57.30		58.52		59.08	59.52		-		-

e Estimated.
h Tape measurement.

Table 12.--Well 16.38.3.333. State of New Mexico. Test Hole No. 9. Drilled test hole water-table in Ogallala formation, diameter 8 inches, depth 107 feet. Well cased to 100 feet. Highest water level 24.44 below lsd, May 29 to June 25, 1955; lowest 25.63 below lsd, Dec. 6-31, 1956. Records available 1953-56.

Daily highest water level from recorder graph, 1956

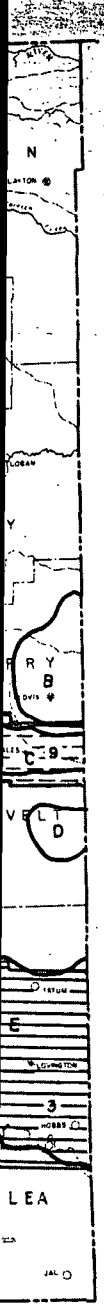
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	24.58	24.65	24.70	24.92	25.04	25.06	-	25.32	25.27	25.42	25.55	25.62
2	24.58	24.65	24.71	24.92	25.04	25.06	-	25.30	25.27	25.42	25.55	25.62
3	24.59	24.65	24.71	24.93	25.04	25.07	-	25.30	25.28	25.43	25.55	25.62
4	24.59	24.65	24.71	24.94	25.04	25.07	-	25.30	25.28	25.43	25.55	25.62
5	24.59	24.66	24.72	24.94	25.04	25.07	-	25.30	25.29	25.43	25.56	25.62
6	24.59	24.66	24.72	24.95	25.05	25.07	-	25.30	25.29	25.44	25.56	25.63
7	24.59	24.66	24.72	24.95	25.05	25.07	-	25.30	25.29	25.44	25.56	25.63
8	24.59	24.66	24.73	24.96	25.05	25.07	-	25.30	25.30	25.45	25.57	25.63
9	24.60	24.66	24.73	24.96	25.05	25.09	-	25.30	25.29	25.45	25.57	25.63
10	25.60	24.66	24.74	24.97	25.05	25.09	-	25.29	25.29	25.46	25.57	25.63
11	24.61	24.67	24.74	24.97	25.05	25.09	25.30	25.28	25.29	25.46	25.57	25.63
12	24.61	24.67	24.74	24.98	250.05	25.09	25.29	25.27	25.29	25.46	25.57	25.63
13	24.61	24.67	24.75	24.98	25.05	-	25.29	25.26	25.29	25.47	25.57	25.63
14	24.61	24.67	24.75	24.99	25.05	-	25.29	25.26	25.29	25.47	25.57	25.63
15	24.61	24.67	24.76	24.99	25.05	-	25.29	25.25	25.30	25.48	25.57	25.63
16	24.62	24.67	24.77	25.00	25.05	-	25.29	25.25	25.30	25.48	25.58	25.63
17	24.62	24.67	24.78	25.00	25.05	-	25.30	25.25	25.31	25.48	25.58	25.63
18	24.62	24.67	24.79	25.00	25.05	-	25.30	25.24	25.33	25.49	25.58	25.63
19	24.62	24.68	24.80	25.01	25.05	-	25.30	25.24	25.33	25.49	25.58	25.63
20	24.62	24.68	24.81	25.01	25.05	-	25.31	25.24	25.33	25.50	25.58	25.63
21	24.62	24.68	24.82	25.02	25.05	-	25.32	25.22	25.33	25.51	25.58	25.63
22	24.63	24.68	24.83	25.02	25.05	-	25.32	25.22	25.35	25.51	25.59	25.63
23	24.63	24.68	24.84	25.02	25.05	-	25.32	25.22	25.36	25.52	25.59	25.63
24	24.63	24.69	24.85	25.03	25.05	-	25.32	25.22	25.36	25.52	25.60	25.63
25	24.63	24.69	24.86	25.03	25.05	-	25.33	25.22	25.37	25.53	25.60	25.63
26	24.64	24.69	24.87	25.03	25.05	-	25.33	25.23	25.37	25.53	25.60	25.63
27	24.64	24.69	24.88	25.03	25.05	-	25.33	25.24	25.40	25.53	25.61	25.63
28	24.64	24.70	24.89	25.03	25.00	-	25.34	25.25	25.40	25.54	25.61	25.63
29	24.64	24.70	24.90	25.04	25.05	-	25.34	25.26	25.40	25.54	25.62	25.63
30	24.64		24.91	25.04	25.06	-	25.34	25.27	25.41	25.54	25.62	25.63
31	24.65		24.91		25.06		25.33	25.27		25.55		25.63

Table 15.--Well 17.33.15.341. Potash Co. of America. Drilled water-table well in Ogallala formation, diameter 6 inches, depth 252 feet. Cased to 252. Highest water level 146 below lsd, Jan. 21, 1953; lowest 152.85 below lsd, Dec. 17, 1956. Records available 1952-56.

Daily highest water level from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	151.33	151.77	152.02	151.69	151.77	152.11	152.33	152.35	152.39	152.42	e152.59	152.75
2	151.47	151.81	151.92	151.68	151.79	152.12	152.29	152.38	152.36	152.46	152.68	152.73
3	151.46	151.79	151.92	151.75	151.78	152.17	-	152.39	152.37	152.47	152.74	152.72
4	151.36	151.79	151.87	151.68	151.80	152.15	-	152.35	152.39	152.54	152.71	152.76
5	151.44	151.78	151.86	151.70	151.86	152.14	-	152.32	152.40	152.54	152.67	152.76
6	151.48	151.85	151.83	151.81	151.92	152.18	-	152.33	152.42	152.59	152.68	152.73
7	151.47	151.82	151.84	151.72	151.90	152.22	-	152.32	152.43	152.55	152.72	152.71
8	151.45	151.91	151.82	151.74	151.85	152.14	-	152.36	152.48	152.54	152.66	152.73
9	151.50	151.83	151.83	151.87	151.86	152.13	152.24	152.40	152.49	152.58	152.65	152.63
10	151.55	151.88	151.89	151.75	151.91	152.12	152.21	152.37	152.46	152.54	152.59	152.50
11	151.56	151.86	151.90	151.82	151.86	152.14	152.24	152.40	152.47	152.52	152.60	152.58
12	151.57	151.88	151.91	151.82	151.76	152.13	152.27	152.43	152.48	152.50	152.65	152.65
13	151.50	151.93	151.89	151.75	151.84	152.12	152.33	152.44	152.50	152.53	152.55	152.66
14	151.56	151.94	151.92	151.70	151.83	152.17	152.34	152.41	152.45	152.47	152.60	152.68
15	151.62	151.96	152.00	151.80	151.87	152.22	152.34	152.38	152.40	152.50	152.78	152.82
16	151.55	151.95	151.90	151.73	151.81	152.26	152.33	152.39	152.43	152.48	152.64	152.71
17	151.62	151.97	151.82	151.77	151.86	152.30	152.31	152.39	152.48	152.47	152.68	152.85
18	151.69	152.03	151.85	151.79	151.84	152.28	152.33	152.38	152.37	152.55	152.68	152.75
19	151.62	152.07	151.72	151.81	151.91	152.24	152.34	152.36	152.42	152.59	152.69	152.77
20	151.69	152.06	151.76	151.80	151.93	152.21	152.29	152.34	152.44	152.64	152.77	152.70
21	151.72	151.98	151.86	151.76	152.00	152.24	152.27	152.32	152.45	152.59	152.77	152.67
22	151.71	151.97	151.74	151.85	-	152.28	152.29	152.34	152.54	152.64	152.66	152.70
23	151.67	151.95	151.77	151.82	-	152.25	-	152.43	152.56	152.55	152.65	152.72
24	151.73	151.96	151.81	151.87	-	152.19	-	152.43	152.53	152.55	152.63	152.74
25	151.60	152.02	151.74	151.86	-	152.20	-	152.43	152.53	152.69	152.65	152.67
26	151.65	151.94	151.74	151.80	-	152.26	152.33	152.43	152.49	152.56	152.63	152.65
27	151.64	152.12	151.80	151.80	152.01	152.20	152.36	152.43	152.52	152.53	152.56	152.65
28	151.69	152.05	151.74	151.83	152.04	152.20	152.33	152.48	152.47	152.53	152.66	152.72
29	151.71	151.95	151.77	151.77	152.07	152.22	152.35	152.45	152.48	152.53	152.65	152.68
30	151.83		151.69	151.76	152.11	152.28	152.35	152.42	152.44	152.61	152.70	152.67
31	151.66		151.70		152.15		152.36	152.50		152.51		152.76

e Estimated.



TECHNICAL REPORT 22

New Mexico State Engineer
Santa Fe, N. Mex.

GROUND-WATER LEVELS IN NEW MEXICO, 1957

By

H. O. Reeder and Others
U. S. Geological Survey

1961

TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY

H. O. Reeder

Ground water for irrigation, industrial, and municipal use is obtained from the Ogallala formation in the Tatum-Lovington-Hobbs area, a part of the High Plains, in southeastern New Mexico. The Lea County Underground Water Basin, as extended by order to the State Engineer on October 1, 1952, includes 2,180 square miles. Water levels were measured in 198 wells in January 1957 and in 190 wells in January 1958. Measurements in January 1958 and changes in 1957 are listed in table 10. Water levels were measured in 37 of these wells at intervals in 1957 and are listed following table 10. A total of 307 measurements were made during the year. Recording gages were maintained on the following wells: 16.36.5.Lot 2, a mile northwest of Lovington (table 11); 16.38.3.333, about 12 miles east of Lovington (table 12); and 17.33.13.341, about 17 miles southwest of Lovington (table 13). The changes in water levels in 1957 (table 10) were used in preparing figure 6 which shows the magnitude and areal extent of the changes.

Precipitation was above normal throughout most of the area in 1957 but was less than normal at Lovington. Precipitation totaled 18.04 inches at Tatum, 12.79 inches at Lovington, and 19.20 inches at Hobbs; and was estimated to be 15.36 inches at Pearl (15 miles west of Hobbs). Precipitation during the growing season, April through September, was 103 to 115 percent of normal in most of the area but was 65 percent of normal at Lovington. About 70 percent of the annual precipitation at Tatum, Hobbs, and Pearl, and 60 percent at Lovington, occurred during the growing season.

It is estimated that about 80,000 acres of land was irrigated in 1957. Records of electric-power consumption of 225 irrigation pumps, for which comparable records are available for 1956 and 1957, and pump ratings indicate that 140,000 acre-feet of water was pumped for irrigation in 1957 as compared with 160,000 acre-feet in 1956. Less water was pumped because of the greater precipitation in 1957. Municipal pumpage in Lovington and Hobbs was about the same in 1957 as in 1956, based on metered use plus an estimate of unmetered use. Ground water pumped for municipal, stock, and industrial needs was estimated to be 18,600 acre-feet in 1957, the same as in 1956.

In general, the net declines in 1957 were smaller and less extensive areally than in 1956 even though maximum net declines measured in local areas were somewhat greater in 1957. Water levels in 1957 declined more than 2 feet under five small areas totaling 40 square miles from northeast of Prairieview to north of Hobbs. Net water-level declines of more than a foot occurred under 230 square miles, more than 2 feet under 40 square miles, more than 3 feet under 5 square miles, and more

than 4 feet under 1 square mile. Water levels in 1956 declined 1, 2, and 3 feet under 475 square miles, 55 square miles, and less than 1 square mile, respectively. The maximum net decline measured in 1957 (4.7 feet) was in a well about 12 miles east of Lovington near a well in an area of new ground-water development. Small rises in 1957 were noted east and west of Tatum, about 5 miles northwest of Lovington, and from around Hobbs westward. More precipitation in 1957 than in 1956 reduced the amount of ground water required for irrigation. From 1.7 to 2.6 times more precipitation occurred in 1957 than in 1956.

Water levels reached record lows in most observation wells. As the ground water is being pumped primarily from storage, declines of water levels may be expected to continue as pumping continues.

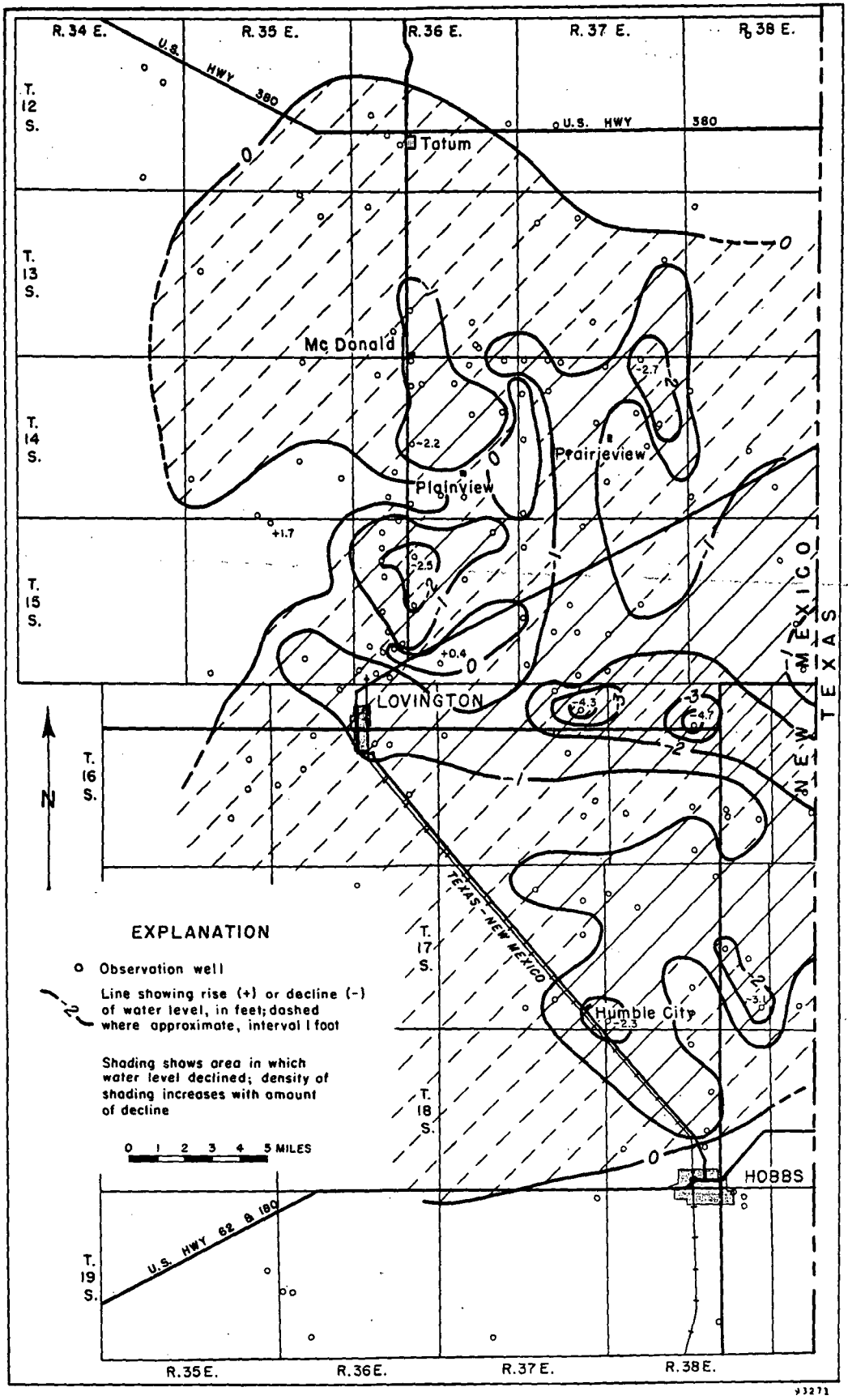


FIGURE 6. Change of ground-water level from January 1957 to January 1958 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1958,

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1958, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1957 TO JANUARY 1958, IN FEET

(* Additional measurements and other data for this well are listed in following tabulation of seasonal measurements or daily records of water level)

Location number	Name	Water levels							Record	
		Jan. 1958		Change	Highest		Lowest		Began	Years missing
		Level	Day	1957-58	Level	Year	Level	Year		
11.33.25.442 *	R. W. and Nancy S. Epperson	33.77	8	-0.21	33.56	57	33.88	54	54	
12.31.23.333 *	F. E. Dickson	129.78	8	+ .12	129.78	58	130.37	55	54	
26.333	do.	132.05	8	0	132.05	w57	132.29	56	54	
26.333a	do.	130.54	8	0	130.40	54	130.69	56	54	
12.34.11.413 *	A. D. Jones Estate	31.98	18	- .23	29.78	50	31.98	58	50	
13.112	do.	37.46	18	+2.49	29.68	48	41.81	55	48	54,56
35.411	do.	38.35	18	+2.60	35.62	49	48.77	55	48	
12.36.19.223	O. V. Fisher	a31.06	18	-1.22	22.13	43	a32.05	41	39	
24.434	J. C. Clay	25.27	17	-2.01	+1.32	42	25.27	58	41	49,52,54
24.434a *	do.	a24.36	17	- .09	22.55	56	24.85	55	48	
29.112	E. D. Holt	33.85	18	- .47	k27.69	44	k34.24	41	30	55
29.241 *	do.	28.28	18	- .47	27.55	56	28.30	55	55	
12.37.20.331	W. O. Dunlap, Jr.	(Measurement discontinued)			+15.24	43	22.13	53	41	49,54-58
20.343	do.	24.28	17	+1.41	24.28	58	26.63	55	54	
12.38.4.312	G. C. Copeland	41.84	17	- .52	39.15	43	43.35	41	41	
13.32.25.214		143.04	8	+ .05	143.04	58	143.34	55	54	
25.214a		143.06	8	+ .03	143.06	58	143.33	55	54	
13.35.2.111a *		28.38	17	- .77	26.53	56	28.38	58	54	
11.222	Ashley Green	46.99	17	-1.52	29.14	43	47.29	55	30	32-38
19.211	Clara Elkins	49.90	17	-1.76	44.75	46	49.90	58	41	51,54
13.36.6.413	R. W. Duncan	54.33	17	+1.47	44.94	48	57.25	54	48	
6.413a	do.	53.97	17	+1.65	51.88	53	57.49	54	53	
26.324	Mrs. Iona McClish	58.10	18	- .47	42.24	49	58.10	58	49	
28.113	M. R. Anderson	56.50	10	-1.75	44.77	49	56.50	58	49	

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM LOVINGTON HOBBS AREA, LEA COUNTY, IN JANUARY 1958 - Continued

Location number		Name	Water levels: Jan. 1958 Level	Day	Change 1957-58	Highest Level	Year	Lowest Level	Year	Record: Began	Years missing
13.36.32.211		H. N. McDaniels	58.31	17	+0.64	42.76	50	58.95	57	49	56
33.321		L. V. Beaman	-	-	-	40.16	47	61.85	56	39	58
35.324		M. J. McClish	68.87	18	+ .25	53.74	52	69.12	57	52	
35.413		do.	63.02	18	- .87	36.07	45	63.02	58	39	52
13.37.4.242		Brady Lowe	42.03	17	+1.37	37.74	47	43.85	56	39	
4.422		do.	37.61	17	+1.62	33.83	43	39.53	55	40	42,48
7.234	*	W. D. Patton	33.84	17	- .55	29.57	48	33.84	58	47	
9.111		A. P. Breckon	39.23	17	- .28	36.33	48	39.23	58	48	
13.132	*	Mr. Taylor	33.52	17	- .99	26.46	42	33.52	58	30	50,53
28.413		Mr. Dorn	49.01	11	+ .45	31.70	45	49.46	57	45	
13.38.6.341		J. W. Anderson	60.28	17	+1.61	43.02	45	61.89	57	40	
14.33.34.344		Warren Petroleum Corp.	(Measurement discontinued)			103.80	54	104.44	55	54	56-58
14.35.2.112			38.79	17	- .81	37.06	56	38.79	58	54	55
23.313		Mr. Anderson	37.80	16	+ .18	37.80	58	40.61	55	54	
25.241		M. J. Wiggins	49.82	16	+ .35	43.30	50	51.48	56	49	
30.134		W. A. Anderson	47.12	16	- .37	44.97	51	48.93	41	39	
33.433	*	do.	44.14	16	+ .27	39.65	52	44.41	57	30	
14.36.1.211		H. L. Wade	62.01	11	-2.13	33.80	48	62.01	58	48	53
2.113		C. E. Renshaw	71.01	11	+ .02	48.44	50	71.03	57	49	
4.111	*	Lewis Beaman	61.92	10	-1.34	43.14	50	61.92	58	50	
6.421		S. A. and W. B. Richardson	50.48	17	- .23	39.03	44	50.48	58	40	45,54,56
9.111		A. C. Drake	58.36	10	-1.00	38.36	44	58.36	58	39	
9.211		O. M. Woodward	64.62	11	-2.04	40.46	43	64.62	58	39	53
10.212			68.71	11	-1.73	47.98	49	68.71	58	49	
13.211	*	Mrs. Mattie Field	48.07	11	-1.17	35.74	46	48.07	58	30	

See footnotes at end of table.

HOBBS AREA, LEA COUNTY, IN JANUARY 1958 - Continued

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1958 - Continued

Location number		Name	Water levels: Jan. 1958 Level	Day	Change 1957-58	Highest Level	Year	Lowest Level	Year	Record: Began	Years missing
14.36.14.112		Mrs. Mattie Field	50.78	11	-1.51	40.75	46	50.78	58	39	53
21.111		Curtis Patterson	52.48	10	-2.21	42.69	49	52.48	58	49	
29.211		Mark Vaughn	49.89	18	- .03	44.64	51	51.57	56	50	
32.121		H. H. Caldwell	60.25	16	+ .50	53.58	49	62.10	52	49	
33.131		Weldon Lair	67.11	10	+1.57	56.92	50	68.68	57	49	
34.111		Shelby Battles	66.21	16	+ .14	51.80	50	66.35	57	50	
35.111		Bert Wright	64.52	16	- .24	48.36	49	64.68	55	49	51,52,56
14.37.2.121		H. R. Hobbs	54.41	11	-2.69	34.47	51	54.41	58	51	
3.113a		Lois C. Hobbs	56.59	11	-1.04	44.81	52	56.59	58	52	
5.111		S. G. Knoll	61.74	11	-1.22	33.34	50	61.74	58	49	
5.211		-	51.82	11	- .35	31.76	49	51.82	58	49	
6.111		E. L. Harbison	60.92	11	-2.37	37.38	49	60.92	58	49	
7.311		do.	58.69	11	+1.00	42.82	49	59.64	57	49	53
8.113		do.	54.76	11	-1.99	37.93	50	54.76	58	49	
13.311		C. H. Spears	64.15	17	-2.28	35.57	49	64.15	58	49	
14.111		M. E. Powell	66.78	11	- .18	36.12	49	66.78	58	49	50
15.222	*	O. A. Pope	(Measurement discontinued)			59.44	54	66.58	57	54	58
16.421		School land	48.63	11	-1.58	28.86	43	48.63	58	39	
19.111		A. B. Hennington	52.08	11	+1.13	41.15	50	53.21	57	49	
20.412		G. O. Durham	56.12	11	-1.62	33.30	45	56.12	58	40	
23.213		Lee Whitman	63.35	11	- .27	33.90	47	63.35	58	46	
27.311		J. R. Fort	55.66	11	- .78	35.13	48	55.66	58	48	
31.333	*	T. N. and E. N. Miller	57.73	16	+ .31	44.80	50	58.04	57	50	
14.38.7.113		B. F. Heidel	57.95	11	- .97	40.73	50	57.95	58	50	
21.311	*	Claude Cox	46.46	16	- .03	32.48	49	46.46	58	49	
27.313		Guy Cave	56.60	16	-2.61	38.30	51	56.60	58	51	54
31.111		W. J. and D. O. Aldridge	46.20	16	- .86	37.45	50	46.20	58	49	
15.31.23.311		-	249.08	8	- .59	244.97	54	249.08	58	54	

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1958 - Continued

Location number	Name	Water levels: Jan. 1958 Level	Day	Change 1957-58	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Years missing
15.33.14.100		a101.70	8	+1.85	a101.70	58	a103.55	57	54	55
15.35.3.111	J. F. Watson	44.35	16	+1.66	37.30	52	48.08	56	52	
31.422	Joe Price	56.51	16	+ .31	54.14	51	56.82	57	49	54
35.112	Mr. Jennings	49.99	16	-1.68	39.60	43	49.99	58	40	
35.344	Mr. Anderson	(Measurement discontinued)			44.57	49	52.40	57	49	58
15.36.1.311	Mrs. Ida F. Allen	gj58.58	11	-1.93	43.60	49	gj58.58	58	49	
5.Lot 2	J. P. Caudill	66.92	10	-1.52	52.73	51	66.92	58	50	
5.311	do.	56.72	10	-1.55	40.02	49	56.72	58	49	
8.111	L. A. Beaty	(Measurement discontinued)			39.95	49	56.97	56	49	53,57,58
8.111a *	do.	58.19	10	-1.45	43.37	50	58.19	58	50	51,53
8.311	M. G. Adams	59.71	10	-2.03	40.13	48	59.71	58	48	
9.311	E. L. and S. L. Sibley	j67.56	10	-2.49	44.30	49	j67.56	58	49	
14.131	Mrs. F. O. Graham	51.37	18	- .57	42.38	45	51.37	58	41	46-51,54
17.111	M. G. Adams	58.08	10	- .25	44.47	50	58.08	58	49	
20.133	E. B. Parsons	61.53	16	-1.03	45.25	49	61.53	58	49	
21.111	Marvin McLish	62.23	10	-2.13	42.55	49	62.23	58	49	
28.133	J. R. and Boss Hale	65.71	10	-	44.53	47	65.71	58	47	57
29.112	G. A, Fisher	62.47	10	- .99	44.90	48	62.47	58	48	
29.331	D. A. Hudgens	58.99	10	- .47	47.46	51	58.99	58	49	
29.410a	do.	61.51	11	+ .14	47.72	50	61.65	57	50	51
29.421	H. R. Fleming	63.49	11	-1.01	47.69	48	63.49	58	48	53,55
30.411	Ray Short	56.45	16	- .62	46.14	51	56.45	58	49	
31.311	O. A. Payton	57.53	15	-1.14	47.35	48	57.53	58	48	
31.423	W. G. Turnipseed	62.53	10	-1.71	51.05	49	62.53	58	49	52
32.323	Hobdy Gann	64.88	10	-1.44	53.60	49	64.88	58	49	

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1958 - Continued

Location number	Name	Water levels: Jan. 1958 Level	Day	Change 1957-58	Highest Level	Year	Lowest Level	Year	Record: Began	Years missing
15.36.33.211	Spencer-Nymeyer	66.62	10	-	49.14	47	72.54	54	47	57
34.111	Fred Nymeyer	56.53	10	+0.36	44.12	48	60.19	54	48	
15.37.4.113	Fred D. Harkey	51.75	17	-1.53	37.10	50	51.75	58	50	
7.111	D. H. Crockett	58.74	17	- .60	46.13	50	58.74	58	50	
19.311	Otto Dean	48.12	10	+ .15	41.09	50	48.92	55	48	51,53
20.221	J. E. Steele	52.38	11	-1.39	35.30	50	52.38	58	49	
21.334 *	R. W. Dean	a57.93	10	-	29.20	45	50.25	56	31	49,57
23.112	Nellie Fort	40.86	10	- .72	35.59	51	40.86	58	51	
27.111	C. L. Naul	49.69	10	-1.21	29.38	43	49.69	58	42	45
28.111	E. T. Wilks	51.76	10	-1.82	30.27	50	51.76	58	50	
29.111	do.	53.17	10	-1.65	39.08	51	53.17	58	51	
31.132	W. R. Dean	47.93	10	- .83	35.04	50	47.93	58	49	
33.313	E. B. Yarbro	59.22	9	- .45	35.97	50	59.22	58	50	
34.133	O. S. Bigham	46.72	10	-2.12	30.64	50	46.72	58	49	
15.38.10.321	Brady Lowe	37.42	16	-1.18	31.84	51	37.42	58	51	
22.441	Troy C. Fort	36.08	16	-1.01	28.72	42	36.08	58	40	54
35.133	J. W. Waits	43.41	16	- .90	37.61	50	43.41	58	50	
16.35.13.112 *	W. T. Zuber	52.03	15	-1.00	43.38	49	52.03	58	49	
24.111	T. G. Hester	52.65	15	- .55	44.09	51	52.65	58	51	
26.211	Homer Youngblood	41.64	15	- .22	35.37	49	41.95	55	49	
16.36.1.431	Lorene Easley	-	-	-	39.65	45	51.34	56	39	58
4.Lot 2	W. L. Barbee	61.61	15	-1.57	46.59	47	61.61	58	47	
4.Lot 12	E. H. Byers	(Measurement discontinued, well dry)			k43.50	43	58.90	57	35	58
5.Lot 2 *	Miss Ethel Yadon	55.00	15	-1.04	53.96	57	55.00	58	57	
5.Lot 10	Mrs. Mary Coxey	58.98	15	-1.02	44.53	42	58.98	58	40	48

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1958 - Continued

Location number	Name	Water levels: Jan. 1958 Level	Jan. 1958 Day	Change 1957-58	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Record: Years missing
17.38.34.113 *	W. E. Busby	31.13	9	-0.83	24.78	44	31.13	58	44	
36.212	R. M. King	71.58	13	-3.13	59.60	50	72.19	54	50	
17.39.32.111	do.	78.87	13	- .78	72.92	50	78.88	54	50	
18.35.17.144 *	International Minerals Chemical Corp.	69.74	14	- .24	69.49	56	69.74	58	54	
20.144	do.	75.85	14	- .08	75.73	56	75.85	58	54	
20.214	do.	72.27	14	- .03	72.18	56	72.27	58	54	
18.36.27.111 *	State of New Mexico	41.56	13	- .93	38.13	43	41.66	41	39	
18.38.3.313	H. E. Teague	35.32	9	- .91	29.68	52	35.32	58	52	
14.113	Ben Gamblin	(Measurement discontinued)			31.42	56	33.76	57	54	58
15.241 *	Glenn Staley	37.12	13	-1.07	26.77	43	38.63	54	40	
19.413	Carl Dennison	29.96	9	- .13	24.37	49	30.55	54	49	50,52
22.411	S. C. Albertson	(Measurement discontinued)			34.43	43	47.56	57	40	58
22.433	Glenn Staley	53.35	13	-1.49	41.23	49	53.35	58	49	
27.113 *	City of Hobbs	47.81	9	+ .59	44.00	55	48.40	57	55	
30.223 *	Mrs. Sadie Davis	28.29	9	- .86	23.19	48	28.29	58	31	
19.35.13.412	B. E. Hughes	18.10	14	+ .72	18.08	50	18.89	54	50	
24.222	F. K. Turner	19.69	14	-	17.78	47	20.38	41	39	57
19.36.19.113	L. S. Evans Estate	16.60	14	+ .70	15.06	47	17.93	41	39	
19.411	F. K. Turner	16.27	14	+ .19	16.27	58	16.59	49	42	
32.111	do.	17.09	14	+ .27	15.15	42	18.60	40	39	
19.37.1.231	Hobbs Country Club	27.33	13	+2.58	24.75	47	29.91	57	45	53,56
32.241 *	Mrs. E. A. Anderson	12.13	13	+ .09	11.50	33	12.34	49	30	
32.241a	do.	12.15	13	-	12.15	58	a12.82	54	48	57
19.38.2.122	Perry Lamar	64.55	13	+ .31	43.59	42	64.86	57	40	

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1958 - Continued

Location number		Name	Water levels: Jan. 1958 Level	Day	Change 1957-58	Highest Level	Year	Lowest Level	Year	Record: Began	Years missing
19.38.2.242		Bert Dodson	45.93	13	+2.74	44.38	42	52.04	53	41	
2.424		A. C. Cheser	35.56	13	+2.48	35.56	58	46.54	41	41	42,48
34.222		Collins Walker	48.52	13	+2.89	42.27	49	50.41	57	49	
20.35.1.221	*	J. L. Wood	25 96	14	- .28	19.70	44	25.96	58	30	
20.37.9.110	*	W. H. Laughlin	32.59	13	+ .76	27.18	43	42.40	38	30	36.37
20.38.12.244		(Measurement discontinued)				43.12	55	c44.81	56	54	57,58
20.39.7.133		(Measurement discontinued)				43.03	55	c45.25	56	54	57,58
18.344			45.13	13	+ .33	45.13	58	46.08	54	54	

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
g. Measured by E. G. Minton
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder chart.
w. Also 1958

Well Descriptions and Seasonal Water-Level Measurements, 1957

11.33.25.442. R. W. and N. S. Epperson. Drilled water-table well in Ogallala formation, diameter 8 inches, depth 69 feet. Highest water level 33.55 below lsd, May 8, 1956; lowest 33.97 below lsd, July 14, 1954. Records available: 1953-57. Jan. 9, 33.56; Mar. 5, 33.59; June 4, 33.64; Sept. 10, 33.73.

12.31.23.333. F. E. Dickson. Drilled unused water-table well in Ogallala formation, diameter 3 inches, depth 148 feet. Highest water level 129.51 below lsd, Sept. 10, 1957; lowest 130.37 below lsd, May 12, 1954, Jan. 13 and Mar. 18, 1955. Records available: 1953-57. Jan. 7, 129.90; Mar. 5, 129.93; June 4, 129.89; Sept. 10, 129.51.

12.34.11.413. A. D. Jones Estate. Drilled unused water-table well in Ogallala formation, diameter 15 inches, depth 87 feet. Highest water level 29.57 below lsd, May 24, 1949; lowest 32.13 below lsd, Sept. 27, 1955. Records available: 1949-57. Jan. 9, 31.75; Mar. 5, 31.84; June 4, 31.95; Sept. 10, 32.00.

12.36.24.434a. J. C. Clay. Drilled domestic water-table well in Ogallala formation, diameter 6 inches. Highest water level 22.55 below lsd, Jan. 6, 1956; lowest 25.08 below lsd, Sept. 16, 1954. Records available: 1947-57. Jan. 9, 24.27; Mar. 8, 24.20; June 7, 24.29; Sept. 12, 24.54.

12.36.29.241. E. D. Holt. Drilled unused domestic water-table well in Ogallala formation, diameter 6 inches, depth 50 feet. Highest water level 27.35 below lsd, Mar. 13, 1956; lowest 28.93 below lsd, Sept. 26, 1955. Records available: 1954-57. Jan. 9, 27.81; Mar. 5, 27.85; June 7, 28.07; Sept. 10, 28.37.

13.35.2.111a. Drilled unused water-table well in Ogallala formation, depth 44.5 feet. Highest water level 26.43 below lsd, Nov. 30, 1955; lowest 28.69 below lsd, May 31, 1955. Records available: 1953-57. Jan. 11, 27.61; Mar. 8, 27.67; June 7, 27.90; Sept. 10, 28.14.

13.37.7.234. W. D. Patton. Drilled unused water-table well in Ogallala formation, diameter 6 inches. Highest water level 29.56 below lsd, Mar. 27 and Nov. 15, 1947; lowest 33.66 below lsd, Sept. 12, 1957. Records available: 1945-57. Jan. 9, 33.29; Mar. 8, 33.31; June 7, 33.37; Sept. 12, 33.66.

13.37.13.132. Taylor. Drilled unused water-table well in Ogallala formation, diameter 8 inches, depth 42 feet. Highest water level 25.46 below lsd, Aug. 12, 1941; lowest 33.16 below lsd, Sept. 12, 1957. Records available: 1930-57. Mar. 8, 32.53; June 7, 32.83; Sept. 12, 33.16.

14.35.33.433. W. A. Anderson. Drilled unused water-table well in Ogallala formation, diameter 6 inches, depth 62 feet. Land-surface datum is 4,013.59 feet above msl. Highest water level 39.65 below lsd, May 21 and July 25, 1951, Jan. 9 and May 24, 1952; lowest 44.42 below lsd, Nov. 27, 1956. Records available: 1929-57. Jan. 11, 44.41; Mar. 7, 44.20; June 7, 43.86; Sept. 13, 44.26.

14.36.4.111. Lewis Beaman. Drilled domestic water-table well in Ogallala formation, diameter 6 inches. Highest water level 42.73 below lsd, Mar. 23, 1949; lowest 68.01 below lsd, Sept. 10, 1957. Records available: 1949-57. Jan. 11, 60.58; Mar. 8, 59.85; June 7, 62.44; Sept. 10, 68.01.

14.36.13.211. Mrs. Mattie Field. Drilled unused water-table well in Ogallala formation, diameter 12 inches, depth 87 feet. Land-surface datum is 3,904.59 feet above msl. Highest water level 35.74 below lsd, Jan. 30 and May 24, 1946; lowest 47.50 below lsd, Sept. 10, 1957. Records available: 1929-57. Jan. 8, 46.90; Mar. 8, 46.98; June 7, 47.20; Sept. 10, 47.50.

14.37.15.222. O. A. Pope. Drilled unused irrigation water-table well in Ogallala formation, diameter 16 inches, depth 140 feet. Highest water level 53.89 below lsd, Mar. 23, 1953; lowest 81.69 below lsd, July 18, 1955. Records available: 1953-57. Jan. 8, 66.58; Mar. 8, 65.04; June 7, 78.38, nearby well being pumped; Sept. 12, well filled. Measurements discontinued.

14.37.31.333. T. N. and E. N. Miller. Drilled irrigation water-table well in Ogallala formation, diameter 16 inches, reported depth 130 feet. Highest water level 43.59 below lsd, Mar. 21, 1949; lowest 71.96 below lsd, Sept. 10, 1953. Records available: 1949-57. Jan. 7, 58.04; Mar. 8, 57.19; June 7, 56.68; Sept. 10, 63.72.

14.38.21.311. Claude Cox. Drilled irrigation water-table well in Ogallala formation, diameter 14 inches, depth 105 feet. Highest water level 32.48 below lsd, Jan. 21, 1949; lowest 53.21 below lsd, Sept. 10, 1956. Records available: 1949-57. Jan. 8, 46.43; Mar. 8, 46.01; June 7, 46.36; Sept. 12, 48.20.

15.36.8.111a. L. A. Beatty. Drilled domestic water-table well in Ogallala formation, diameter 6 inches, depth 105 feet. Highest water level 41.33 below lsd, Mar. 23, 1949; lowest 62.05 below lsd, Sept. 23, 1955. Records available: 1949-57. Jan. 21, 56.74; Mar. 7, 56.28; June 7, 64.09, nearby well being pumped; Sept. 13, 69.74, nearby well being pumped.

15.37.21.334. R. W. Dean. Drilled stock water-table well in Ogallala formation, diameter 8 inches, reported depth 80 feet. Highest water level 29.10 below lsd, July 27, 1943; lowest 57.50 below lsd, Sept. 12, 1957. Records available: 1930-57. Jan. 21, 58.15, pumping; Mar. 7, 51.14, pumping, measurement uncertain; Sept. 12, 57.50.

16.35.13.112. W. T. Zuber. Drilled irrigation water-table well in Ogallala formation, diameter 12 inches, reported depth 100 feet. Highest water level 42.36 below lsd, nearby well being pumped, Mar. 26, 1948; lowest 56.16 below lsd, Sept. 13, 1957. Records available: 1948-57. Jan. 23, 51.03; Mar. 6, 50.78; June 5, 53.02; Sept. 13, 56.16.

16.36.5.Lot 2. Miss Ethel Yaden. (See table 11, page 68.)

16.37.11.111. A. J. Birkshire. Drilled irrigation water-table well in Ogallala formation, diameter 16 inches, reported depth 118 feet. Highest water level 31.93 below lsd, Jan. 23, 1949; lowest 66.03 below lsd, Sept. 8, 1956. Records available: 1949-57. Jan. 21, 56.24; Mar. 7, 55.28; June 7, 61.33; Sept. 12, 63.12.

16.38.3.333. State of New Mexico. (See table 12, page 69.)

16.38.34.131. Dick Seaborn. Drilled irrigation water-table well in Ogallala formation, diameter 16 inches, reported depth 140 feet. Highest water level 35.06 below lsd, May 22, 1947; lowest 68.31 below lsd, Sept. 26, 1955. Records available: 1947-57. Jan. 21, 59.51; Mar. 7, 59.46; June 5, 64.95; Sept. 12, 72.00, nearby well being pumped, dry.

17.33.13.341. Potash Co. of America. (see table 13, page 70.)

17.34. 21.143. Duval Sulphur Potash Co. Drilled industrial water-table well in Ogallala formation, diameter 12 inches, depth 246 feet. Highest water level 112.71 below lsd, Jan. 21, 1951; lowest 125.05 below lsd, July 26, 1956. Records available: 1951-57. Jan. 23, 152.85, pumping; June 6, 143.12, pumping; Sept. 11, 122.96.

17.34.35.130. Phillips Petroleum Co. Drilled unused water-table well in Ogallala formation, diameter 8 inches, depth 132 feet. Highest water level 89.81 below lsd, July 21, 1953; lowest 91.98 below lsd, Jan. 26, 1941. Records available: 1940-57. Jan. 12, 90.29; Mar. 6, 90.36; June 6, 90.31; Sept. 11, 90.34.

17.35.35.213. Phillips Petroleum Co. Drilled unused water-table well in Ogallala formation, diameter 9 inches, depth 129 feet. Highest water level 38.60 below lsd, Jan. 16, 1948; lowest 41.45 below lsd, Jan. 26, 1941. Records available: 1940-57. Jan. 23, 39.90; Mar. 6, 39.92; June 6, 39.96; Sept. 11, 39.87.

17.36.3.333. State of New Mexico. Drilled unused water-table well in Ogallala formation, diameter 2 inches, depth 85 feet. Highest water level 42.00 below lsd, Mar. 24 and May 15, 1944; lowest 45.01 below lsd, June 18, 1939. Records available: 1939-57. Jan. 23, 43.05; Mar. 6, 42.79; June 6, 42.85; Sept. 11, 43.00.

17.36.27.131. Fred Turner. Drilled irrigation water-table well in Ogallala formation, diameter 12 inches, depth 100 feet. Highest water level 33.00 below lsd, Sept. 23, 1949; lowest 36.52 below lsd, May 17, 1950. Records available: 1947-57. Mar. 6, 35.19; June 6, 35.20; Sept. 11, 35.35.

17.38.7.111a. L. R. Sebings. Drilled irrigation water-table well in Ogallala formation, diameter 16 inches, reported depth 135 feet. Highest water level 35.59 below lsd, Mar. 21, 1952; lowest 53.33 below lsd, Sept. 12, 1957. Records available: 1951-57. Jan. 11, 46.99; Mar. 7, 46.17; June 5, 48.96; Sept. 12, 53.33.

17.38.34.113. W. E. Busby. Drilled irrigation water-table well in Ogallala formation, diameter 12 inches, depth 120 feet. Highest water level 24.78 below lsd, Jan. 15, 1944; lowest 31.66 below lsd, Sept. 3, 1953. Records available: 1943-57. Jan. 11, 30.30; Mar. 7, 30.42; June 5, 30.61; Sept. 12, 30.86.

18.35.17.144. International Mineral and Chemical Corp. Drilled industrial water-table well in Ogallala formation, diameter 12 3/4 inches, depth 190 feet. Highest water level 69.41 below lsd, Sept. 14, 1954; lowest 69.62 below lsd, Mar. 6, 1957. Records available: 1953-57. Jan. 12, 69.50; Mar. 6, 69.62; June 6, 69.54; Sept. 11, 69.53.

18.36.27.111. State of New Mexico. Drilled unused water-table well in Ogallala formation, diameter 6 inches, depth 54 feet. Highest water level 38.09 below lsd, Oct. 23, 1942; lowest 41.75 below lsd, Mar. 15, 1941. Records available: 1939-57. Jan. 12, 40.63; Mar. 6, 40.73; June 6, 40.85; Sept. 11, 41.27.

18.38.15.241. Glenn Staley. Drilled unused water-table well in Ogallala formation, diameter 6 inches, depth 107 feet. Highest water level 26.65 below lsd, Nov. 4-7, 1942; lowest 42.90 below lsd, July 13, 1954. Records available: 1940-57. Jan. 8, 36.05; Mar. 7, 36.49; June 5, 36.94; Sept. 12, 40.15.

18.38.27.113. City of Hobbs. Drilled well equipped with turbine pump, electric motor, located one block east of State Highway 18, depth 212 feet. Highest water level 42.94 below lsd, Mar. 1, 1954; lowest 60.83 below lsd, July 15, 1954. Records available: 1954-57. Jan. 8, 48.40; Mar. 6, 47.79; June 5, 52.66; Sept. 11, 49.04.

18.38.30.223. Mrs. Sadie Davis. Drilled unused water-table well in Ogallala formation, diameter 6 inches, depth 50 feet. Highest water level 23.01 below lsd, Nov. 17, 1947; lowest 29.82 below lsd, Nov. 1932. Records available: 1931-57. Jan. 8, 27.43; Mar. 6, 27.58; June 5, 27.94; Sept. 11, 28.45.

19.37.32.241. Mrs. E. A. Anderson. Dug unused water-table well in Ogallala formation, diameter 8 feet, depth 28 feet. Highest water level 10.12 below lsd, Nov. 28, 1941; lowest 13.89 below lsd, June 17, 1934. Records available: 1929-57. Jan. 12, 12.22; Mar. 6, 12.25; June 6, 11.79; Sept. 11, 12.14.

20.35.1.221. J. L. Wood. Dug unused water-table well in Ogallala formation, size 4 by 4 feet, depth 28 feet. Highest water level 19.38 below lsd, July 28, 1943; lowest 25.69 below lsd, Mar. 6, 1957. Records available: 1929-57. Jan. 12, 25.68; Mar. 6, 25.69; June 6, 25.52; Sept. 11, 25.66.

20.37.9.110. W. H. Laughlin. Dug and drilled water-table well in Ogallala formation, size 4 by 6 feet, depth 53 feet. Highest water level 26.89 below lsd, Mar. 30, 1943; lowest 47.54 below lsd, Aug. 12, 1935. Records available: 1929-57. Jan. 12, 33.35; Mar. 6, 33.01; June 6, 33.05; Sept. 11, 33.66.

Table 11.--Well 16.36.5. Lot 2 Miss Ethel Yadon. Drilled unused water table well in Ogallala formation, diameter 16 inches, depth 97 feet. Equipped with automatic water stage recorder, November 29, 1956. Highest water level 53.83 below lsd, Mar. 14, 1957; lowest 54.95 below lsd, Dec. 31, 1957. Records available 1956-57.

Daily highest water level from recorder graph, 1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	53.94	-	53.91	53.84	53.98	54.11	54.20	54.36	54.48	-	54.69	54.84
2	53.97	-	53.91	53.86	53.92	54.10	54.23	54.37	54.48	-	54.71	54.83
3	53.93	-	53.88	53.85	53.90	54.11	54.22	54.37	54.48	-	54.72	54.83
4	53.93	-	53.90	53.87	53.94	54.11	54.23	54.37	54.49	-	54.72	54.84
5	53.95	-	53.93	53.87	53.95	54.11	54.23	54.38	54.50	-	54.74	54.84
6	53.96	-	53.92	53.87	53.97	54.10	54.23	54.38	54.50	-	54.72	54.84
7	53.98	-	53.87	53.89	53.97	54.10	54.24	54.39	54.51	-	54.73	54.86
8	53.94	-	53.88	54.02	53.99	54.11	54.25	54.39	54.50	-	54.75	54.86
9	53.95	-	53.89	54.01	53.98	54.12	54.25	54.40	54.51	-	54.75	54.87
10	53.92	-	53.89	54.01	54.00	54.12	54.25	54.40	54.52	-	54.76	54.87
11	53.93	-	53.90	53.99	54.01	54.13	-	54.41	54.51	-	54.75	54.87
12	53.93	-	53.88	53.99	54.03	54.10	-	54.42	54.53	-	54.74	54.85
13	53.91	53.94	53.85	53.96	54.03	54.12	-	54.41	54.51	-	54.75	54.85
14	53.90	53.93	53.83	53.99	54.03	54.13	-	54.42	54.52	-	54.76	54.88
15	53.92	53.93	53.87	53.99	54.02	54.13	54.29	54.42	54.53	-	54.77	54.88
16	53.96	53.95	53.88	53.94	54.05	54.15	54.28	54.43	54.53	-	54.77	54.88
17	53.97	53.93	53.86	53.92	54.02	54.17	54.28	54.43	54.53	-	54.78	54.88
18	53.93	53.94	53.85	53.90	54.04	54.17	53.29	54.43	54.52	-	54.79	54.87
19	53.91	53.95	53.89	53.91	54.03	54.15	54.29	54.43	54.54	-	54.78	54.89
20	53.92	53.97	53.88	53.95	54.04	54.14	54.29	54.44	54.54	-	54.79	54.90
21	53.95	53.97	53.86	53.93	54.05	54.15	54.30	54.45	54.54	-	54.81	54.89
22	53.93	53.96	53.91	54.00	54.07	54.17	54.31	54.45	54.56	-	54.80	54.90
23	53.91	53.93	53.90	53.96	54.07	54.19	54.31	54.46	54.56	-	54.80	54.93
24	53.91	53.93	53.88	53.96	54.06	54.17	54.33	54.44	-	54.63	54.82	54.90
25	51.94	53.92	53.87	53.97	54.08	54.17	54.32	54.46	-	54.66	54.82	54.91
26	53.91	53.92	53.87	-	54.07	54.17	54.33	54.47	-	54.67	54.80	54.88
27	53.91	53.90	53.89	53.93	54.06	54.18	54.34	54.24	-	54.67	54.82	54.89
28	53.91	53.91	53.89	53.97	54.07	54.20	54.35	54.46	-	54.67	54.81	54.91
29	53.90		53.85	54.00	54.06	54.20	54.34	54.47	-	54.68	54.82	54.91
30	53.95		53.85	54.00	54.05	54.21	54.35	54.47	-	54.69	-	54.94
31	-		53.88		54.08		54.35	54.47		54.68		5 .95

Table 12.--Well 16.38.3.333. State of New Mexico. Test Hole No. 9. Drilled test hole water-table well in Ogallala formation, diameter 8 inches, depth 107 feet. Well cased to 100 feet. Highest water level 24.44 below lsd, May 29 to June 25, 1955; lowest 40.87 below lsd, May 30, 1957. Records available 1953-57.

Daily highest water level from recorder graph, 1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	25.63	25.66	-	-	-	38.38	-	35.03	35.40	36.42	-	-
2	25.63	25.66	-	-	-	37.40	-	34.60	35.28	36.12	-	-
3	25.63	25.66	-	-	-	36.63	-	34.29	35.30	39.02	-	-
4	25.63	25.66	-	-	-	35.93	-	34.06	35.20	40.22	-	-
5	25.63	25.66	-	-	-	35.42	-	33.86	35.64	39.67	-	-
6	25.63	25.66	-	-	-	34.88	-	33.68	35.14	39.53	-	-
7	25.63	25.66	26.97	-	-	34.78	-	33.62	34.79	38.57	-	-
8	25.63	25.66	27.09	-	-	35.62	-	36.49	34.70	37.66	-	-
9	25.64	25.66	27.03	-	-	37.56	-	36.68	37.94	37.00	-	-
10	25.64	25.66	27.17	-	-	38.32	-	38.36	39.10	36.40	-	-
11	25.64	25.66	27.08	-	-	38.00	-	38.34	38.90	35.87	-	-
12	25.64	25.66	27.04	-	-	37.71	-	37.98	37.63	35.45	-	-
13	25.64	25.66	-	-	h36.89	38.88	-	39.06	37.28	35.10	-	-
14	25.64	25.66	-	-	36.35	38.49	-	38.56	36.93	34.79	-	-
15	25.64	25.66	-	-	37.31	39.96	-	38.02	36.25	34.60	-	-
16	25.64	25.66	-	-	37.88	39.15	-	37.63	36.10	35.80	-	-
17	25.64	25.66	-	-	38.37	38.92	-	37.36	36.23	38.18	-	-
18	25.64	25.66	-	-	38.77	-	-	37.03	35.77	36.68	-	-
19	25.64	25.66	-	-	39.36	-	-	39.12	35.32	35.92	-	-
20	25.64	25.66	-	-	39.88	-	-	38.60	34.92	35.37	-	-
21	25.64	25.66	-	-	39.73	-	-	37.75	34.68	34.89	-	-
22	25.64	25.66	-	-	40.21	-	-	37.09	34.45	34.63	-	-
23	25.64	25.66	-	-	39.94	-	-	36.50	34.25	34.38	-	-
24	25.64	25.66	-	-	39.23	-	h34.32	36.17	34.23	34.22	-	-
25	25.65	25.66	-	-	-	-	34.25	37.32	37.80	34.05	-	-
26	25.65	25.66	-	-	-	-	34.17	39.49	37.81	33.90	-	-
27	25.66	25.66	-	-	-	-	37.06	38.95	39.03	e33.75	-	-
28	25.66	-	-	-	-	-	35.52	37.75	38.58	-	-	-
29	25.66		-	-	-	-	34.95	36.95	38.08	-	-	-
30	25.66		-	-	40.87	-	34.78	36.35	37.13	-	-	-
31	25.66		-		39.43		35.22	35.84		-		-

e. Estimated
h. Tape measurement

[illegible] of America. Drilled water-table well in Ogallala formation,

31 | 25.66

e. Estimated
h. Tape measurement

Table 13.--Well 17.33.13.341. Potash Co. of America. Drilled water-table well in Ogallala formation, diameter 6 inches, depth 252 feet. Cased to 252. Highest water level 146.00 below lsd, Jan. 21, 1953; lowest 154.04 below lsd, Dec. 31, 1957. Records available 1952-57.

Daily highest water level from recorder graph, 1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	152.83	152.74	152.76	152.79	153.06	153.30	153.35	153.51	153.65	153.68	153.66	153.86
2	152.66	152.59	152.79	152.92	153.09	153.26	153.37	153.49	153.66	-	153.77	153.88
3	152.67	152.65	152.67	152.87	153.14	153.27	153.33	153.48	153.66	153.76	153.79	153.94
4	152.70	152.68	152.77	152.92	153.23	153.23	153.36	153.48	153.70	153.76	153.77	153.87
5	152.66	152.67	152.76	-	153.16	153.22	153.33	153.47	153.71	153.75	153.81	153.82
6	152.64	152.65	152.79	-	153.14	153.17	153.32	153.48	153.70	153.78	153.73	153.88
7	152.55	152.70	152.80	153.02	153.09	153.18	153.32	153.51	153.73	153.80	153.77	153.86
8	152.56	152.70	152.85	153.04	153.12	153.21	153.37	153.52	-	153.82	153.80	153.85
9	152.61	152.73	152.80	152.94	153.15	153.16	153.37	153.54	153.77	153.77	153.74	153.79
10	152.62	152.83	152.85	152.99	153.12	153.11	153.37	153.55	153.77	153.71	153.74	153.80
11	152.65	152.74	152.97	153.02	153.15	153.12	153.37	153.60	153.76	153.64	153.67	153.73
12	152.68	152.82	152.84	153.04	153.08	153.06	153.36	153.61	153.76	153.58	153.65	153.75
13	152.69	152.80	152.84	152.98	153.11	152.99	153.43	153.55	153.74	153.63	153.70	153.91
14	152.68	152.70	152.98	152.90	153.09	153.01	153.44	153.58	153.74	153.61	153.69	153.95
15	152.77	152.79	152.85	152.91	153.06	152.96	153.43	153.60	153.75	153.65	153.75	153.99
16	152.79	152.77	152.79	152.99	153.19	152.98	153.43	153.59	153.73	153.70	153.84	153.93
17	152.74	152.66	152.81	153.04	153.11	153.00	153.42	153.59	153.73	153.68	153.87	153.89
18	152.63	152.69	152.86	152.98	153.21	152.99	153.45	153.57	153.70	153.64	e153.86	153.90
19	152.62	152.78	152.86	153.10	153.14	152.90	153.44	153.54	153.81	153.65	153.82	153.90
20	152.59	152.76	152.83	153.08	153.16	152.92	153.45	153.56	153.80	153.67	153.89	153.93
21	152.59	152.75	152.92	153.03	153.19	152.98	153.43	153.61	153.84	153.70	153.87	153.93
22	152.73	152.85	152.89	153.12	153.24	153.11	153.43	153.62	153.88	153.73	153.80	153.87
23	152.57	152.79	153.04	153.11	153.20	153.19	153.45	153.62	-	153.81	153.77	153.97
24	152.59	152.82	152.98	153.09	153.15	153.08	153.48	153.62	-	153.65	153.81	153.84
25	152.67	152.84	152.98	153.07	153.18	153.14	153.46	153.67	153.79	153.66	153.78	153.89
26	152.67	152.85	152.92	153.08	153.13	153.22	153.50	153.67	153.85	153.71	153.71	153.80
27	-	152.75	153.00	153.01	153.10	153.27	153.52	153.66	153.83	153.64	153.78	153.85
28	152.71	152.85	152.89	153.11	153.12	153.34	153.54	153.66	153.79	153.55	153.74	153.94
29	152.79		152.86	153.09	153.08	153.33	153.49	153.68	153.76	153.60	153.81	154.00
30	152.72		152.88	153.05	153.10	153.33	153.52	153.67	153.70	153.62	153.87	154.01
31	152.68		152.91		153.16		153.52	153.68		153.59		154.04

e. Estimated

TECHNICAL REPORT 23

New Mexico State Engineer
Santa Fe, N. Mex.

GROUND-WATER LEVELS IN NEW MEXICO, 1958

By

H. O. Reeder and Others
U. S. Geological Survey

1962

TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY

W. C. Ballance

The Tatum-Lovington-Hobbs area is in Lea County on the High Plains of southeastern New Mexico. The Ogallala formation is the principal aquifer from which ground water is obtained. The Lea County Underground Water Basin was extended on October 1, 1952, by order of the State Engineer and now includes 2,180 square miles.

Water-level measurements were begun in this area in 1929 to determine the effects of pumping and precipitation on ground-water storage. Water levels were measured in 190 wells in January 1958 and in about 39 of these wells in March, June, and September, for a total of about 300 measurements during the year. The seasonal measurements are given following table 10. Recording gages were maintained on well 16.36.5.Lot 2 about 1 mile northwest of Lovington, well 16.38.3.333 about 12 miles east of Lovington, and well 17.33.13.341 about 17 miles southwest of Lovington. Daily water levels in these wells are given in tables 11, 12, and 13.

Water levels measured in January 1959 (table 10) and January 1958 were used in preparing the map (fig. 6) showing net changes in water levels. The area of water-level decline decreased and the net declines were smaller in 1958 than in 1957. The ground-water level during 1958 declined more than 1 foot in an area of 61 square miles. In 1957 the decline was more than 1 foot in an area of 230 square miles. A decline of more than 2 feet was noted in an area of 4 square miles in 1958, as compared with 40 square miles in 1957. The greatest net decline noted in 1958 was in a well about 6 miles east of Lovington; however, declines of 3 and 4 feet were noted in areas of 5 and 1 square miles, respectively, in 1957. Water-level rises in the vicinity of Lovington and eastward to the Texas line were noted in 1958.

It is estimated that about 80,000 acres of land was irrigated in 1958. Electric-power records of 197 irrigation pumps for 1958 were compared with electric-power records for 1957. This comparison and a number of pump ratings indicate that about 107,000 acre-feet of water was pumped during 1958. About 140,000 acre-feet of water was pumped in 1957 on about the same acreage.

There was an increase in precipitation in 1958 over that for 1957. According to U. S. Weather Bureau records, Tatum received 23.94 inches of precipitation in 1958, more than in any year since 1941 and 5.90 inches more than during the previous year; 71 percent occurred during the growing season. Lovington received 22.58 inches, more than in any year since 1949 and 9.79 inches more than the previous year; 66 percent occurred during the growing season. Hobbs had 18.98 inches in 1958, 0.22 inch less than the previous year; 56 percent occurred during the growing season.

The above-normal precipitation for 1958 resulted in reduced pumping for irrigation and increased recharge to the ground-water body. This reduced the rate of the general lowering of the water table in 1958 in comparison with previous years. Even with this better than normal moisture condition, however, water levels continued to decline.

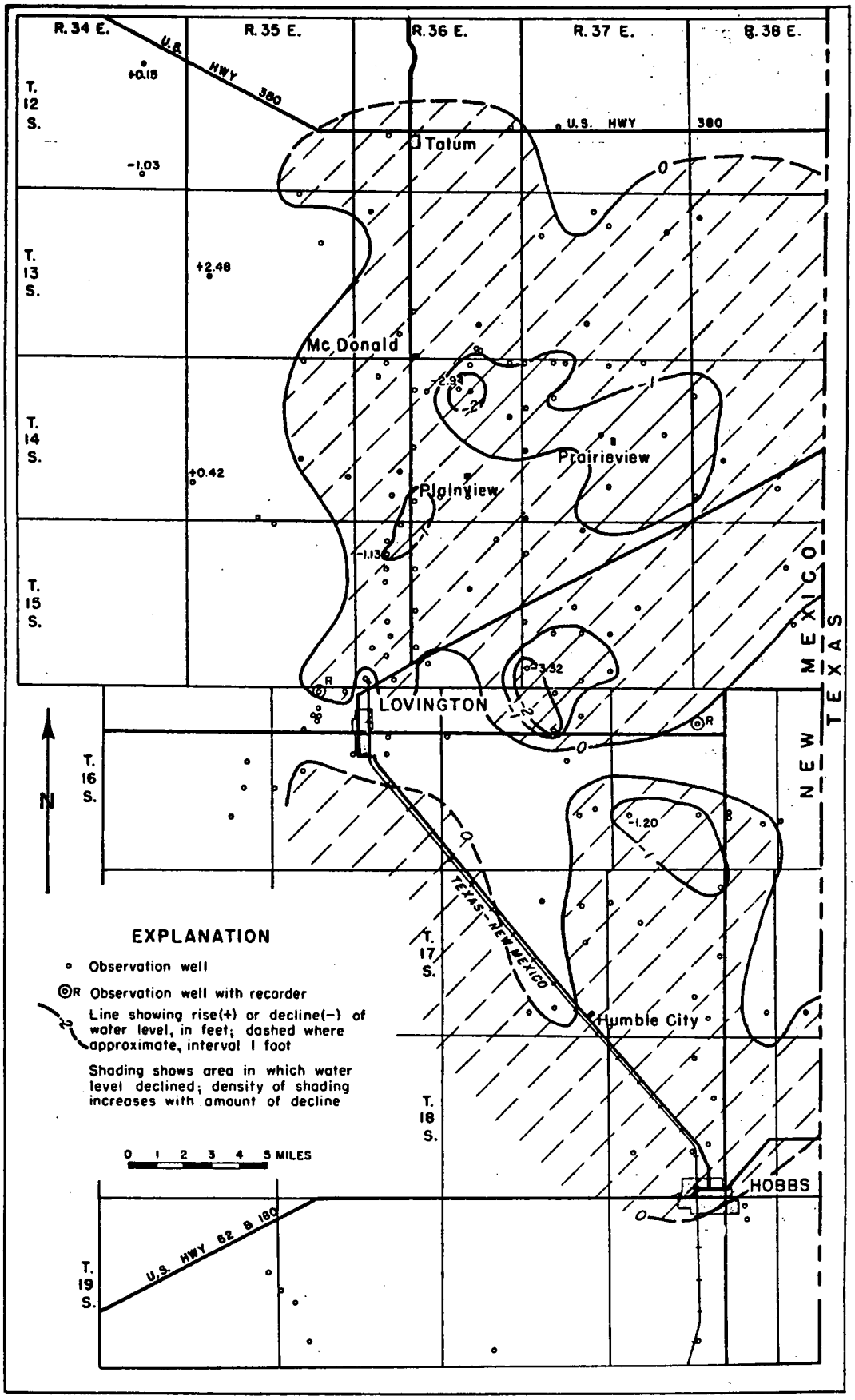


FIGURE 6. Change of ground-water level from January 1958 to January 1959 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1959, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1958 TO JANUARY 1959, IN FEET

(* Additional measurements and other data for this well are listed in following tabulation of seasonal measurements or daily records of water level)

Location number		Name	Water levels							Record	
			Jan. 1959		Change	Highest		Lowest		Began	Years missing
			Level	Day	1958-59	Level	Year	Level	Year		
11.33.25.442	*	R. W. and Nancy S. Epperson	33.84	13	-0.07	33.56	57	33.88	54	54	
12.31.23.333	*	F. E. Dickson	129.65	13	+ .13	129.65	59	130.37	55	54	
26.333		do.	131.86	13	+ .19	131.86	59	132.29	56	54	
26.333a		do.	130.50	13	+ .04	130.40	54	130.69	56	54	
12.34.11.413	*	A. D. Jones Estate	31.83	13	+ .15	29.78	50	31.98	58	50	
13.112		do.	(a)	13	-	29.68	48	41.81	55	48	54,56,59
35.411		do.	39.88	13	-1.03	35.62	49	48.77	55	48	
12.36.19.223		O. V. Fisher	-	-	-	22.13	43	a32.05	41	39	59
24.434		J. C. Clay	-	-	-	+1.32	42	25.27	58	41	49,52,54,59
24.434a	*	do.	24.53	14	- .17	22.55	56	24.85	55	48	
29.112	*	E. D. Holt	33.97	14	- .12	k27.69	44	k34.24	41	30	55
29.241	*	do.	(Measurement discontinued)			27.55	56	28.30	55	55	59
12.37.20.343		Alvin Breckon	23.86	14	+ .42	23.86	59	26.63	55	54	
12.38.4.312		G. C. Copeland	41.11	14	+ .73	39.15	43	43.35	41	41	
13.32.25.214		State of New Mexico	142.94	20	+ .10	142.94	59	143.34	55	54	
25.214a		do.	142.98	20	+ .08	142.98	59	143.33	55	54	
13.35.2.111a	*	do.	28.90	14	- .52	26.53	56	28.90	59	54	
11.222		Abilene Christian College	45.94	14	+1.05	29.14	43	47.29	55	30	32-38
19.211		Clara Elkan	47.42	14	+2.48	44.75	46	49.90	58	41	51,54
13.36.6.413		R. W. Duncan	c74.55	14	-20.22	44.94	48	57.25	54	48	
6.413a		do.	(a)	14	-	51.88	53	57.49	54	53	59
26.324		Mrs. Iona McClish	58.81	14	- .71	42.24	49	58.81	59	49	
28.113		M. R. Anderson	56.60	14	- .10	44.77	49	56.60	59	49	
32.211		R. E. Hilburn	58.96	14	- .65	42.76	50	58.96	59	49	56
33.321		L. V. Beaman	60.88	14	-	40.16	47	61.85	56	39	58

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1959 - Continued

Location number		Name	Water levels							Record	
			Jan. 1959		Change	Highest		Lowest		Began	Years
			Level	Day	1958-59	Level	Year	Level	Year		missing
13.36.35.324		M. J. McClish	b69.98	14	-1.11	53.74	52	69.12	57	52	
35.413		do.	62.58	14	+ .44	36.07	45	63.02	58	39	52
13.37.4.242		Brady Lowe	-	-	-	37.74	47	43.85	56	39	59
4.422		do.	36.99	14	+ .62	33.83	43	39.53	55	40	42,48
7.234	*	W. D. Patton	34.28	14	- .44	29.57	48	34.28	59	47	
9.111		B. N. Davenport	39.40	14	- .17	36.33	48	39.40	59	48	
13.132	*	Bailey Brownfield	34.27	14	- .75	26.46	42	34.27	59	30	50,53
28.413		J. B. and J. D. Doran	49.44	15	- .43	31.70	45	49.46	57	45	
13.38.6.341		J. W. Anderson	60.73	14	- .45	43.02	45	61.89	57	40	
14.35.2.112		Clara Elkan	39.88	14	- .09	37.06	56	39.88	59	54	55
23.313		Propst and Anderson	37.92	15	- .12	37.80	58	40.61	55	54	
25.241		M. J. Wiggins	50.14	15	- .32	43.30	50	51.48	56	49	
30.134		State of New Mexico	46.70	15	+ .42	44.97	51	48.93	41	39	
33.433	*	W. A. Anderson	43.74	r3	+ .40	39.65	52	44.41	57	30	
14.36.1.211		G. T. Hanners	62.97	15	- .96	33.80	48	62.97	59	48	53
2.113		Leslie Estep	72.74	14	-1.73	48.44	50	72.74	59	49	
4.111	*	Lewis Beaman	61.68	14	+ .24	43.14	50	61.92	58	50	
6.421		S. A. and W. B. Richardson	50.90	14	- .42	39.03	44	50.90	59	40	45,54,56
9.111		Karl Clayton	58.80	15	- .44	38.36	44	58.80	59	39	
9.211		O. M. Woodward	65.06	15	- .44	40.46	43	65.06	59	39	53
10.212		Karl Clayton	71.65	15	-2.94	47.98	49	71.65	59	49	
13.211	*	Mrs. Mattie Field	49.50	15	-1.43	35.74	46	49.50	59	30	
14.112		do.	53.01	15	-2.23	40.75	46	53.01	59	39	53
21.111		J. W. Mayo	52.65	15	- .17	42.69	49	52.65	59	49	
29.211		G. T. Hanners	50.59	15	- .70	44.64	51	51.57	56	50	
32.121		E. T. Howell	60.94	15	- .69	53.58	49	62.10	52	49	
33.131		Zula Bell	68.37	15	-1.26	56.92	50	68.68	57	49	

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1959 - Continued

Location number		Name	Water levels							Record	
			Jan. 1959		Change	Highest		Lowest		Began	Years missing
			Level	Day	1958-59	Level	Year	Level	Year		
14.36.34.111		R. W. Boyd and Sons	66.99	15	-0.78	51.80	50	66.99	59	50	
35.111		Fredia Wright	62.97	15	+1.55	48.36	49	64.68	55	49	51,52,56
14.37.2.121		Lois C. Hobbs, Hulda Heidel	54.82	15	- .41	34.47	51	54.82	59	51	
3.113a		do.	56.59	15	- .00	44.81	52	56.59	w59	52	
5.111		S. G. Knoll	61.12	15	+ .62	33.34	50	61.74	58	49	
5.211		do.	53.13	15	-1.31	31.76	49	53.13	59	49	
6.111		E. L. Harbison	61.92	15	-1.00	37.38	49	61.92	59	49	
7.311		do.	59.95	15	-1.31	42.82	49	59.95	59	49	53
8.113		do.	55.71	15	- .95	37.93	50	55.71	59	49	
13.311		W. T. Carter	c66.14	15	-1.99	35.57	49	c66.14	59	49	
14.111	*	Goff and Johnson	(a)	15	-	36.12	49	66.78	58	49	50,59
16.421		State of New Mexico	50.36	15	-1.73	28.86	43	50.36	59	39	
19.111		A. B. Hennington	53.25	15	-1.17	41.15	50	53.25	59	49	
20.412		G. O. Durham	56.79	15	- .67	33.30	45	56.79	59	40	
23.213		Lee Whitman	c65.39	15	-2.04	33.90	47	c65.39	59	46	
27.311		J. R. Fort Estate	56.79	15	-1.13	35.13	48	56.79	59	48	
31.333	*	Amanda Miller	57.88	16	- .15	44.80	50	58.04	57	50	
14.38.7.113		B. F. Heidel	59.42	15	-1.47	40.73	50	59.42	59	50	
21.311	*	Ida M. Cox	47.33	16	- .87	32.48	49	47.33	59	49	
27.313		Guy Cave	57.29	16	- .69	38.30	51	57.29	59	51	54
31.111		W. J. and D. O. Aldridge	47.24	16	-1.04	37.45	50	47.24	59	49	
15.31.23.311			248.70	20	+ .38	244.97	54	249.08	58	54	
15.33.14.100		State of New Mexico	102.71	18	-1.01	a101.70	58	a103.55	57	54	55
15.35.3.111		J. F. Watson	43.40	15	+ .95	37.30	52	48.08	56	52	
31.422		Joe Price	-	-	-	54.14	51	56.82	57	49	54,59
35.112		E. L. Anderson	-	-	-	39.60	43	49.99	58	40	59
15.36.1.311		Charles Gaskon	59.29	15	- .71	43.60	49	59.29	59	49	
5.211		J. P. Caudill	67.93	15	-1.01	52.73	51	67.93	59	50	
5.311		do.	57.63	15	- .91	40.02	49	57.63	59	49	

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1959 - Continued

Location number		Name	Water levels: Jan. 1959 Level	Jan. 1959 Day	Change 1958-59	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Record: Years missing
15.36.8.111a	*	Mamie Beaty	59.32	16	-1.13	43.37	50	59.32	59	50	51,53
8.311		Walter Adams and B. E. Belew	59.76	15	- .05	40.13	48	59.76	59	48	
9.311		J. L. Kidd	j68.35	16	- .79	44.30	49	j68.35	59	49	
14.131		Mrs. F. O. Graham	51.87	16	- .50	42.38	45	51.87	59	41	46-51,54
17.111		B. F. and Walter Adams	59.73	15	-1.65	44.47	50	59.73	59	49	
20.133		E. B. Parsons	60.59	15	+ .94	45.25	49	61.53	58	49	
21.111		M. J. McLish	62.57	16	- .34	42.55	49	62.57	59	49	
28.133		J. R. and Boss Hale	65.97	16	- .26	44.53	47	65.97	59	47	57
29.112		G. A. Fisher	62.70	15	- .23	44.90	48	62.70	59	48	
29.331		C. E. Alexander	60.02	16	-1.03	47.46	51	60.02	59	49	
29.410a		do.	-	-	-	47.72	50	61.65	57	50	51,59
29.421		Carl Alexander	-	-	-	47.69	48	63.49	58	48	53,55,59
30.411		Phyllis Williams	57.11	16	- .66	46.14	51	57.11	59	49	
31.311		O. A. Payton	-	-	-	47.35	48	57.53	58	48	59
31.423		Mrs. H. J. Burns	61.88	17	+ .65	51.05	49	62.53	58	49	52
32.323		Hobdy Gann	66.04	17	-1.16	53.60	49	66.04	59	49	
33.211		B. J. Harkrider	66.23	16	+ .39	49.14	47	72.54	54	47	57
34.111		do.	(a)	16	-	44.12	48	60.19	54	48	59
15.37.4.113		F. D. Harkey	52.74	16	- .99	37.10	50	52.74	59	50	
7.111		D. H. Crockett	59.55	16	- .81	46.13	50	59.55	59	50	
19.311		Otto Dean	48.41	16	- .29	41.09	50	48.92	55	48	51,53
20.221		J. E. Steele	52.54	16	- .16	35.30	50	52.54	59	49	
21.334	*	R. W. Dean	a59.22	16	-	29.20	45	50.25	56	31	49,57,58
23.112		Nellie Fort	41.63	16	- .77	35.59	51	41.63	59	51	
27.111		C. E. Renshaw	50.30	16	- .61	29.38	43	50.30	59	42	45
28.111		E. T. Wilks	53.60	16	-1.84	30.27	50	53.60	59	50	

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1959 - Continued

Location number		Name	Water levels: Jan. 1959 Level	Jan. 1959 Day	Change 1958-59	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Record: Years missing
15.37.29.111		E. T. Wilks	54.46	16	-1.29	39.08	51	54.46	59	51	
31.132		W. R. Dean	51.25	16	-3.32	35.04	50	51.25	59	49	
33.313		E. B. Yarbro	60.57	16	-1.35	35.97	50	60.57	59	50	
34.133		O. S. Bigham	47.99	16	-1.27	30.64	50	47.99	59	49	
15.38.10.321		Brady Lowe	37.90	16	- .48	31.84	51	37.90	59	51	
22.441		T. C. Fort	36.07	16	+ .01	28.72	42	36.08	58	40	54
35.133		J. W. Waits	(a)	16	-	37.61	50	43.41	58	50	59
16.35.13.112	*	C. E. Hilburn	51.30	17	+ .73	43.38	49	52.03	58	49	
24.111		T. G. Hester	51.80	17	+ .85	44.09	51	52.65	58	51	
26.211		Homer Youngblood	39.54	17	+2.10	35.37	49	41.95	55	49	
16.36.1.431		Mrs. John Easley	j51.97	17	-	39.65	45	j51.97	59	39	58
4.Lot 2		C. D. Gore	62.23	17	- .62	46.59	47	62.23	59	47	
5.Lot 2	*	Miss Ethel Yadon	55.24	17	- .24	53.96	57	55.24	59	57	
5.Lot 10		T. W. Phillips	58.60	17	+ .38	44.53	42	58.98	58	40	48
5.Lot 14		H. E. and L. F. Carr	60.01	17	+1.11	45.23	42	61.12	58	39	
5.Lot 15		I. D. Phillips	59.65	17	+ .59	50.09	48	60.24	58	48	
5.321		Floyd Greer	-	-	-	44.81	42	61.53	58	39	59
5.411		do.	63.07	17	+ .77	45.72	42	63.84	58	39	
8.211		H. W. Gillette	64.78	17	+1.07	53.67	48	65.85	58	48	
10.233		J. E. Simmons	73.01	17	+1.29	50.22	42	74.30	58	40	
11.133		C. G. Hudgens	74.63	17	+1.05	50.71	48	75.68	58	48	
11.232		Lorene Easley	65.72	17	+2.40	53.97	48	69.27	56	48	54,55,57
17.133		B. L. Hobbs	61.12	17	- .41	53.15	49	61.12	59	49	
19.111		J. E. Witherspoon	52.35	17	+3.36	46.58	49	55.71	58	49	
23.240		H. T. Monteith	-	-	-	46.68	55	49.81	58	54	59

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1959 - Continued

Location number		Name	Water levels: Jan. 1959 Level	Jan. 1959 Day	Change 1958-59	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Record: Years missing
16.37.1.311		H. W. Wilks	59.87	16	-0.85	34.99	50	59.87	59	50	
2.Lot 4		Ugi Harada	62.49	16	- .01	38.33	50	62.49	59	50	
7.114		Beal Gleason	45.72	16	+1.54	38.32	50	47.26	58	50	
11.111	*	A. J. Birkshire	60.44	16	-2.13	31.93	49	60.44	59	49	51
14.211		W. H. Green	60.06	16	+ .84	39.73	50	60.90	58	50	
24.431a		Bert Dougherty	50.58	20	- .83	45.01	53	50.58	59	53	
25.111		R. L. Davis	48.84	20	- .13	36.87	50	50.23	56	50	
16.38.3.333	*	State of New Mexico	30.35	16	+ .01	24.60	56	30.36	58	54	
25.144		R. C. Eaves	45.00	20	- .33	31.90	42	45.00	59	41	
26.111		Woody's Acres, Inc.	51.37	20	- .21	35.34	50	52.89	55	50	51,54
26.113		do.	54.04	20	- .78	51.77	54	55.90	55	54	
27.111		do.	56.16	19	-1.05	32.89	50	56.16	59	50	
30.211		Lee Mitchell	47.25	20	-1.20	36.82	51	47.25	59	51	
34.131	*	Woody's Acres, Inc.	(Measurement discontinued)			35.39	47	63.13	58	47	53,59
16.39.20.131		W. P. Cooke	51.02	20	+ .07	32.47	48	51.09	58	48	
29.Lot 2		L. E. Sims, L. J. Holder	-	-	-	54.85	50	65.97	58	50	59
17.33.13.341	*	Potash Co. of America	155.10	18	- .96	146.39	53	155.10	59	53	
13.434		do.	(a)	18	-	c144.24	49	161.79	56	49	54,57-59
17.34.21.143		Duval Sulphur Potash Co.	-	-	-	112.71	51	b125.36	56	51	52,58,59
35.130	*	State of New Mexico	-	-	-	89.88	53	91.98	41	41	59
17.35.35.213	*	do.	37.94	18	+1.94	37.94	59	41.45	41	41	
17.36.3.333	*	U. S. Government	j43.64	18	- .71	42.02	44	44.29	41	39	
27.131	*	Fred Turner	35.49	18	- .13	33.05	49	35.49	59	48	

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1959 - Continued

Location number		Name	Water levels							Record	
			Jan. 1959		Change	Highest		Lowest		Began	Years missing
			Level	Day	1958-59	Level	Year	Level	Year		
17.37.10.211		S. M. Reiland	44.33	17	+1.66	32.87	49	45.99	58	49	
12.113		Lee Stiles Estate	54.07	17	- .54	40.69	50	54.07	59	50	
13.312		W. V. Lawrence	40.50	19	-1.25	26.05	44	40.50	59	39	
26.333		Tim Woods	40.65	19	+ .65	26.21	43	41.30	58	38	
34.111		C. G. Goodwin	42.97	19	- .29	42.13	57	42.97	59	57	
17.38.2.311		W. V. Lawrence	49.54	19	-1.01	43.65	51	49.54	59	49	
7.111a	*	L. R. Sebings	47.94	17	+ .29	35.94	52	48.23	58	52	
8.211		J. J. Handley, Jr.	53.16	19	-	36.46	50	53.16	59	50	58
8.331		G. W. Brown, L. E. Walker	45.04	19	- .51	32.88	51	45.04	59	51	
23.111		W. V. Lawrence	41.92	19	- .51	36.01	49	41.92	59	49	
24.133		do.	-		-	41.30	50	45.33	54	50	59
27.133		W. E. Manning	32.09	19	-1.16	25.55	47	32.09	59	46	
31.311		G. L. Beene	39.61	19	- .25	26.71	49	39.61	59	49	
34.113	*	W. E. Busby	31.88	19	- .75	24.78	44	31.88	59	44	
36.212		King Acres	70.84	19	+ .74	59.60	50	72.19	54	50	
17.39.32.111		do.	78.95	19	- .08	72.92	50	78.95	59	50	
18.35.17.144	*	International Minerals Chemical Corp.	69.92	18	- .18	69.49	56	69.92	59	54	
20.144		do.	-	-	-	75.73	56	75.85	58	54	59
20.214		do.	-	-	-	72.18	56	72.27	58	54	59
18.36.27.111	*	State of New Mexico	42.30	18	- .74	38.13	43	42.30	59	39	
18.38.3.313		Bob Welch	35.49	19	- .17	29.68	52	35.49	59	52	
15.241	*	Ben. Randolph	37.20	19	- .08	26.77	43	38.63	54	40	

See footnotes at end of table.

Table 10.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1959 - Continued

Location number		Name	Water levels: Jan. 1959 Level	Jan. 1959 Day	Change 1958-59	Highest Level	Highest Year	Lowest Level	Lowest Year	Record: Began	Record: Years missing
18.38.19.413		Carl Dennison	(a)	19	-	24.37	49	30.55	54	49	50,52,59
22.433		Catholic Church	54.54	19	-1.19	41.23	49	54.54	59	49	
27.113	*	City of Hobbs	j47.84	19	- .03	44.00	55	48.40	57	55	
30.223	*	J. T. Montgomery, Jr.	c28.89	19	- .60	23.19	48	c28.89	59	31	
19.35.13.412		B. E. Hughes	20.41	18	-2.31	18.08	50	20.41	59	50	
24.222		F. K. Turner	(Measurement discontinued)			17.78	47	20.38	41	39	57,59
19.36.19.113		W. M. Evans	16.06	18	+ .54	15.06	47	17.93	41	39	
19.411		F. K. Turner	16.16	18	+ .11	16.16	59	16.59	49	42	
32.111		do.	16.96	18	+ .13	15.15	42	18.60	40	39	
19.37.1.231		Hobbs Country Club	(a)	19	-	24.75	47	29.91	57	45	53,56,59
32.241	*	O. I. Boyd	12.01	19	+ .12	11.50	33	12.34	49	30	
32.241a		do.	12.03	19	+ .12	12.03	59	a12.82	54	48	57
19.38.2.122		Perry Lamar	(Measurement discontinued)			43.59	42	64.86	57	40	59
2.242		S. J. Purvis	45.91	19	+ .02	44.38	42	52.04	53	41	
2.424		J. R. Glenn	35.54	19	+ .02	35.54	59	46.54	41	41	42,48
34.222		J. O. Coursey	48.57	19	- .05	42.27	49	50.41	57	49	
20.35.1.221	*	H. S. Record	26.09	18	- .13	19.70	44	26.09	59	30	
20.37.9.110	*	W. H. Laughlin	31.76	19	+ .83	27.18	43	42.40	38	30	36,37
20.39.18.344		Earl Kornegay	44.50	19	+ .63	44.50	59	46.08	54	54	

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder chart.
r. February.
w. Also 1958.

Well Descriptions and Seasonal Water-Level Measurements, 1958

11.33.25.442. R. W. and Nancy S. Epperson. Drilled unused water-table well in Ogallala formation, diam 8 in, depth 69 ft, surface casing 3.7. Highest water level 33.55 below lsd, May 8, 1956; lowest 33.97 below lsd, July 14, 1954. Records available: 1953-58. Jan. 8, 33.77; Mar. 17, 33.80; June 26, 33.89; Sept. 9, 33.93.

12.31.23.333. F. E. Dickson. Drilled unused water-table well in Ogallala formation, diam 3 in, depth 148 ft. Highest water level 129.51 below lsd, Sept. 10, 1957; lowest 130.37 below lsd, May 12, 1954, Jan. 13 and Mar. 18, 1955. Records available: 1953-58. Jan. 8, 129.78; Mar. 17, 129.72; June 26, 129.69; Sept. 9, 129.74.

12.34.11.413. A. D. Jones Estate. Drilled unused water-table well in Ogallala formation, diam 15 in, depth 87 ft, cased to 5. Highest water level 29.57 below lsd, May 24, 1949; lowest 32.13 below lsd, Sept. 27, 1955. Records available: 1949-58. Jan. 18, 31.98; Mar. 17, 32.00; June 26, 31.94; Sept. 9, 31.93.

12.36.24.434a. J. C. Clay. Drilled domestic water-table well in Ogallala formation, diam 6 in. Highest water level 22.55 below lsd, Jan. 6, 1956; lowest 25.08 below lsd, Sept. 16, 1954. Records available: 1947-58. Jan. 17, 24.36, pumping; Mar. 19, 24.30; June 24, 24.48; Sept. 12, 24.73.

12.36.29.112. E. D. Holt. Drilled irrigation water-table well in Ogallala formation, diam 14 in, depth 174 ft. Lsd 4006.0 ft above msl. Highest water level 27.63 below lsd (from recorder graph), Aug. 13, 1943; lowest 34.30 below lsd (from recorder graph), Apr. 29, 30, and May 4, 5, 1941. Records available: 1929-58. Jan. 18, 33.85; June 26, 34.12; Sept. 9, 34.26.

12.36.29.241. E. D. Holt. Drilled unused water-table well in Ogallala formation, diam 6 in, depth 50 ft. Highest water level 27.35 below lsd, Mar. 13, 1956; lowest 28.93 below lsd, Sept. 26, 1955. Records available: 1954-58. Jan. 18, 28.28; Mar. 19, 28.31. Measurement discontinued.

13.35.2.111a. State of New Mexico. Drilled unused water-table well in Ogallala formation, depth 44.5 ft. Highest water level 26.43 below lsd, Nov. 30, 1955; lowest 28.78 below lsd, Sept. 12, 1958. Records available: 1953-58. Jan. 17, 28.38; Mar. 19, 28.49; June 24, 28.66; Sept. 12, 28.78.

13.37.7.234. W. D. Patton. Drilled unused water-table in Ogallala formation, diam 6 in. Highest water level 29.56 below lsd, Mar. 27 and Nov. 15, 1947; lowest 34.14 below lsd, Sept. 12, 1958. Records available: 1945-58. Jan. 17, 33.84; Mar. 19, 33.83; June 24, 33.94; Sept. 12, 34.14.

13.37.13.132. Bailey Brownfield. Formerly Taylor. Drilled unused water-table well in Ogallala formation, diam 8 in, depth 42 ft. Highest water level 25.46 below lsd, Aug. 12, 1941; lowest 34.04 below lsd, Sept 12, 1958. Records available: 1930-58. Jan. 17, 33.52; Mar. 19, 33.70; June 24, 33.87; Sept. 12, 34.04.

14.35.33.433. W. A. Anderson. Drilled unused water-table well in Ogallala formation, diam 6 in, depth 62 ft. Lsd 4,013.6 ft above msl. Highest water level 39.65 below lsd, May 21, July 25, 1951, Jan. 9 and May 24, 1952; lowest 44.42 below lsd, Nov. 27, 1956. Records available: 1929-58. Jan. 16, 44.14; Mar. 19, 43.89; June 26, 43.61; Sept. 11, 43.92.

14.36.4.111. Lewis Beaman. Drilled unused water-table well in Ogallala formation, diam 6 in. Highest water level 42.73 below lsd, Mar. 23, 1949; lowest 68.01 below lsd, Sept. 10, 1957. Records available: 1949-58. Jan. 10, 61.92; Mar. 19, 60.98; June 24, 60.56; Sept. 12, 67.20.

14.36.13.211. Mrs. Mattie Field. Drilled unused water-table well in Ogallala formation, diam 12 in, depth 87 ft. Lsd 3,904.6 ft above msl. Highest water level 35.74 below lsd, Jan. 30 and May 24, 1946; lowest 48.70 below lsd, Sept. 11, 1958. Records available: 1929-58. Jan. 11, 48.07; Mar. 19, 48.23; June 24, 48.41; Sept. 11, 48.70.

14.37.14.111. Dean Goff and C. D. Johnson. Formerly M. E. Powell. Drilled irrigation water-table well in Ogallala formation, diam 16 in, depth 140 ft. Highest water level 36.12 below lsd, Jan. 21, 1949; lowest 75.35 below lsd, June 24, 1958. Records available: 1948-58. Jan. 11, 66.78; June 24, 75.35.

14.37.31.333. Amanda Miller. Formerly T. N. and E. N. Miller. Drilled irrigation water-table well in Ogallala formation, diam 16 in, reported depth 130 ft. Highest water level 43.59 below lsd, Mar. 21, 1949. lowest 71.96 below lsd, Sept. 10, 1953. Records available: 1949-58. Jan. 16, 57.73; Mar. 19, 57.07; June 24, 73.79, pumping; Sept. 11, 63.49.

14.38.21.311. Ida M. Cox. Formerly Claude Cox. Drilled irrigation water-table well in Ogallala formation, diam 14 in, depth 105 ft. Highest water level 32.48 below lsd, Jan. 21, 1949; lowest 53.21 below lsd, Sept. 10, 1956. Records available: 1949-58. Jan. 16, 46.46; Mar. 19, 46.31; June 24, 69.74, pumping; Sept. 11, 52.39.

15.36.8.111a. Mamie Beatty. Formerly L. A. Beatty. Drilled unused water-table well in Ogallala formation, diam 6 in, depth 105 ft. Highest water level 41.33 below lsd, Mar. 23, 1949; lowest 71.49 below lsd, Sept. 11, 1958. Records available: 1949-58. Jan. 10, 58.19; Mar. 19, 57.39; June 26, 75.59, nearby well being pumped; Sept. 11, 71.49.

15.37.21.334. R. W. Dean. Drilled stock water-table well in Ogallala formation, diam 8 in, reported depth 80 ft. Highest water level 29.10 below lsd, July 27, 1943; lowest 62.66 below lsd, Sept. 11, 1958. Records available: 1930-58. Jan. 10, 57.93, pumping; Mar. 19, 52.73; June 24, 60.51, pumping, nearby well being pumped; Sept. 11, 62.66.

16.35.13.112. C. E. Hilburn. Formerly W. T. Zuber. Drilled irrigation water-table well in Ogallala formation, diam 12 in, reported depth 100 ft. Highest water level 42.36 below lsd (nearby well being pumped), Mar. 26, 1948; lowest 56.16 below lsd, Sept. 13, 1957. Records available: 1948-58. Jan. 15, 52.03; Mar. 19, 51.54; June 25, 55.28, nearby well being pumped; Sept. 9, 53.84.

16.36.5.Lot 2. Miss Ethel Yaden. (See table 11, page 67.)

16.37.11.111. A. J. Birkshire. Drilled irrigation water-table well in Ogallala formation, diam 16 in, reported depth 118 ft. Highest water level 31.93 below lsd, Jan. 23, 1949; lowest 66.80 below lsd, Sept. 11, 1958. Records available: 1949-58. Jan. 8, 58.31; Mar. 18, 58.29; Sept. 11, 66.80.

16.38.3.333. State of New Mexico. (See table 12, page 68.)

16.38.34.131. Woody's Acres Inc. Formerly Dick Seaborn. Drilled unused water-table well in Ogallala formation, diam 16 in, depth 67 ft. Highest water level 35.06 below lsd, May 22, 1947; lowest 68.31 below lsd, Sept. 26, 1955. Records available: 1947-58. Jan. 9, 63.13; Mar. 18, 61.22; June 26, dry, nearby well being pumped; Sept. 11, dry. Measurement discontinued.

17.33.13.341. Potash Co. of America. (See table 13, page 69 .)

17.34.21.143. Duval Sulphur Potash Co. Drilled industrial water-table well in Ogallala formation, diam 12 in, depth 246 ft. Highest water level 112.71 below lsd, Jan. 21, 1951; lowest 125.05 below lsd, July 26, 1956. Records available: 1951-58. Seasonal measurements will not be made in the future.

17.34.35.130. State of New Mexico. Formerly Phillips Petroleum Co. Drilled unused water-table well in Ogallala formation, diam 8 in, depth 132 ft. Highest water level 89.81 below lsd, July 21, 1953; lowest 91.98 below lsd, Jan. 26, 1941. Records available: 1940-58. Jan. 15, 90.51; Mar. 18, 90.50; June 25, 90.54; Sept. 10, 90.52.

17.35.35.213. State of New Mexico. Formerly Phillips Petroleum Co. Drilled unused water-table well in Ogallala formation, diam 9 in, depth 129 ft. Highest water level 38.60 below lsd, Jan. 16, 1948; lowest 41.45 below lsd, Jan. 26, 1941. Records available: 1940-58. Jan. 15, 39.88; Mar. 18, 39.90; June 25, 39.98; Sept. 10, 40.04.

17.36.3.333. U. S. Government. Drilled unused water-table well in Ogallala formation, diam 2 in, depth 85 ft. Highest water level 42.00 below lsd, Mar. 24 and May 15, 1944; lowest 45.01 below lsd, June 18, 1939. Records available: 1939-58. Jan. 13, 42.93; Mar. 18, 42.93; June 25, 43.10; Sept. 10, 43.18.

17.36.27.131. Fred Turner. Drilled irrigation water-table well in Ogallala formation, diam 12 in, depth 100 ft. Highest water level 33.00 below lsd, Sept. 23, 1949; lowest 36.52 below lsd, May 17, 1950. Records available: 1947-58. Jan. 13, 35.36; Mar. 18, 35.43; June 25, 35.48; Sept. 10, 35.49.

17.38.7.111a. L. R. Sebings. Drilled irrigation water-table well in Ogallala formation, diam 16 in, reported depth 125 ft. Highest water level 35.59 below lsd, Mar. 21, 1952; lowest 53.33 below lsd, Sept 12, 1957. Records available: 1951-58. Jan. 9, 48.23; Mar. 18, 47.31; Sept. 11, 53.29.

17.38.34.113. W. E. Busby. Drilled irrigation water-table well in Ogallala formation, diam 12 in, depth 126 ft. Highest water level 24.78 below lsd, Jan. 15, 1944; lowest 31.66 below lsd, Sept. 3, 1953. Records available: 1943-58. Jan. 9, 31.13; Mar. 18, 31.24; June 26, 31.47; Sept. 11, 31.61.

18.35.17.144. International Mineral and Chemical Corp. Drilled unused water-table well in Ogallala formation, diam 13 in, depth 190 ft. Highest water level 69.41 below lsd, Sept. 14, 1954; lowest 69.86 below lsd, June 25, 1958. Records available: 1953-58. Jan. 14, 69.74; Mar. 18, 69.72; June 25, 69.86; Sept. 10, 69.85.

18.36.27.111. State of New Mexico. Drilled unused water-table well in Ogallala formation, diam 6 in, depth 54 ft. Highest water level 38.09 below lsd, Oct. 23, 1942; lowest 42.24 below lsd, Sept. 10, 1958. Records available: 1939-58. Jan. 13, 41.56; Mar. 18, 41.73; June 25, 42.02; Sept. 10, 42.24.

18.38.15.241. Ben Randolph. Formerly Glenn Staley. Drilled unused water-table well in Ogallala formation, diam 6 in, depth 107 ft. Highest water level 26.65 below lsd, Nov. 4-7, 1942; lowest 42.90 below lsd, July 13, 1954. Records available: 1940-58. Jan. 13, 37.12; Mar. 18, 36.88; June 26, 40.44; Sept. 11, 37.97.

18.38.27.113. City of Hobbs. Drilled municipal well in Ogallala formation, depth 212 ft. Highest water level 42.94 below lsd, Mar. 1, 1954; lowest 60.83 below lsd, July 15, 1954. Records available: 1954-58. Jan. 9, 47.81; Mar. 18, 47.44; June 24, 49.96; Sept. 10, 50.44.

18.38.30.223. J. T. Montgomery, Jr. Formerly Mrs. Sadie Davis. Drilled unused water-table well in Ogallala formation, diam 6 in, depth 50 ft. Highest water level 23.01 below lsd, Nov. 17, 1947; lowest 29.82 below lsd, Nov. 1932. Records available: 1931-58. Jan. 9, 28.29; Mar. 18, 28.35; June 24, 28.93; Sept. 10, 29.29.

19.37.32.241. O. I. Boyd. Formerly Mrs. E. A. Anderson. Dug unused water-table well in Ogallala formation, diam 8 ft, depth 28 ft. Highest water level 10.12 below lsd, Nov. 28, 1941; lowest 13.89 below lsd, June 17, 1934. Records available: 1929-58. Jan. 13, 12.13; Mar. 18, 12.13; June 25, 12.31; Sept. 10, 12.16.

20.35.1.221. H. S. Record. Formerly J. L. Wood. Dug unused water-table well in Ogallala formation, size 4 by 4 ft, depth 28 ft. Highest water level 19.38 below lsd, July 28, 1943; lowest 26.24 below lsd, June 25, 1958. Records available: 1929-58. Jan. 14, 25.96; Mar. 18, 25.97; June 25, 26.24; Sept. 10, 26.12.

20.37.9.110. W. H. Laughlin. Dug and drilled water-table well in Ogallala formation, size 4 by 6 ft, depth 53 ft. Highest water level 26.89 below lsd, Mar. 30, 1943; lowest 47.54 below lsd, Aug. 12, 1935. Records available: 1929-58. Jan. 13, 32.59; Mar. 18, 32.15; June 25, 32.25; Sept. 10, 32.92.

Table 11.--Well 16.36.5.Lot 2. Miss Ethel Yadon. Drilled unused water-table well in Ogallala formation, diameter 16 inches, depth 97 feet. Equipped with automatic stage recorder, November 29, 1956. Highest water level 53.83 below lsd, Mar. 14, 1957; lowest 55.36 below lsd, Sept. 30, 1958. Records available 1956-58

Table 11--Well 16.36.5.Lot 2. Miss Ethel Yadon. Drilled unused water-table well in Ogallala formation, diameter 16 inches, depth 97 feet. Equipped with automatic stage recorder, November 29, 1956. Highest water level 53.83 below lsd, Mar. 14, 1957; lowest 55.36 below lsd, Sept. 30 and Oct. 4, 1958. Records available 1956-58.

Daily highest water level from recorder graph, 1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	54.93	55.01	-	-	54.88	54.91	55.01	55.12	55.21	55.35	55.27	55.28
2	54.92	55.02	-	-	54.88	54.91	55.02	55.12	-	-	55.27	55.27
3	54.94	55.03	-	54.91	54.88	54.92	55.02	-	-	-	55.27	55.25
4	54.95	55.04	-	54.90	54.90	54.93	55.02	55.13	-	55.36	55.25	55.24
5	54.95	55.03	-	54.93	54.89	54.93	55.04	55.12	-	55.35	55.27	55.27
6	54.93	55.03	-	54.95	54.89	54.92	55.01	55.13	55.23	55.34	55.27	55.28
7	54.95	55.03	-	54.91	54.91	54.92	-	55.14	55.24	55.34	55.24	55.26
8	54.95	55.02	-	54.90	54.89	54.93	-	55.14	55.24	55.33	55.26	55.26
9	54.95	55.01	-	54.93	54.90	54.94	-	55.14	55.25	55.33	55.26	55.27
10	54.95	55.02	54.99	54.93	54.93	54.94	-	55.15	55.25	55.33	55.25	55.28
11	-	55.03	55.00	54.93	54.90	54.95	-	55.15	55.27	55.31	55.26	55.25
12	-	55.04	54.98	54.93	-	54.94	-	55.15	55.27	55.31	55.26	55.23
13	-	55.03	54.98	54.93	-	54.96	-	55.15	55.27	55.31	55.26	55.29
14	54.98	55.02	54.97	54.92	-	54.96	-	55.15	55.28	-	55.26	55.29
15	54.98	55.03	54.96	54.92	-	54.96	55.04	55.17	55.29	-	55.26	55.27
16	54.98	55.00	54.95	54.90	-	54.96	55.06	55.16	55.29	-	55.26	55.26
17	54.97	55.01	54.96	54.91	-	54.98	55.06	55.17	55.28	-	55.28	55.27
18	55.01	55.03	54.97	54.91	-	54.97	55.06	55.17	55.29	-	55.28	55.26
19	54.97	55.01	54.98	54.91	-	54.98	55.07	55.17	55.29	-	55.27	55.26
20	54.97	55.04	54.96	54.87	e54.89	54.98	55.08	55.17	55.29	55.26	55.28	55.27
21	54.98	55.03	54.94	54.89	54.86	55.00	55.07	55.17	55.30	55.28	55.27	55.26
22	54.98	-	54.95	54.86	-	54.99	55.08	55.18	55.30	55.27	55.27	55.26
23	54.99	-	54.97	54.88	-	54.99	55.08	55.18	55.28	55.27	55.27	55.27
24	55.01	-	54.96	54.88	-	55.00	55.09	55.19	55.31	55.27	55.28	-
25	55.01	-	54.96	54.90	-	55.01	55.08	55.19	55.31	55.27	55.27	-
26	55.02	-	54.95	54.89	-	55.00	55.09	55.20	55.33	55.26	55.27	-
27	55.02	-	54.96	54.89	-	55.00	55.10	55.20	55.34	55.27	55.25	-
28	54.97	-	54.93	54.88	54.90	54.99	55.09	55.20	55.34	55.27	55.29	-
29	55.02		54.96	54.86	54.89	55.00	55.10	55.20	55.34	55.28	55.28	-
30	55.01		-	54.88	54.89	55.01	55.11	55.21	55.36	55.28	55.27	-
31	55.00		-		54.90		55.11	55.22		55.27		-

e Estimated.

Table 12.--Well 16.38.3.333. State of New Mexico. Test Hole No. 9. Drilled test hole water-table well in Ogallala formation, diameter 8 inches, depth 107 feet. Well cased to 100 feet. Highest water level 24.44 below lsd, May 29 to June 25, 1955; lowest 40.87 below lsd, May 30, 1957. Records available 1953-58.

Daily highest water level from recorder graph, 1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-	-	-	29.37	30.23	34.13	33.47	33.80	37.28	32.66	-	29.97
2	-	-	-	29.33	30.44	33.96	33.29	33.62	36.52	32.58	-	29.93
3	-	-	-	29.28	30.42	34.42	33.13	33.46	36.12	e32.50	-	29.88
4	-	-	-	29.27	31.01	34.53	33.02	33.42	35.93	-	-	29.84
5	-	-	-	29.88	31.05	35.31	32.87	35.62	36.60	-	-	29.83
6	-	-	-	29.82	31.02	35.37	32.82	36.93	38.68	-	-	29.82
7	-	-	-	30.12	31.42	35.18	32.98	37.14	37.31	-	-	29.78
8	h30.36	-	-	31.08	31.28	35.00	33.72	36.83	36.52	-	-	29.77
9	-	-	-	31.00	31.67	35.42	34.28	37.17	36.22	-	-	29.75
10	-	-	-	31.06	31.68	35.27	34.85	36.72	37.07	-	-	29.72
11	-	-	-	30.87	32.25	35.72	34.62	36.57	36.57	-	-	29.69
12	-	-	-	30.72	32.12	35.52	35.00	37.24	35.93	-	-	29.66
13	-	-	-	30.60	31.88	35.15	34.67	37.52	35.48	-	-	29.67
14	-	-	-	30.47	31.68	34.90	34.80	37.75	35.13	-	30.51	29.65
15	-	-	-	30.37	31.53	34.78	34.52	38.15	34.83	-	30.47	29.62
16	-	-	-	30.27	31.36	35.02	35.38	37.03	34.62	31.57	30.46	30.15
17	-	-	-	30.18	31.35	34.57	35.77	36.28	34.40	-	30.42	30.47
18	-	-	h29.76	30.09	31.68	34.19	35.72	36.11	34.23	-	30.39	30.28
19	-	-	29.73	30.00	31.95	33.89	37.15	37.08	34.07	-	30.35	30.22
20	-	-	29.80	29.93	31.69	33.84	36.72	37.62	33.92	-	30.33	30.12
21	-	-	29.72	29.85	31.65	34.02	36.61	37.87	33.77	-	30.28	30.03
22	-	-	30.00	29.78	31.92	34.28	36.63	36.85	33.65	-	30.25	29.95
23	-	-	29.85	29.74	31.87	33.89	36.35	36.17	33.54	-	30.23	29.92
24	-	-	29.72	29.68	32.12	33.83	36.58	35.63	33.42	-	30.18	29.85
25	-	-	29.63	29.62	32.06	34.60	36.12	35.22	33.28	-	30.17	29.79
26	-	-	29.55	29.57	31.83	34.25	35.47	34.88	33.18	-	30.13	29.78
27	-	-	29.48	29.52	31.67	34.14	35.00	34.68	33.08	-	30.09	30.27
28	-	-	29.42	29.50	31.65	34.33	34.65	37.17	32.95	-	30.07	30.63
29	-		29.42	30.49	31.95	33.93	34.38	38.83	32.85	-	30.05	30.74
30	-		29.53	30.28	32.30	33.67	34.14	39.27	32.78	h31.28	30.00	30.57
31	-		29.42		34.47		33.95	38.43		-		30.42

e Estimated.
h Tape measurement.

h Tape measurement.

Table 13.--Well 17.33.13.341. Potash Co. of America. Drilled water-table well in Ogallala formation, diameter 6 inches, depth 252 feet. Cased to 252. Highest water level 146.00 below lsd, Jan. 21, 1953; lowest 155.34 below lsd, Nov. 2, 22, 1958. Records available 1952-58.

Daily highest water level from recorder graph, 1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	153.94	154.11	154.23	154.30	154.33	154.57	154.68	154.65	154.72	155.06	155.27	155.25
2	-	154.09	154.15	154.25	154.38	154.55	154.71	154.68	154.73	155.07	155.34	155.20
3	-	154.05	154.17	154.24	154.50	154.57	154.72	154.64	154.79	155.15	155.32	155.10
4	-	154.07	154.16	154.32	154.44	154.60	154.76	154.70	154.81	155.16	155.24	155.12
5	-	154.09	154.20	154.44	154.43	154.56	154.75	154.71	154.82	155.14	155.32	155.23
6	153.93	154.13	154.14	154.45	154.42	154.51	154.76	154.72	154.85	155.11	155.31	155.16
7	153.91	154.12	154.17	154.31	154.39	154.51	154.80	154.74	154.90	155.17	155.18	155.05
8	153.94	154.15	154.29	154.45	154.42	154.52	154.81	154.77	154.90	155.15	155.22	155.07
9	153.95	154.17	154.24	154.36	154.46	154.53	154.78	154.79	e154.91	155.18	155.23	155.13
10	154.02	154.17	154.35	154.28	154.43	154.53	154.79	154.81	154.90	155.18	155.20	155.16
11	154.02	154.17	154.23	154.28	154.37	154.55	154.78	154.83	154.94	155.18	155.23	155.02
12	154.09	154.19	154.28	-	154.36	154.55	154.75	154.81	154.92	155.21	155.21	154.93
13	e154.00	154.05	154.35	-	154.42	154.61	154.75	154.81	154.85	155.21	155.19	155.27
14	e154.02	154.18	154.23	154.26	154.40	154.61	154.77	154.81	154.90	155.24	155.21	155.24
15	154.11	154.18	154.21	154.29	154.42	154.62	154.77	154.81	154.94	155.24	155.24	155.19
16	154.11	154.08	154.16	154.21	154.40	154.61	154.79	154.78	154.98	155.24	155.23	155.14
17	154.07	154.16	154.25	154.28	154.46	154.64	154.80	154.78	154.88	155.28	155.34	155.21
18	153.96	154.13	154.24	154.32	154.57	154.60	154.79	154.76	154.92	155.28	155.37	155.14
19	e153.99	154.15	154.27	154.37	154.53	154.63	154.81	154.78	154.94	155.24	155.28	155.14
20	154.07	154.19	154.23	154.36	154.50	154.61	154.87	154.78	155.00	155.25	155.31	155.15
21	154.01	154.20	154.21	154.35	154.49	154.62	154.84	154.84	155.05	155.33	155.19	155.06
22	154.05	154.24	154.30	154.23	154.50	154.58	154.82	154.82	154.97	155.28	155.13	155.07
23	154.11	154.20	154.39	154.35	154.51	154.56	154.82	154.86	154.99	155.29	155.15	155.13
24	154.03	154.23	154.33	154.41	154.49	154.56	154.84	154.89	155.07	155.32	155.13	155.07
25	154.15	154.11	154.35	154.32	154.43	154.62	154.85	154.89	155.10	155.27	155.13	155.03
26	154.14	154.12	154.32	154.31	154.43	154.63	154.80	154.90	155.09	155.22	155.12	155.08
27	154.13	154.24	154.36	154.30	154.45	154.62	154.78	e154.87	155.12	155.28	155.07	155.10
28	154.19	154.24	154.28	154.30	154.51	154.61	154.68	e154.88	155.01	155.24	155.24	155.13
29	154.14		154.35	154.37	154.49	154.67	154.68	e154.86	155.00	155.28	155.18	155.22
30	154.03		154.26	154.30	154.52	154.70	154.67	e154.88	155.08	155.28	155.19	155.20
31	154.20		154.21		154.56		154.66	e154.87		155.27		155.16

e Estimated.

TECHNICAL REPORT 24

New Mexico State Engineer
Santa Fe, N. Mex.

GROUND-WATER LEVELS IN NEW MEXICO, 1959

By

H. O. Reeder and Others
U. S. Geological Survey

1962

In a county such as Roosevelt County, where wells are situated in townships both north and south of the base line, the letter N is added to the first segment of the well number if the well is north of the base line, but no letter is added if the well is south of the base line. Similarly, in a county where wells are located in ranges both east and west of the meridian, the letter E is added to the second segment of the well number of those wells east of the meridian. In counties lying entirely within one quadrant of the principal meridian and base line, the direction north or south of the base line or east or west of the meridian is not given.

The designation of a well location is not to be considered the absolute location, as many section lines were not accurately surveyed by instrument at the time of designating the well number.

A modification of this system has been used for wells on grant land in Sunshine Valley in Taos County where land was sectionized according to a system used in Colorado and extended into New Mexico. Within the Sangre de Cristo Grant, townships south of the State line have been designated T. 1 S., and T. 2 S., whereas those north of the line are designated T. 1N., etc.

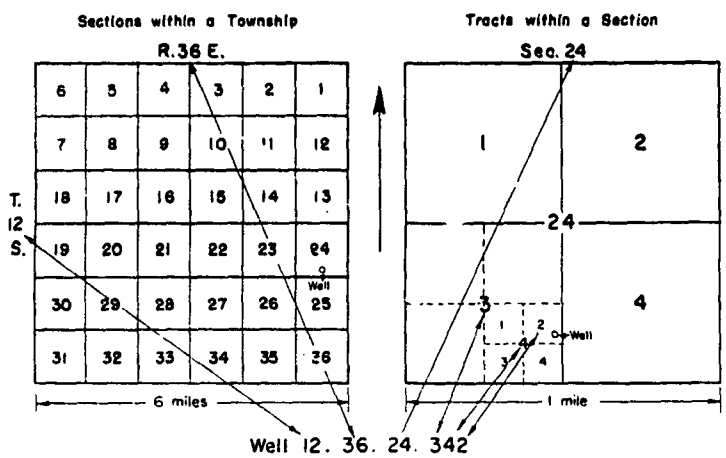


FIGURE 1. -- System of numbering wells in New Mexico.

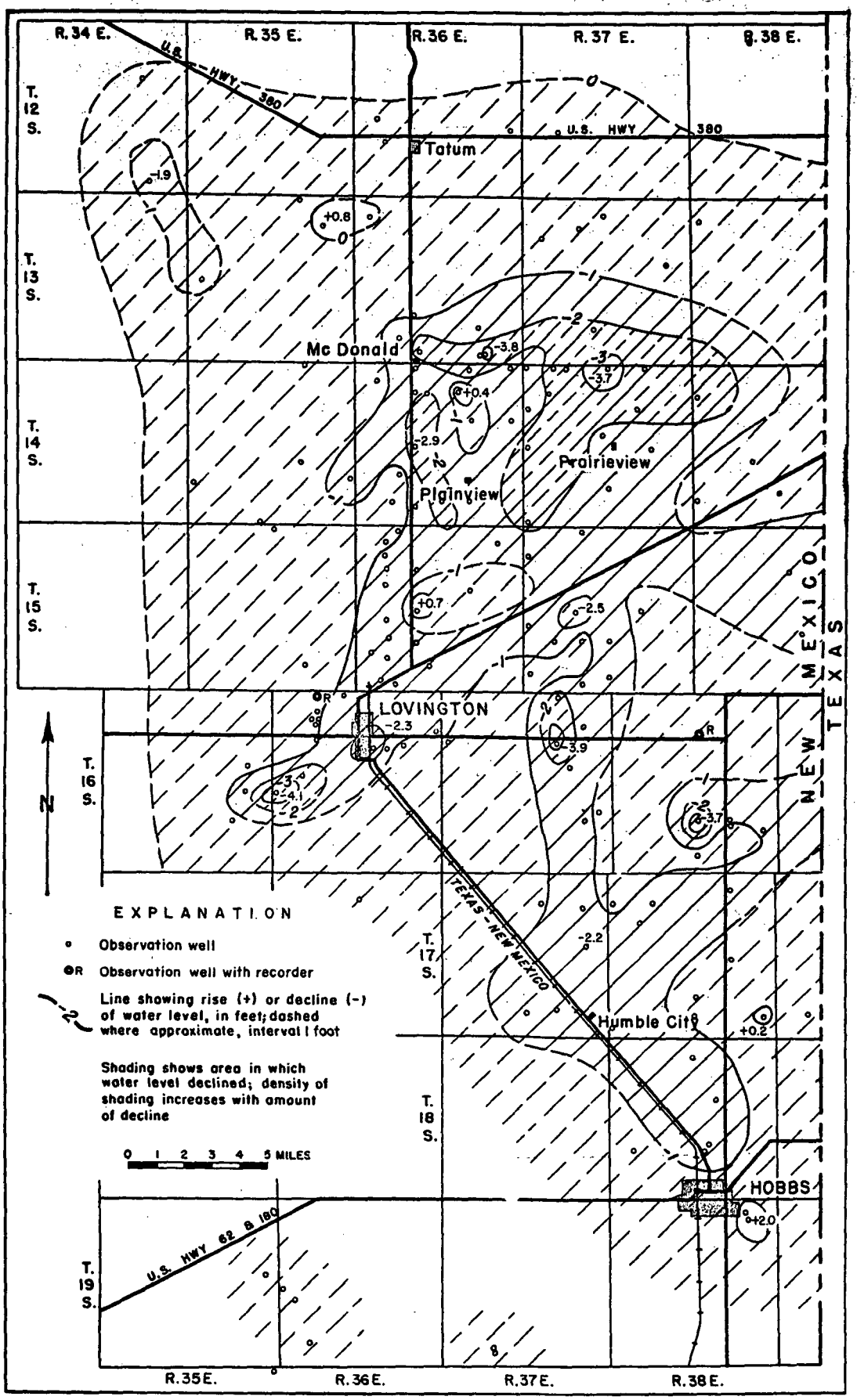


FIGURE 6. Change of ground-water level from January 1959 to January 1960 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

Table 14.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN JANUARY 1960, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1959 TO JANUARY 1960, IN FEET

Location number	Name	WATER LEVELS							RECORD	
		January 1960		Change	Highest		Lowest		Began	Years missing
		Level	Day	1959-60	Level	Year	Level	Year		
11.33.25.442	* R. W. and Nancy S. Epperson	33.75	14	+0.09	33.56	57	33.88	54	54	
12.31.23.333	* F. E. Dickson	129.49	14	+ .16	129.49	60	130.37	55	54	
26.333	do.	131.88	14	- .02	131.86	59	132.29	56	54	
26.333a	do.	130.39	14	+ .11	130.39	60	130.69	56	54	
12.34.11.413	* A. D. Jones Estate	31.90	14	- .07	29.78	50	31.98	58	50	
13.112	do.	(a)	27	-	29.68	48	41.81	55	48	54,56,59,60
35.411	do.	41.82	27	-1.94	35.62	49	48.77	55	48	
12.36.19.223	O. V. Fisher	m34.31	13	-	22.13	43	m34.31	60	39	59
24.434	J. C. Clay	(a)	13	-	+1.32	42	25.27	58	41	49,52,54,59,60
24.434a	* do.	a25.21	13	- .68	22.55	56	a25.21	60	48	
29.112	* E. D. Holt	34.39	13	- .42	k27.69	44	34.39	60	30	55
12.37.20.343	Alvin Breckon	24.26	13	- .40	23.86	59	26.63	55	54	
12.38.4.312	G. C. Copeland	40.65	13	+ .46	39.15	43	43.35	41	41	
13.32.25.214	State of New Mexico	143.00	22	- .06	142.94	59	143.34	55	54	
25.214a	do.	143.06	22	- .08	142.98	59	143.33	55	54	
13.35.2.111a	* do.	29.29	8	- .39	26.53	56	29.29	60	54	
11.222	Abilene Christian College	45.17	8	+ .77	29.14	43	47.29	55	30	32-38
19.211	Clara Elkan	48.44	8	-1.02	44.75	46	49.90	58	41	51,54
13.36.6.413	R. W. Duncan	53.01	8	+21.54	44.94	48	57.25	54	48	59
6.413a	do.	52.71	8	-	51.88	53	57.49	54	53	59
26.324	Mrs. Iona McClish	60.28	27	-1.47	42.24	49	60.28	60	49	
28.113	M. R. Anderson	57.55	8	- .95	44.77	49	57.55	60	49	
32.211	R. E. Hilburn	60.15	8	-1.19	42.76	50	60.15	60	49	56
33.321	L. V. Beaman	63.48	13	-2.60	40.16	47	63.48	60	39	58
35.324	M. J. McClish	b72.29	13	-2.31	53.74	52	b72.29	60	52	
35.413	do.	66.37	13	-3.79	36.07	45	66.37	60	39	52
13.37.4.242	Brady Love	41.44	13	-	37.74	47	43.85	56	39	59
4.422	do.	37.25	13	- .26	33.83	43	39.53	55	40	42,48
7.234	* W. D. Patton	34.78	13	- .50	29.57	48	34.78	60	47	
9.111	B. N. Davenport	39.74	13	- .34	36.33	48	39.74	60	48	
13.132	* Bailey Brownfield	34.71	13	- .44	26.46	42	34.71	60	30	50,53
28.413	J. B. and J. D. Doran	51.58	12	-2.14	31.70	45	51.58	60	45	
13.38.6.341	J. W. Anderson	61.45	13	- .72	43.02	45	61.89	57	40	
14.32.14.121	R. T. Harris	140.38	22	-	-	-	-	-	60	
14.35.2.112	Clara Elkan	40.64	8	- .76	37.06	56	40.64	60	54	55
23.313	Propst and Anderson	38.19	25	- .27	37.80	58	40.61	55	54	
25.241	M. J. Wiggins	51.44	25	-1.30	43.30	50	51.48	56	49	
30.134	State of New Mexico	b46.92	25	- .22	44.97	51	48.93	41	39	
33.433	* W. A. Anderson	43.80	25	- .06	39.65	52	44.41	57	30	
14.36.1.211	G. T. Hanners	64.81	12	-1.84	33.80	48	64.81	60	48	53
2.113	Leslie Estep	75.31	13	-2.57	48.44	50	75.31	60	49	
4.111	* Lewis Beaman	63.17	8	-1.49	43.14	50	63.17	60	50	
6.421	S. A. and W. B. Richardson	51.85	8	- .95	39.03	44	51.85	60	40	45,54,56
9.111	Karl Clayton	60.23	13	-1.43	38.36	44	60.23	60	39	
9.211	O. M. Woodward	67.06	13	-2.00	40.46	43	67.06	60	39	53
10.212	Karl Clayton	71.20	13	+ .45	47.98	49	71.65	59	49	
13.211	* Mrs. Mattie Field	50.91	12	-1.41	35.74	46	50.91	60	30	
14.112	do.	53.43	12	- .42	40.75	46	53.43	60	39	53
21.111	J. W. Mayo	55.56	13	-2.91	42.69	49	55.56	60	49	
29.211	G. T. Hanners	51.52	25	- .93	44.64	51	51.57	56	50	
32.121	E. T. Howell	61.88	25	- .94	53.58	49	62.10	52	49	
33.131	Zula Bell	70.06	7	-1.69	56.92	50	70.06	60	49	
34.111	R. W. Boyd and Sons	69.70	7	-2.71	51.80	50	69.70	60	50	
35.111	Fredia Wright	64.70	7	-1.73	48.36	49	64.70	60	49	51,56
14.37.2.121	Lois C. Hobbs, Hulda Heidel	57.23	12	-2.41	34.47	51	57.23	60	51	
3.113a	do.	60.34	12	-3.75	44.81	52	60.34	60	52	
5.111	S. G. Knoll	63.45	12	-2.33	33.34	50	63.45	60	49	
5.211	do.	54.46	12	-1.33	31.76	49	54.46	60	49	
6.111	E. L. Harbison	63.73	12	-1.81	37.38	49	63.73	60	49	
7.311	do.	61.62	12	-1.67	42.82	49	61.62	60	49	53
8.113	do.	57.79	12	-2.08	37.93	50	57.79	60	49	
13.311	W. T. Carter	68.64	12	-2.50	35.57	49	68.64	60	49	
14.111	* Dean Goff and C. D. Johnson	70.70	12	-	36.12	49	70.70	60	49	50,59
16.421	State of New Mexico	52.25	12	-1.89	28.86	43	52.25	60	39	
19.111	A. B. Hennington	55.47	12	-2.22	41.15	50	55.47	60	49	
20.412	G. O. Durham	58.99	7	-2.20	33.30	45	58.99	60	40	
23.213	Lee Whitman	66.71	12	-1.32	33.90	47	66.71	60	46	
27.311	J. R. Fort Estate	58.34	7	-1.55	35.13	48	58.34	60	48	
31.333	* Amanda Miller	60.10	7	-2.22	44.80	50	60.10	60	50	
14.38.7.113	B. F. Heidel	62.18	12	-2.76	40.73	50	62.18	60	50	
21.311	* Ida M. Cox	47.86	7	- .53	32.48	49	47.86	60	49	
27.313	Guy Cave	57.92	7	- .63	38.30	51	57.92	60	51	54
31.111	W. J. and D. O. Aldridge	48.16	7	- .92	37.45	50	48.16	60	49	

See footnotes at end of table.

Table 14.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1960 - Continued

Location number	Name	WATER LEVELS							RECORD	
		January 1960		Change	Highest		Lowest		Began	Years missing
		Level	Day	1959-60	Level	Year	Level	Year		
15.31.23.311		249.40	14	-0.70	244.97	54	249.40	60	54	
15.33.14.100	State of New Mexico	a101.73	22	+ .98	a101.70	58	a103.55	57	54	55
15.35.3.111	J. F. Watson	43.21	25	+ .19	37.30	52	48.08	56	52	
31.422	Joe Price	56.27	8	-	54.14	51	56.82	57	49	54,59
35.112	E. L. Anderson	50.89	8	-	39.60	43	50.89	60	40	59
15.36.1.311	Charles Gaskin	60.81	25	-1.52	43.60	49	60.81	60	49	
5.211	J. P. Caudill	68.56	25	- .63	52.73	51	68.56	60	50	
5.311	do.	58.08	25	- .45	40.02	49	58.08	60	49	
8.111a	* Mamie Beaty	61.06	25	-1.74	43.37	50	61.06	60	50	51,53
8.311	Walter Adams and B. E. Belew	61.86	25	-2.10	40.13	48	61.86	60	48	
9.311	J. L. Kidd	69.80	7	-1.45	44.30	49	69.80	60	49	
14.131	Mrs. F. O. Graham	52.56	7	- .69	42.38	45	52.56	60	41	46-51, 54
17.111	B. F. and Walter Adams	61.58	25	-1.85	44.47	50	61.58	60	49	
20.133	E. B. Parsons	62.34	25	-1.75	45.25	49	62.34	60	49	
21.111	M. J. McLish	61.85	7	+ .72	42.55	49	62.57	59	49	
28.133	J. R. and Boss Hale	67.02	7	-1.05	44.53	47	67.02	60	47	57
29.112	G. A. Fisher	63.96	27	-1.26	44.90	48	63.96	60	48	
29.331	C. E. Alexander	61.74	27	-1.72	47.46	51	61.74	60	49	
29.410a	do.	63.71	27	-	47.72	50	63.71	60	50	51,59
29.421	Carl Alexander	65.09	27	-	47.69	48	65.09	60	48	53,55,59
30.411	Phyllis Williams	58.83	27	-1.72	46.14	51	58.83	60	49	
31.311	O. A. Payton	59.03	27	-	47.35	48	59.03	60	48	59
31.423	Mrs. H. J. Burns	64.87	27	-2.99	51.05	49	64.87	60	49	52
32.323	Hobdy Gann	67.14	25	-1.10	53.60	49	67.14	60	49	
33.211	B. J. Harkrider	67.56	25	-1.33	49.14	47	72.54	54	47	57
34.111	do.	59.45	25	-	44.12	48	60.19	54	48	59
15.37.4.113	F. D. Harkey	54.03	7	-1.29	37.10	50	54.03	60	50	
7.111	D. H. Crockett	60.58	7	-1.03	46.13	50	60.58	60	50	
19.311	Otto Dean	49.49	11	-1.08	41.09	50	49.49	60	48	51,53
20.221	J. E. Steele	55.08	11	-2.54	35.30	50	55.08	60	49	
21.334	* R. W. Dean	(a)	11	-	29.20	45	50.25	56	31	49,57-60
23.112	Nellie Fort	42.41	12	- .78	35.59	51	42.41	60	51	
27.111	C. E. Renshaw	51.73	11	-1.43	29.38	43	51.73	60	42	45
28.111	E. T. Wilks	53.83	11	- .23	30.27	50	53.83	60	50	
29.111	do.	56.07	11	-1.61	39.08	51	56.07	60	51	
31.132	W. R. Dean	51.79	11	- .54	35.04	50	51.79	60	49	
33.313	E. B. Yarbro	61.62	11	-1.05	35.97	50	61.62	60	50	
34.133	O. S. Bigham	49.54	11	-1.55	30.64	50	49.54	60	49	
15.38.10.321	Brady Lowe	39.75	12	-1.85	31.84	51	39.75	60	51	
22.441	T. C. Fort	37.23	12	-1.16	28.72	42	37.23	60	40	54
35.133	J. W. Waits	45.68	11	-	37.61	50	45.68	60	50	59
16.32.20.311	* Taylor and Holman	257.46	22	-	-	-	-	-	60	
16.35.13.112	* C. E. Hilburn	52.05	21	- .75	43.38	49	52.05	60	49	
24.111	T. G. Hester	53.30	21	-1.50	44.09	51	53.30	60	51	
26.211	Homer Youngblood	40.34	21	- .80	35.37	49	41.95	55	49	
16.36.1.431	Mrs. John Easley	j54.16	21	-2.15	39.65	45	j54.12	60	39	58
4.Lot 2	C. D. Gore	63.28	27	-1.05	46.59	47	63.28	60	47	
5.Lot 2	* Miss Ethel Yadon	55.83	8	- .59	53.96	57	55.83	60	57	
5.Lot 10	T. W. Phillips	m59.47	28	- .87	44.53	42	m59.47	60	40	48
5.Lot 14	H. E. and L. F. Carr	60.84	28	- .83	45.23	42	61.12	58	39	
5.Lot 15	I. D. Phillips	60.74	21	-1.09	50.09	48	60.74	60	48	
5.321	Floyd Greer	m61.12	21	-	44.81	42	61.53	58	39	59
5.411	do.	63.87	21	- .80	45.72	42	63.87	60	39	
8.211	H. W. Gillette	65.76	21	- .98	53.67	48	65.85	58	48	
10.233	J. E. Simmons	75.32	21	-2.31	50.22	42	75.32	60	40	
11.133	C. G. Hudgens	76.48	21	-1.85	50.71	48	76.48	60	48	
11.232	Lorene Easley	65.97	21	- .25	53.97	48	69.27	56	48	54,55,57
17.133	B. L. Hobbs	63.62	20	-2.50	53.15	49	63.62	60	49	
19.111	J. E. Witherspoon	56.49	21	-4.14	46.58	49	56.49	60	49	
23.240	H. T. Monteith	51.11	18	-	46.68	55	51.11	60	54	59
16.37.1.311	H. W. Wilks	61.38	11	-1.51	34.99	50	61.38	60	50	
2.Lot 4	Ugi Harada	64.82	11	-2.33	38.33	50	64.82	60	50	
7.114	Beal Gleason	46.51	21	- .79	38.32	50	47.26	58	50	
11.111	* A. J. Birkshire	63.48	11	-3.04	31.93	49	63.48	60	49	51
14.211	W. H. Green	61.76	19	-1.70	39.73	50	61.76	60	50	
24.431a	Bert Dougherty	51.31	19	- .73	45.01	53	51.31	60	53	
25.111	R. L. Davis	50.76	19	-1.92	36.87	50	50.76	60	50	
16.38.3.333	* State of New Mexico	30.39	11	- .04	24.60	56	30.39	60	54	
25.144	R. C. Eaves	46.02	19	-1.02	31.90	42	46.02	60	41	
26.111	Woody's Acres, Inc.	52.59	19	-1.22	35.34	50	52.89	55	50	51,54
26.113	do.	54.30	19	- .26	51.77	54	55.90	55	54	
27.111	do.	59.84	19	-3.68	32.89	50	59.84	60	50	
30.211	Lee Mitchell	46.69	19	+ .56	36.82	51	47.25	59	51	
34.131a	* Woody's Acres, Inc.	64.32	19	- .85	63.47	59	64.32	60	59	
16.39.20.131	W. P. Cooke	52.34	19	-1.32	32.47	48	52.34	60	48	
29.Lot 2	L. E. Sims, L. J. Holder	67.09	19	-	54.85	50	67.09	60	50	59

See footnotes at end of table.

Table 14.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, IN JANUARY 1960 - Continued

Location number	Name	WATER LEVELS							RECORD	
		January 1960		Change	Highest		Lowest		Began	Years missing
		Level	Day	1959-60	Level	Year	Level	Year		
17.33.13.341	* Potash Co. of America	155.94	15	-0.84	146.39	53	155.94	60	53	
13.434	do.	-	-	-	c144.24	49	161.79	56	49	54,57-60
25.244	* Southwest Potash Co.	145.09	15	-	b142.67	58	145.09	60	58	59
17.34.21.143	Duval Sulphur Potash Co.	-	-	-	112.71	51	b125.36	56	51	52,58-60
35.130	* State of New Mexico	90.02	15	-	89.88	53	91.98	41	41	59
17.35.35.213	* do.	39.32	15	-1.38	37.94	59	41.45	41	41	
17.36.3.333	* U. S. Government	43.78	15	- .14	42.02	44	44.29	41	39	
27.131	* Dorothy Scarabauer	35.73	15	- .24	33.05	49	35.73	60	48	
17.37.10.211	S. M. Reiland	45.28	18	- .95	32.87	49	45.99	58	49	
12.113	Lee Stiles Estate	55.55	20	-1.48	40.69	50	55.55	60	50	
13.312	W. V. Lawrence	42.74	20	-2.24	26.05	44	42.74	60	39	
26.333	Tim Woods	41.72	20	-1.07	26.21	43	41.72	60	38	
34.111	C. G. Goodwin	44.30	20	-1.33	42.13	57	44.30	60	57	
17.38.2.311	W. V. Lawrence	51.14	19	-1.60	43.65	51	51.14	60	49	
7.111a	* L. R. Sebings	48.72	18	- .78	35.94	52	48.72	60	52	
8.211	J. J. Handley, Jr.	55.03	18	-1.87	36.46	50	55.03	60	50	58
8.331	G. W. Brown, L. E. Walker	46.65	18	-1.61	32.88	51	46.65	60	51	
23.111	W. V. Lawrence	42.44	19	- .52	36.01	49	42.44	60	49	
24.133	do.	45.70	19	-	41.30	50	45.70	60	50	59
27.133	W. E. Manning	32.77	19	- .68	25.55	47	32.77	60	46	
31.311	G. L. Beene	41.07	19	-1.46	26.71	49	41.07	60	49	
34.113	* W. E. Busby	32.64	19	- .76	24.78	44	32.64	60	44	
36.212	King Acres	70.65	19	+ .19	59.60	50	72.19	54	50	
17.39.32.111	do.	79.28	19	- .33	72.92	50	79.28	60	50	
18.35.17.144	* International Minerals Chemical Corp.	70.20	15	- .28	69.49	56	70.20	60	54	
20.144	do.	75.80	15	-	75.73	56	75.85	58	54	59
20.214	do.	72.17	15	-	72.17	60	72.27	58	54	59
18.36.27.111	* State of New Mexico	41.91	15	+ .39	38.13	43	42.30	59	39	
18.38.3.313	Bob Welch	36.94	19	-1.45	29.68	52	36.94	60	52	
15.241	* Ben. Randolph	38.76	19	-1.56	26.77	43	38.76	60	40	
19.413	Carl Dennison	-	-	-	24.37	49	30.55	54	49	50,52,59,60
22.433	Catholic Church	56.21	19	-1.67	41.23	49	56.21	60	49	
27.113	* City of Hobbs	j49.28	20	-1.44	44.00	55	j49.28	60	55	
30.223	* J. T. Montgomery, Jr.	29.70	19	- .81	23.19	48	29.70	60	31	
19.35.13.412	B. E. Hughes	j21.63	15	-1.22	18.08	50	j21.63	60	50	
19.36.19.113	W. M. Evans	16.68	15	- .62	15.06	47	17.93	41	39	
19.411	F. K. Turner	16.25	15	- .09	16.16	59	16.59	49	42	
32.111	do.	17.08	15	- .12	15.15	42	18.60	40	39	
19.37.1.231	Hobbs Country Club	28.01	20	-	24.75	47	29.91	57	45	53,56,59
32.241	* O. I. Boyd	12.23	20	- .22	11.50	33	12.34	49	30	
32.241a	do.	a12.31	20	- .28	12.03	59	a12.82	54	48	57
19.38.2.242	S. J. Purvis	45.24	20	+ .67	44.38	42	52.04	53	41	
2.424	J. R. Glenn	33.54	20	+2.00	33.54	60	46.54	41	41	42,48
34.222	J. O. Coursey	-	-	-	42.27	49	50.41	57	49	60
20.35.1.221	* H. S. Record	(Measurement discontinued)			19.70	44	26.09	59	30	60
1.221a	* do.	a26.01	15	+ .20	a26.01	60	a26.21	59	59	
20.37.9.110	* W. H. Laughlin	31.41	20	+ .35	27.18	43	42.40	38	30	36,37
20.39.18.344	Earl Kornegay	44.71	20	- .21	44.50	59	46.08	54	54	

* Additional measurements and other data for this well are listed in following tabulation of seasonal measurements or daily records of water level.

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder graph.
m. Measurement uncertain.

Table 15.--SEASONAL WATER LEVELS IN WELLS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN 1959, AND HIGHEST AND LOWEST RECORDED LEVELS, IN FEET BELOW LAND-SURFACE DATUM

Location	11.33.25.442		12.31.23.333		12.34.11.413		12.36.24.434a		12.36.29.112	
Name	R. W. and Nancy S. Epperson		F. E. Dickson		A. D. Jones Estate		J. C. Clay		E. D. Holt	
Record	1953-59		1953-59		1949-59		1947-59		1929-59	
Highest	May 1956	33.55	Sept. 1957	129.51	May 1949	29.57	Jan. 1956	22.55	Aug. 1943	k27.63
Lowest	Sept. 1959	34.36	May 1954, Jan., Mar. 1955	130.37	Sept. 1955	32.13	Mar. 1959	25.87	Sept. 1959	34.41
1959	Jan. 13	33.84	Jan. 13	129.65	Jan. 13	31.83	Jan. 14	24.53	Jan. 14	33.97
Levels	Mar. 9	33.84	Mar. 9	129.79	Mar. 9	31.84	Mar. 9	25.87	Mar. 9	33.99
	June 1	33.88	June 1	129.46	June 1	31.93	June 3	24.47	June 1	34.13
	Sept. 14	34.36	Sept. 14	129.33	Sept. 14	31.91	Sept. 16	a24.74	Sept. 16	34.41

Location	13.35.2.111a		13.37.7.234		13.37.13.132		14.35.33.433		14.36.4.111	
Name	State of New Mexico		W. D. Patton		Bailey Brownfield		W. A. Anderson		Lewis Beaman	
Record	1953-59		1945-59		1930-59		1929-59		1949-59	
Highest	Nov. 1955	26.43	Mar., Nov. 1947	29.56	Aug. 1941	25.46	May 1951, Jan., May 1952	39.65	Mar. 1949	42.73
Lowest	Sept. 1959	29.40	Sept. 1959	34.77	Sept. 1959	34.54	Nov. 1956	44.42	Sept. 1959	68.25
1959	Jan. 14	28.90	Jan. 14	34.28	Jan. 14	34.27	Feb. 3	43.74	Jan. 14	61.68
Levels	Mar. 9	29.00	Mar. 9	34.25	Mar. 9	34.32	Mar. 10	43.84	Mar. 9	60.97
	June 1	29.18	June 1	34.53	June 3	34.40	Sept. 15	43.89	June 3	63.48
	Sept. 16	29.40	Sept. 16	34.77	Sept. 16	34.54			Sept. 16	68.25

Location	14.36.13.211		14.37.14.111		14.37.31.333		14.38.21.311		15.36.8.111a	
Name	Mrs. Mattie Field		Dean Goff and C. D. Johnson		Amanda Miller		Ida M. Cox		Mamie Beatty	
Record	1929-59		1948-59		1949-59		1949-59		1949-59	
Highest	Jan., May 1946	35.74	Jan. 1949	36.12	Mar. 1949	43.59	Jan. 1949	32.48	Mar. 1949	41.33
Lowest	June 1959	49.74	Sept. 1959	86.79	Sept. 1953	71.96	Sept. 1956	53.21	Sept. 1958	71.49
1959	Jan. 15	49.50	Mar. 9	72.99	Jan. 16	57.88	Jan. 16	47.33	Jan. 16	59.32
Levels	Mar. 9	49.49	Sept. 16	86.79	Mar. 9	60.74	Mar. 9	47.09	Mar. 10	59.53
	June 3	49.74			June 2	61.05	June 3	48.83	June 2	62.40
	Sept. 16	49.29			Sept. 15	71.42	Sept. 16	49.92	Sept. 15	66.82

Location	15.37.21.334		16.32.20.311		16.35.13.112		16.36.5.Lot 2		16.37.11.111	
Name	R. W. Dean		Taylor and Holman		C. E. Hilburn		Miss Ethel Yadon		A. J. Birkshire	
Record	1930-59		1959		1948-59				1949-59	
Highest	July 1943	29.10			Mar. 1948	c42.36			Jan. 1949	31.93
Lowest	Sept. 1958	62.66			Sept. 1957	56.16			Sept. 1959	72.97
1959	Jan. 16	a59.22	Oct. 16	257.50	Jan. 17	51.30	See table 16		Jan. 16	60.44
Levels	Mar. 10	a54.90	Nov. 10	257.48	Mar. 10	50.90			Sept. 14	72.97
	June 2	a62.49	Dec. 18	257.41	June 1	52.42				
					Sept. 14	54.85				

Location	16.38.3.333		16.38.34.131a *		17.33.13.341		17.34.35.130		17.35.35.213	
Name	State of New Mexico		Woody's Acres Inc.		Potash Co. of America		State of New Mexico		State of New Mexico	
Record			1952, 1958-59				1940-59		1940-59	
Highest			July 1952	45.45			July 1953	89.81	Jan. 1959	37.94
Lowest			Sept. 1958	71.53			Jan. 1941	91.98	Jan. 1941	41.45
1959	See table 17		Jan. 19	63.47	See table 18		June 2	89.83	Jan. 18	37.94
Levels			Mar. 10	62.39			Sept. 15	89.85	Mar. 10	38.97
			June 2	65.91					June 2	38.89
			Sept. 14	70.86					Sept. 15	39.19

Location	17.36.3.333		17.36.27.131		17.38.7.111a		17.38.34.113		18.35.17.144	
Name	U.S. Government		Dorothy Scarbauer		L. R. Sebings		W. E. Busby		International Minerals Chemical Corp.	
Record	1939-59		1947-59		1951-59		1943-59		1953-59	
Highest	Mar., May 1944	42.00	Sept. 1949	33.00	Mar. 1952	35.59	Jan. 1944	24.78	Sept. 1954	69.41
Lowest	June 1939	45.01	May 1950	36.52	Sept. 1957	53.33	Sept. 1959	32.39	Sept. 1959	70.12
1959	Jan. 18	43.64	Jan. 18	35.49	Jan. 17	47.94	Jan. 19	31.88	Jan. 18	69.92
Levels	Mar. 10	j43.68	Mar. 10	35.48	June 2	49.98	Mar. 10	31.99	Mar. 10	70.00
	June 2	43.60	June 2	35.58	Sept. 14	52.62	June 2	32.13	June 2	70.06
	Sept. 14	43.12	Sept. 15	35.61			Sept. 15	32.39	Sept. 15	70.12

Location	18.36.27.111		18.38.15.241		18.38.27.113		18.38.30.223		19.37.32.241	
Name	State of New Mexico		Ben Randolph		City of Hobbs		J. T. Montgomery, Jr.		O. I. Boyd	
Record	1939-59		1940-59		1954-59		1931-59		1929-59	
Highest	Oct. 1942	38.09	Nov. 1942	26.65	Mar. 1954	42.94	Nov. 1947	23.01	Nov. 1941	10.12
Lowest	Jan. 1959	42.30	July 1954	42.90	July 1954	60.83	Nov. 1932	29.82	June 1934	13.89
1959	Jan. 18	42.30	Jan. 19	37.20	Jan. 19	47.84	Jan. 19	c28.89	Jan. 19	12.01
Levels	Mar. 10	42.24	Mar. 10	37.20	Mar. 10	46.97	Mar. 10	29.11	Mar. 10	12.07
	June 2	42.16	June 2	38.68			June 2	29.40	June 2	12.10
	Sept. 15	42.02	Sept. 15	42.41			Sept. 15	29.77	Sept. 15	12.22

Table 15.--SEASONAL WATER LEVELS IN WELLS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN 1959 - Continued

Location	20.35.1.221 *		20.35.1.221a *		20.37.9.110	
Name	H. S. Record		H. S. Record		W. H. Laughlin	
Record	1929-59		1957-59		1929-59	
Highest	July 1943	19.38	June 1957	25.97	Mar. 1943	26.89
Lowest	June 1958	26.24	June 1958	a26.36	Aug. 1935	47.54
1959	Jan. 18	26.09	Jan. 18	a26.21	Jan. 19	31.76
Levels	Mar. 10	26.61			Mar. 10	30.16
	June 2	25.99			June 2	31.14
	Sept. 15	25.74			Sept. 15	31.86

* Additional data for this well are listed as follows:
16.38.34.131a. 1952: May 23, b54.82; July 22, 45.45; 1958: Sept. 11, 71.53.
20.35.1.221. Measurement discontinued.
20.35.1.221a. 1957: June 6, 25.97; Sept. 11, 26.08; 1958: June 25, a26.36; Sept. 10, 26.00.

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder graph.

TECHNICAL REPORT 27

New Mexico State Engineer
Santa Fe, N. Mex.

GROUND-WATER LEVELS IN NEW MEXICO, 1960

By

W. C. Ballance and Others
United States Geological Survey

with

a section on

PECOS VALLEY ARTESIAN CONSERVANCY DISTRICT RECORDER WELLS

by

R. L. Borton
State Engineer Office

1962

TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY

By

W. C. Ballance

The Tatum-Lovington-Hobbs area is on the High Plains in Lea County in southeastern New Mexico. The Ogallala Formation of Pliocene age is the principal aquifer from which ground water is obtained. The Lea County Underground Water Basin was extended on October 1, 1952, by order of the State Engineer and now includes 2,183 square miles.

Water levels in this area have been measured since 1929 by the Geological Survey in cooperation with the State Engineer, to determine the effects of pumping and precipitation on ground-water storage. Water levels were measured in 189 wells in January 1960 and in 187 wells in January and February 1961; 36 of these wells also were measured in March, June, and September 1959 and 38 were measured seasonally in 1960. Recording gages were maintained on the same three wells during both years.

Water levels measured in January or February 1961 (table 13) and January 1960 were used in preparing the map (fig. 9) showing net changes in water levels in 1960. The seasonal measurements in 1960 are given in table 14 and the daily levels are listed in tables 15, 16, and 17.

In 1960 water levels in northern Lea County declined under a total of about 160 square miles in five areas: in the McDonald-Prairieview area, between Plainview and Lovington, in the vicinity of Lovington, east of Lovington near the State line, and just north of Hobbs. Water levels declined more than a foot in 12 square miles east of Lovington near the State line.

Water levels declined in 1959 throughout the irrigated area except in a few wells in which pumping effects were noted in January 1959. In 1959, water levels declined more than a foot under about 300 square miles, more than 2 feet under about 40 square miles, and more than 3 feet under about 4 square miles.

The continued withdrawal of ground water for irrigation has resulted in water-level declines throughout the irrigated area from January 1950 to January 1960 (fig. 10). The greatest decline was in the heavily pumped area east of McDonald and in the vicinity of Prairieview. The greatest water-level decline measured was about 30 feet. Areas of large declines also were noted south of Plainview, east of Lovington, and northeast of Humble City.

Precipitation was above normal throughout the area in 1960. Tatum received 22.85 inches (16.12 inches of which occurred during the growing season), 11.51 inches more than 1959. Lovington received 23.13 inches (14.34 inches during the growing season), 10.14 inches more than 1959. Hobbs received 20.41 inches (13.87 inches during the growing season), 5.77 inches more than 1959.

The above-normal precipitation for 1960 resulted in reduced pumping for irrigation and probably increased recharge to the ground-water body. Electric-power records of 243 irrigation pumps for 1959 and 1960 were compared. This comparison and a number of pump ratings indicate that about 105,000 acre-feet of water was pumped during 1960, to irrigate about 95,000 acres. About 149,000 acre-feet was pumped on roughly the same acreage in 1959. In addition to pumpage for irrigation, about 17,000 acre-feet of ground water in northern Lea County was pumped for municipal, livestock, and industrial supplies.

Municipal populations in 1960 were: Hobbs, 25,275; Lovington, 9,660; and Tatum, 1,168.

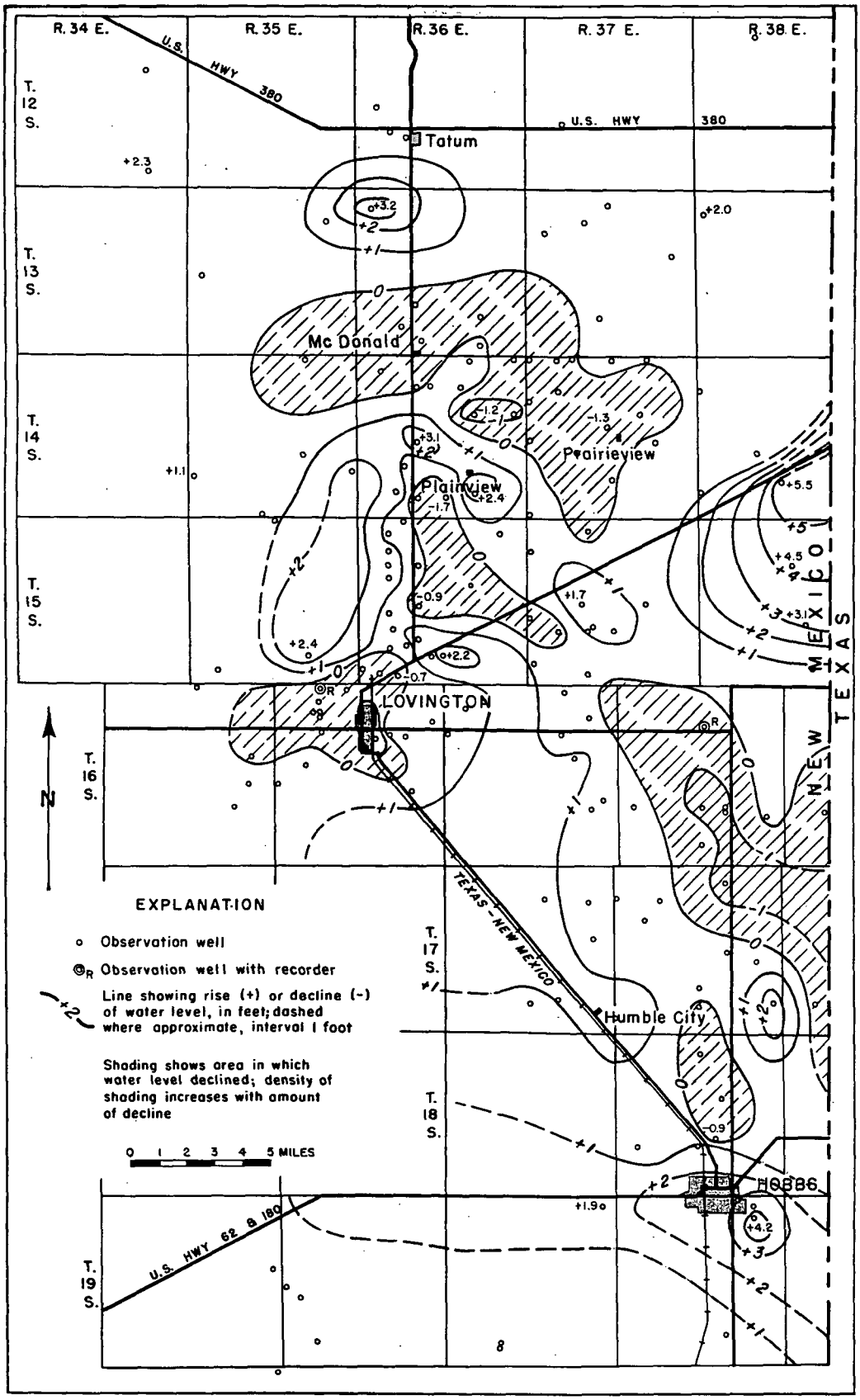


FIGURE 9. Change of ground-water level from January 1960 to January 1961 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

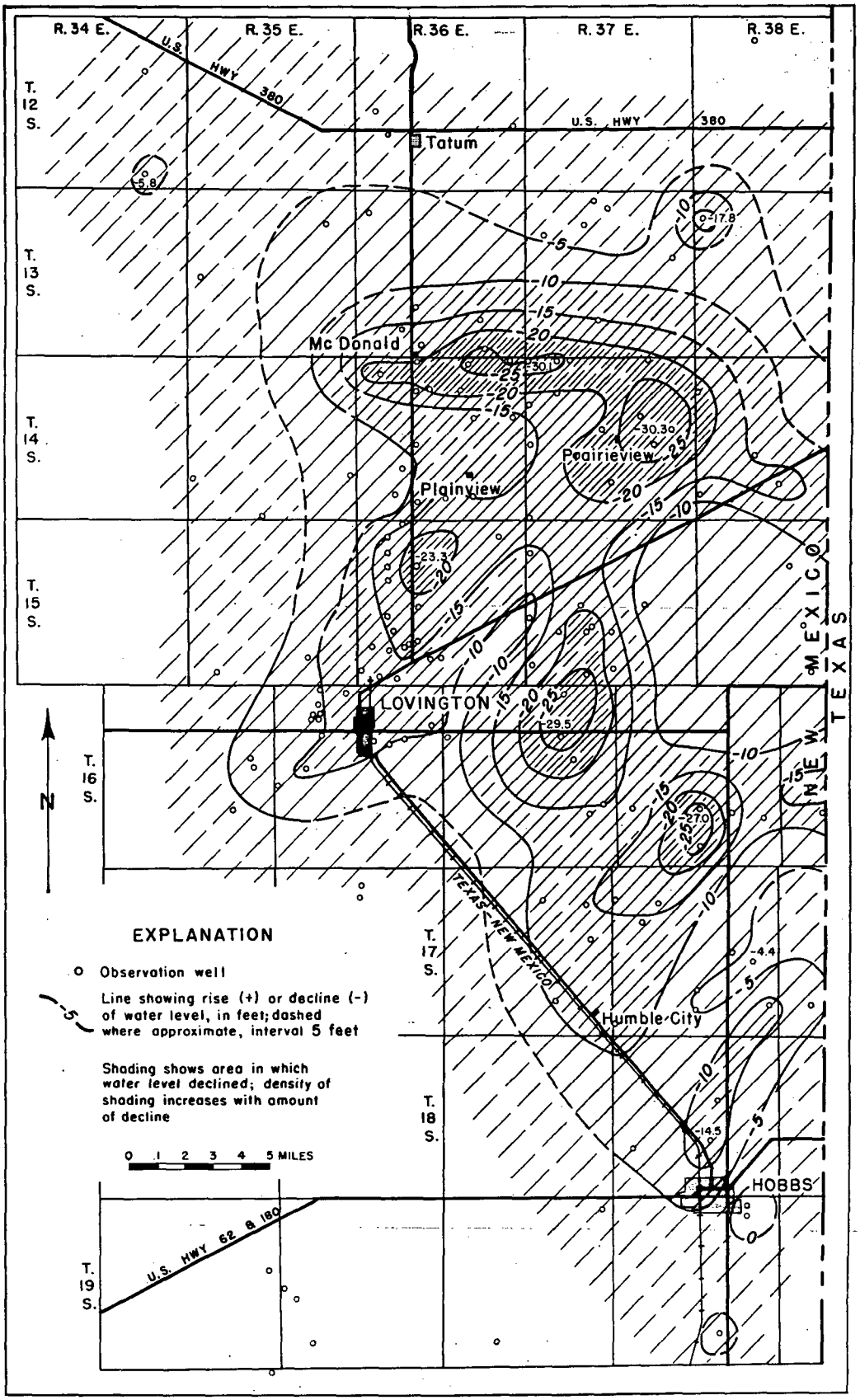


FIGURE 10. Change of ground-water level from January 1950 to January 1960 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

Table 13.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1961, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1960 TO JANUARY 1961, IN FEET

(Aquifer: AL, Alluvium; CR, Rocks of Cretaceous age, undivided; OG, Ogallala Formation)

Location number	Name	Aquifer	WATER LEVELS: January 1961 Level	January 1961 Day	Change 1960-61	Highest Level	Highest Year	Lowest Level	Lowest Year	RECORD: Began	Years missing
			Lea County								
11.33.25.442 *	R. W. and Nancy S. Epperson	OG	33.65	n13	+0.10	33.56	57	33.88	54	54	
12.34.11.413 *	A. D. Jones Estate	OG	31.79	n13	+ .11	29.78	50	31.98	58	50	
13.113	do.	OG	32.91	n13	-	29.68	48	41.81	55	48	54,56,59,60
35.411	do.	OG	39.54	n13	+2.28	35.62	49	48.77	55	48	
12.36.19.223	O. V. Fisher	OG	am32.75	n8	+1.56	22.13	43	m34.31	60	39	59
24.434	J. C. Clay	OG	(a)	n8	-	+1.32	42	25.27	58	41	49,52,54,59,61
24.434a *	do.	OG	(a)	n8	-	22.55	56	a25.21	60	48	61
29.112 *	E. D. Holt	OG	34.20	n8	+ .19	k27.69	44	34.39	60	30	55
12.37.20.343	Alvin Breckon	CR	23.88	n8	+ .38	23.86	59	26.63	55	54	
12.38.4.312	G. C. Copeland	CR	40.13	n8	+ .52	39.15	43	43.35	41	41	
13.32.25.214	State of New Mexico	OG	-	-	-	142.94	59	143.34	55	54	61
25.214a	do.	OG	143.06	22	- .08	142.98	59	143.33	55	54	
13.35.2.111a *	do.	OG	29.64	n8	- .35	26.53	56	n29.64	61	54	
11.222	Abilene Christian College	OG	43.51	n8	+1.66	29.14	43	47.29	55	30	32-38
19.211	Clara Elkan	OG	47.45	n7	+ .99	44.75	46	49.90	58	41	51,54
13.36.6.413	R. W. Duncan	OG	49.84	n8	+3.17	44.94	48	57.25	54	48	59
6.413a	do.	OG	49.50	n8	+3.21	n49.50	61	57.49	54	53	59
26.324	Mrs. Iona McClish	OG	60.60	n7	- .32	42.24	49	n60.60	61	49	
28.113	M. R. Anderson	OG	57.65	n8	- .10	44.77	49	n57.65	61	49	
32.211	R. E. Hilburn	OG	61.06	n8	- .91	42.76	50	n61.06	61	49	56
33.321	L. V. Beaman	OG	63.53	n7	- .05	40.16	47	n63.53	61	39	58
35.324	M. J. McClish	OG	72.21	n7	+ .08	53.74	52	b72.29	60	52	
35.413	do.	OG	66.36	n7	+ .01	36.07	45	66.37	60	39	52
13.37.4.242	Brady Lowe	OG	40.72	n8	+ .72	37.74	47	43.85	56	39	59
4.422	do.	OG	36.74	n8	+ .51	33.83	43	39.53	55	40	42,48
7.234 *	W. D. Patton	OG	34.53	n8	+ .25	29.57	48	34.78	60	47	
9.111	B. N. Davenport	OG	39.59	n8	+ .15	36.33	48	39.74	60	48	
13.132 *	Bailey Brownfield	OG	34.81	n8	- .10	26.46	42	n34.81	61	30	50,53
28.413	J. B. and J. D. Doran	OG	51.49	n7	+ .09	31.70	45	51.58	60	45	
13.38.6.341	J. W. Anderson	OG	59.44	n8	+2.01	43.02	45	61.89	57	40	
14.32.14.121 *	R. T. Harris	OG	-	-	-	-	-	-	-	60	61
14.35.2.112 *	Clara Elkan	OG	41.37	n7	- .73	37.06	56	n41.37	61	54	55
23.313	Propst and Anderson	OG	37.71	n9	+ .48	n37.71	61	40.61	55	54	
25.241	M. J. Wiggins	OG	49.20	n9	+2.24	43.30	50	51.48	56	49	
30.134	W. A. Anderson	OG	45.83	n9	+1.09	44.97	51	48.93	41	39	
33.433 *	do.	OG	43.51	n9	+ .29	39.65	52	44.41	57	30	
14.36.1.211	G. T. Hanners Estate	OG	65.26	n7	- .45	33.80	48	n65.26	61	48	53
2.113	Leslie Estep	OG	74.73	n7	+ .58	48.44	50	75.31	60	49	
4.111 *	Lewis Beaman	OG	(Measurement discontinued)			43.14	50	63.17	60	50	61
6.421	S. A. and W. B. Richardson	OG	52.01	n7	- .16	39.03	44	n52.01	61	40	45,54,56
9.111	Karl Clayton	OG	60.63	n6	- .40	38.36	44	n60.63	61	39	
9.211	O. M. Woodward	OG	67.03	n6	+ .03	40.46	43	67.06	60	39	53
10.212	Karl Clayton	OG	70.43	n6	+ .77	47.98	49	71.65	59	49	
13.211 *	Mrs. Mattie Field	OG	52.22	n6	-1.31	35.74	46	n52.22	61	30	
14.112	do.	OG	54.66	n6	-1.23	40.75	46	n54.66	61	39	53
21.111	J. W. Mayo	OG	52.50	n6	+3.06	42.69	49	55.56	60	49	
29.211	G. T. Hanners Estate	OG	51.39	n2	+ .13	44.64	51	51.57	56	50	
32.121	E. T. Howell	OG	60.00	n2	+1.88	53.58	49	62.10	52	49	
33.131	Zula Bell	OG	70.64	16	- .58	56.92	50	70.64	61	49	
34.111	R. W. Boyd and Sons	OG	71.43	16	-1.73	51.80	50	71.43	61	50	
35.111	Fredia Wright	OG	62.25	16	+2.45	48.36	49	64.70	60	49	51,56
14.37.2.121	Lois C. Hobbs, and Hulda Heidel	OG	57.22	n7	+ .01	34.47	51	57.23	60	51	
3.113a	do.	OG	59.33	n7	+1.01	44.81	52	60.34	60	52	
5.111	S. G. Knoll	OG	61.55	n7	+1.90	33.34	50	63.45	60	49	
5.211	do.	OG	54.67	n7	- .21	31.76	49	n54.67	61	49	
6.111	E. L. Harbison	OG	64.63	n7	- .90	37.38	49	n64.63	61	49	
7.311	do.	OG	62.50	n7	- .88	42.82	49	n62.50	61	49	53
8.113	do.	OG	58.50	n7	- .71	37.93	50	n58.50	61	49	
13.311	W. T. Carter	OG	m68.65	n6	- .01	35.57	49	nm68.65	61	49	
14.111 *	Dean Goff and C. D. Johnson	OG	71.25	n6	- .55	36.12	49	n71.25	61	49	50,59
16.421	State of New Mexico	OG	53.57	n6	-1.32	28.86	43	n53.57	61	39	
19.111	A. B. Hennington	OG	55.55	n6	- .08	41.15	50	n55.55	61	49	
20.412	G. O. Durham	OG	59.94	n6	- .95	33.30	45	n59.94	61	40	
23.213	Lee Whitman	OG	66.33	n6	+ .38	33.90	47	66.71	60	46	
27.311	J. R. Fort Estate	OG	58.42	n6	- .08	35.13	48	n58.42	61	48	
31.333 *	Amanda Miller	OG	59.97	16	+ .13	44.80	50	60.10	60	50	
14.38.7.113	F. L. Heidel	OG	61.99	n6	+ .19	40.73	50	62.18	60	50	
21.311 *	Ida M. Cox	OG	48.01	n6	- .15	32.48	49	n48.01	61	49	
27.313	Guy Cave	OG	52.43	n6	+5.49	38.30	51	57.92	60	51	54

See footnotes at end of table.

Table 13.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES IN JANUARY 1961 - Continued

Location number	Name	Aquifer	WATER LEVELS							RECORD	
			January 1961		Change	Highest		Lowest		Began	Years missing
			Level	Day	1960-61	Level	Year	Level	Year		
14.38.31.111	W. J. and D. C. Aldridge	OG	47.35	n6	+0.81	37.45	50	48.16	60	49	
15.33.14.100	State of New Mexico	OG	a102.36	16	- .63	a101.70	58	a103.55	57	54	55
15.35.3.111	J. F. Watson	OG	42.23	n9	+ .98	37.30	52	48.08	56	52	
31.422	Joe Price	OG	56.19	n2	+ .08	54.14	51	56.82	57	49	54,59
35.112	E. L. Anderson	OG	48.50	n2	+2.39	39.60	43	50.89	60	40	59
15.36.1.311	J. W. Scott	OG	60.22	23	+ .59	43.60	49	60.81	60	49	
5.211	J. P. Caudill	OG	68.17	n2	+ .39	52.73	51	68.56	60	50	
5.311	do.	OG	57.90	n2	+ .18	40.02	49	58.08	60	49	
8.111a *	Mamie Beaty	OG	59.80	n2	+1.26	43.37	50	61.06	60	50	51,53
8.311	Walter Adams and B. E. Belew	OG	60.73	n2	+1.13	40.13	48	61.86	60	48	
9.311	J. L. Kidd	OG	69.24	n6	+ .56	44.30	49	69.80	60	49	
14.131	Mrs. F. O. Graham	OG	j52.83	n6	- .27	42.38	45	jn52.83	61	41	46-51,54
17.111	B. F. and Walter Adams	OG	60.21	n2	+1.37	44.47	50	61.58	60	49	
20.133	E. B. Parsons	OG	62.25	n2	+ .09	45.25	49	62.34	60	49	
21.111	M. J. McLish	OG	62.79	n6	- .94	42.55	49	n62.79	61	49	
28.133	J. R. and Boss Hale	OG	65.43	n6	+1.59	44.53	47	67.02	60	47	57
29.112	J. P. Fisher	OG	63.37	n2	+ .59	44.90	48	63.96	60	48	
29.331	C. E. Alexander	OG	61.73	n2	+ .01	47.46	51	61.74	60	49	
29.410a	do.	OG	m63.17	n2	+ .54	47.72	50	63.71	60	50	51,59
29.421	Carl Alexander	OG	(Measurement discontinued)			47.69	48	65.09	60	48	53,55,59,61
30.411	Phyllis Williams	OG	57.82	n2	+1.01	46.14	51	58.83	60	49	
31.311	O. A. Payton	OG	60.03	n2	- .63	47.35	48	n60.03	61	48	59
31.423	Mrs. H. J. Burns	OG	65.35	n2	- .48	51.05	49	n65.35	61	49	52
32.323	Hobdy Gann	OG	67.83	19	- .69	53.60	49	67.83	61	49	
33.211	B. J. Harkrider	OG	65.68	19	+1.88	49.14	47	72.54	54	47	57
34.111	do.	OG	57.23	19	+2.22	44.12	48	60.19	54	48	59
15.37.4.113	F. D. Harkey	OG	54.50	n6	- .47	37.10	50	n54.50	61	50	
7.111	D. H. Crockett	OG	59.93	n6	+ .65	46.13	50	60.58	60	50	
19.311	Otto Dean	OG	49.70	20	- .21	41.09	50	49.70	61	48	51,53
20.221	J. E. Steele	OG	53.37	20	+1.71	35.30	50	55.08	60	49	
21.334 *	R. W. Dean	OG	a57.37	20	-	29.20	45	50.25	56	31	49,57,58-60
23.112	Nellie Fort	OG	41.69	n6	+ .72	35.59	51	42.41	60	51	
27.111	C. E. Renshaw	OG	50.32	20	+1.41	29.38	43	51.73	60	42	45
28.111	E. T. Wilks	OG	52.61	20	+1.22	30.27	50	53.83	60	50	
29.111	do.	OG	56.22	20	- .15	39.08	51	56.22	61	51	
31.132	W. R. Dean	OG	50.91	20	+ .88	35.04	50	51.79	60	49	
33.313	E. B. Yarbro	OG	61.57	20	+ .05	35.97	50	61.62	60	50	
34.133	O. S. Bigham	OG	49.38	20	+ .16	30.64	50	49.54	60	49	
15.38.10.321	Brady Lowe	OG	35.26	n6	+4.49	31.84	51	39.75	60	51	
22.441	T. C. Fort	OG	34.17	n9	+3.06	28.72	42	37.23	60	40	54
35.133	J. W. Waits	OG	44.75	n9	+ .93	37.61	50	45.68	60	50	59
16.32.20.311 *	Taylor and Holman	OG	257.18	13	+ .28	257.18	61	257.46	60	60	
16.35.13.112 *	C. E. Hilburn	OG	52.33	16	- .28	43.38	49	52.33	61	49	
24.111	T. G. Hester	OG	52.45	16	+ .85	44.09	51	53.30	60	51	
26.211	Homer Youngblood	OG	40.33	16	+ .01	35.37	49	41.95	55	49	
16.36.1.431	Mrs. John Easley	OG	53.99	17	+ .13	39.65	45	j54.12	60	39	58
4.Lot 2	C. D. Gore	OG	63.83	n2	- .55	46.59	47	n63.83	61	47	
5.Lot 2 *	Miss Ethel Yadon	OG	55.95	17	- .12	53.96	57	55.95	61	57	
5.Lot 10	T. W. Phillips	OG	59.80	n9	- .33	44.53	42	n59.80	61	40	48
5.Lot 14	H. E. and L. F. Carr	OG	61.04	n9	- .20	45.23	42	61.12	58	39	
5.Lot 15	I. D. Phillips	OG	60.79	n9	- .05	50.09	48	n60.79	61	48	
5.321	Floyd Greer	OG	j60.58	n9	+ .54	44.81	42	61.53	58	39	59
5.411	do.	OG	63.99	n9	- .12	45.72	42	n63.99	61	39	
8.211	H. W. Gillette	OG	66.16	17	- .40	53.67	48	66.16	61	48	
10.233	J. E. Simmons	OG	76.43	16	-1.11	50.22	42	76.43	61	40	
11.133	C. G. Hudgens	OG	76.17	17	+ .31	50.71	48	76.48	60	48	--
11.232	Lorene Easley	OG	b70.22	n9	-4.25	53.97	48	bn70.22	61	48	54,55,57
17.133	B. L. Hobbs	OG	62.83	16	+ .79	53.15	49	63.62	60	49	
19.111	J. E. Witherspoon	OG	b59.56	16	-3.07	46.58	49	b59.56	61	49	
23.240	H. T. Monteith	OG	60.39	n3	+ .72	46.68	55	51.11	60	54	59
16.37.1.311	H. W. Wilks	OG	61.32	20	+ .06	34.99	50	61.38	60	50	
2.Lot 4	Ugi Harada	OG	64.40	20	+ .42	38.33	50	64.82	60	50	
7.114	Beal Gleason	OG	46.01	17	+ .50	38.32	50	47.26	58	50	
11.111 *	A. J. Birkshire	OG	64.69	19	-1.21	31.93	49	64.69	61	49	51
14.211	W. H. Green	OG	60.72	19	+1.04	39.73	50	61.76	60	50	
24.431a	Bert Dougherty	OG	50.94	19	+ .37	45.01	53	51.31	60	53	
25.111	R. L. Davis	OG	50.54	19	+ .22	36.87	50	50.76	60	50	
16.38.3.333 *	State of New Mexico	OG	30.75	20	- .36	24.60	56	30.75	61	54	
25.144	R. C. Eaves	OG	45.82	20	+ .20	31.90	42	46.02	60	41	
26.111	Woody's Acres, Inc.	OG	53.97	20	-1.38	35.34	50	53.97	61	50	51,54
26.113	do.	OG	55.37	20	-1.07	51.77	54	55.90	55	54	
27.111	do.	OG	61.34	20	-1.50	32.89	50	61.34	61	50	
30.211	Lee Mitchell	OG	46.25	19	+ .44	36.82	51	47.25	59	51	
34.131a *	Woody's Acres, Inc.	OG	64.69	20	- .37	63.47	59	64.69	61	59	
16.39.20.131	W. P. Cooke	OG	52.95	20	- .61	32.47	48	52.95	61	48	

See footnotes at end of table.

Table 13.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES IN JANUARY 1961 - Continued

Location number	Name	Aquifer	WATER LEVELS							RECORD	
			January 1961		Change	Highest		Lowest		Began	Years missing
			Level	Day	1960-61	Level	Year	Level	Year		
16.39.29.Lot 2	L. E. Sims, and L. J. Holder	OG	67.30	20	-0.21	54.85	50	67.30	61	50	59
17.33.13.341 *	Potash Co. of America	OG	156.91	17	- .97	146.39	53	156.91	61	53	
13.434	do.	OG	175.54	17	-	c144.24	49	175.54	61	49	54,57-60
25.244	Southwest Potash Co.	OG	-	-	-	b142.67	58	145.09	60	58	59,61
17.34.21.143	Duval Sulphur Potash Co.	OG	125.80	17	-	112.71	51	125.80	61	51	52,58-60
35.130 *	State of New Mexico	OG	90.09	17	- .07	89.88	53	91.98	41	41	59
17.35.35.213 *	do.	OG	38.25	17	+ .07	37.94	59	41.45	41	41	
17.36.3.333 *	U. S. Government	OG	42.40	17	+1.38	42.02	44	44.29	41	39	
27.131 *	Dorothy Scarbauer	OG	34.77	17	+ .96	33.05	49	35.73	60	48	
17.37.10.211	S. M. Reiland	OG	43.96	20	+1.32	32.87	49	45.99	58	49	
12.113	Lee Stiles Estate	OG	56.03	20	- .48	40.69	50	56.03	61	50	
13.312	W. V. Lawrence	OG	42.59	n3	+ .15	26.05	44	42.74	60	39	
26.333	Tim Woods	OG	40.70	n3	+1.02	26.21	43	41.72	60	38	
34.111	C. G. Goodwin	OG	43.45	n3	+ .85	42.13	57	44.30	60	57	
17.38.2.311	W. V. Lawrence	OG	52.85	20	-1.71	43.65	51	52.85	61	49	
7.111a *	L. R. Sebings	OG	48.41	20	+ .31	35.94	52	48.72	60	52	
8.211	J. J. Handley, Jr.	OG	54.70	20	+ .33	36.46	50	55.03	60	50	58
8.331	G. W. Brown, and L. E. Walker	OG	46.07	20	+ .58	32.88	51	46.65	60	51	
23.111	W. V. Lawrence	OG	41.77	n3	+ .67	36.01	49	42.44	60	49	
24.133	do.	OG	45.19	n3	+ .51	41.30	50	45.70	60	50	59
27.133	W. E. Manning	OG	32.69	n3	+ .08	25.55	47	32.77	60	46	
31.311	G. L. Beene	OG	39.00	n3	+2.07	26.71	49	41.07	60	49	
34.113 *	W. E. Busby	OG	32.74	n3	- .10	24.78	44	n32.74	61	44	
36.212	King Acres	OG	68.32	n3	+2.51	59.60	50	72.19	54	50	
17.39.32.111	do.	OG	79.57	n3	- .29	72.92	50	n79.57	61	50	
18.35.17.144 *	International Minerals Chemical Corp.	OG	70.29	17	- .09	69.49	56	70.29	61	54	
20.144	do.	OG	75.70	17	+ .10	75.70	61	75.85	58	54	59
20.214	do.	OG	72.16	17	+ .01	72.16	61	72.27	58	54	59
18.36.27.111 *	State of New Mexico	OG	40.30	18	+1.61	38.13	43	42.30	59	39	
18.38.3.313	Bob Welch	OG	37.74	n3	- .80	29.68	52	n37.74	61	52	
15.241 *	Ben. Randolph	OG	39.38	n3	- .62	26.77	43	n39.38	61	40	
19.413	Carl Dennison	OG	-	-	-	24.37	49	30.55	54	49	50,52,59-61
22.433	Catholic Church	OG	57.08	n3	- .87	41.23	49	n57.08	61	49	
27.113 *	City of Hobbs	OG	48.17	18	+1.14	44.00	55	j49.28	60	55	
30.223 *	J. T. Montgomery, Jr.	OG	29.47	n3	+ .23	23.19	48	29.70	60	31	
19.35.13.412	B. E. Hughes	AL	20.75	18	+ .88	18.08	50	j21.63	60	50	
19.36.19.113	W. M. Evans	AL	16.02	18	+ .66	15.06	47	17.93	41	39	
19.411	F. K. Turner	AL	16.07	18	+ .18	16.07	61	16.59	49	42	
32.111	do.	AL	16.43	18	+ .65	15.15	42	18.60	40	39	
19.37.1.231	Hobbs Country Club	OG	26.10	18	+1.91	24.75	47	29.91	57	45	53,56,59
32.241 *	O. I. Boyd	AL	12.04	18	+ .19	11.50	33	12.34	49	30	
32.241a	do.	AL	12.05	18	+ .26	12.03	59	a12.82	54	48	57
19.38.2.242	S. J. Purvis	OG	42.01	18	+3.23	42.01	61	52.04	53	41	
2.424	J. R. Glenn	OG	29.33	18	+4.21	29.33	61	46.54	41	41	42,48
34.222	J. O. Coursey	OG	49.22	18	-	42.27	49	50.41	57	49	60
20.35.1.221a *	H. S. Record	AL	b25.32	18	+ .69	b25.32	61	a26.21	59	59	
20.37.9.110 *	W. H. Laughlin	AL	29.29	18	+2.12	27.18	43	42.40	38	30	36,37
20.39.18.344	Earl Kornegay	OG	c44.10	18	+ .61	c44.10	61	46.08	54	54	
			Chaves County								
12.31.23.333 *	F. E. Dickson	OG	129.34	17	+0.15	129.34	61	130.37	55	54	
26.333	do.	OG	131.50	17	+ .38	131.86	59	132.29	56	54	
26.333a	do.	OG	130.23	17	+ .16	130.23	61	130.69	56	54	
15.31.23.311		OG	-	-	-	244.97	54	249.40	60	54	61

* Additional measurements and other data for this well are listed in following tabulation of seasonal measurements or daily records of water level.

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder graph.
m. Measurement uncertain.
n. February.

Table 14.--SEASONAL WATER LEVELS IN WELLS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN 1960, AND HIGHEST AND LOWEST RECORDED LEVELS, IN FEET BELOW LAND-SURFACE DATUM

Location	11.33.25.442		12.31.23.333		12.34.11.413		12.36.24.434a		12.36.29.112	
Name	R. W. and Nancy S. Epperson		F. E. Dickson		A. D. Jones Estate		J. C. Clay		E. D. Holt	
Record	1953-60		1953-60		1949-60		1947-60		1929-60	
Highest	May 1956	33.55	Sept. 1960	129.05	May 1949	29.57	Jan. 1956	22.55	Aug. 1943	k27.63
Lowest	Sept. 1959	34.36	Jan., Mar. 1955	130.37	Sept. 1955	32.13	Mar. 1959	25.87	June 1960	34.59
1960	Jan. 14	33.75	Jan. 14	129.49	Jan. 14	31.90	Jan. 13	a25.21	Jan. 13	34.39
Levels	Mar. 22	33.77	Mar. 22	129.48	Mar. 22	31.89	Mar. 24	a24.60	Mar. 22	34.43
	June 15	33.84	June 15	129.16	June 15	31.92			June 15	34.59
	Sept. 7	33.76	Sept. 7	129.05	Sept. 7	31.93			Sept. 7	34.55

Location	13.35.2.111a		13.37.7.234		13.37.13.132		14.32.14.121		14.35.2.112	
Name	State of New Mexico		W. D. Patton		Bailey Brownfield					
Record	1953-60		1945-60		1930-60		1959-60		1960	
Highest	Nov. 1955	26.43	Mar., Nov. 1947	29.56	Aug. 1941	25.46	Dec. 1959	140.16		
Lowest	Sept. 1960	29.57	Sept. 1960	34.97	June 1960	34.94	Jan. 1960	140.38		
1960	Jan. 8	29.29	Jan. 13	34.78	Jan. 13	34.71	Jan. 22	140.38	Jan. 8	40.64
Levels	Mar. 24	29.42	Mar. 24	34.76	Mar. 24	34.84	Mar. 28	a146.34	June 23	41.14
	June 15	29.54	June 15	34.95	June 15	34.94	June 6	140.26	Sept. 2	41.21
	Sept. 2	29.57	Sept. 9	34.97	Sept. 14	34.27	Sept. 6	140.32		

Location	14.35.33.433		14.36.4.111		14.36.13.211		14.37.14.111		14.37.31.333	
Name	W. A. Anderson		Lewis Beaman		Mrs. Mattie Field		Dean Goff and C. D. Johnson		Amanda Miller	
Record	1929-60		1949-60		1929-60		1948-60		1949-60	
Highest	May, July 1951, Jan. May 1952	39.65	Mar. 1949	42.73	Jan., May 1946	35.74	Jan. 1949	36.12	Mar. 1949	43.59
Lowest	Nov. 1956	44.42	Sept. 1959	68.25	Sept. 1960	51.66	Sept. 1959	86.79	Sept. 1953	71.96
1960	Jan. 25	43.80	Jan. 8	63.17	Jan. 12	50.91	Jan. 12	70.70	Jan. 7	60.10
Levels	Mar. 22	43.63	Mar. 24	62.21	Mar. 21	51.12	Mar. 21	69.58	Mar. 21	59.11
	June 3	43.70	Measurement discontinued		June 15	51.38	June 15	72.65	June 6	62.90
					Sept. 8	51.66	Sept. 8	84.92	Sept. 7	67.16

Location	14.38.21.311		15.36.8.111a		15.37.21.334		16.32.20.311		16.35.13.112	
Name	Ida M. Cox		Mamie Beatty		R. W. Dean		Taylor and Holman		C. E. Hilburn	
Record	1949-60		1949-60		1930-60		1959-60		1948-60	
Highest	Jan. 1949	32.48	Mar. 1949	41.33	July 1943	29.10	Sept. 1960	257.17	Mar. 1948	c42.36
Lowest	Sept. 1956	53.21	Sept. 1958	71.49	Sept. 1958	62.66	Oct. 1959	257.50	Sept. 1957	56.16
1960	Jan. 7	47.86	Jan. 25	61.06	Mar. 24	55.27	Jan. 22	257.46	Jan. 21	52.05
Levels	Mar. 21	47.54	Mar. 21	60.13	June 3	a62.63	Mar. 28	257.37	June 2	53.42
	June 15	49.37	June 6	64.20	Sept. 7	a62.37	Sept. 7	257.17	Sept. 16	55.14
	Sept. 7	51.66	Sept. 14	62.48						

Location	16.36.5.Lot 2		16.37.11.111		16.38.3.333		16.38.34.131a		17.33.13.341	
Name	Miss Ethel Yadon		A. J. Birkshire		State of New Mexico		Woody's Acres Inc.		Potash Co. of America	
Record			1949-60				1952, 1958-60			
Highest			Jan. 1949	31.93			July 1952	45.45		
Lowest			Sept. 1960	73.88			Sept. 1958	71.53		
1960	See table 15		Jan. 11	63.48	See table 16		Jan. 19	64.32	See table 17	
Levels			June 14	69.11			June 3	b71.14		
			Sept. 2	73.88			Sept. 16	b70.46		

Location	17.34.35.130		17.35.35.213		17.36.3.333		17.36.27.131		17.38.7.111a	
Name	State of New Mexico		State of New Mexico		U. S. Government		Dorothy Scarbauer		L. R. Sebings	
Record	1940-60		1940-60		1939-60		1947-60		1951-60	
Highest	July 1953	89.81	Jan. 1959	37.94	Mar., May 1944	42.00	Sept. 1949	33.00	Mar. 1952	35.59
Lowest	Jan. 1941	91.98	Jan. 1941	41.45	June 1939	45.01	May 1950	36.52	Sept. 1960	53.47
1960	Jan. 15	90.02	Jan. 15	39.32	Jan. 15	43.78	Jan. 15	35.73	Jan. 18	48.72
Levels	Mar. 23	90.13	Mar. 23	39.38	Mar. 23	43.56	Mar. 23	35.75	Mar. 23	48.98
	June 2	90.24	June 2	39.48	June 2	43.62	June 2	35.80	June 3	52.96
	Sept. 1	90.28	Sept. 1	38.50	Sept. 1	42.74	Sept. 1	34.96	Sept. 2	53.47

Location	17.38.34.113		18.35.17.144		18.36.27.111		18.38.15.241		18.38.27.113	
Name	W. E. Busby		International Minerals Chemical Corp.		State of New Mexico		Ben Randolph		City of Hobbs	
Record	1943-60		1953-60		1939-60		1940-60		1954-60	
Highest	Jan. 1944	24.78	Sept. 1954	69.41	Oct. 1942	38.09	Nov. 1942	26.65	Mar. 1954	42.94
Lowest	June 1960	32.90	June 1960	70.39	March 1960	43.09	July 1954	42.90	July 1954	60.83
1960	Jan. 19	32.64	Jan. 15	70.20	Jan. 15	41.91	Jan. 19	38.76	Jan. 20	49.31
Levels	Mar. 23	32.73	Mar. 23	70.31	Mar. 23	43.09	Mar. 23	38.69	Mar. 29	49.12
	June 3	32.90	June 2	70.39	June 3	41.99	June 3	40.77	June 3	50.99
	Sept. 2	32.33	Sept. 1	70.18	Sept. 1	40.74	Sept. 2	41.35	Sept. 2	48.64

See footnotes at end of table.

Table 14.--SEASONAL WATER LEVELS IN WELLS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN 1960 - Continued

Location	18.38.30.223		19.37.32.241		20.35.1.221a		20.37.9.110		
Name	J. T. Montgomery,Jr.		O. I. Boyd		H. S. Record		W. H. Laughlin		
Record	1931-60		1929-60		1957-60		1929-60		
Highest	Nov. 1947	23.01	Nov. 1941	10.12	Sept. 1960	24.97	Mar. 1943	26.89	
Lowest	June 1960	30.64	June 1934	13.89	Sept. 1957	26.08	Aug. 1935	47.54	
1960	Jan. 19	29.70	Jan. 20	12.23	Jan. 15	a26.01	Jan. 20	31.41	
Levels	Mar. 23	29.95	Mar. 23	12.24	Mar. 23	25.94	Mar. 23	31.13	
	June 3	30.64	June 3	12.13	June 3	a26.03	June 3	31.63	
	Sept. 2	30.23	Sept. 1	11.26	Sept. 1	24.97	Sept. 1	30.66	

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
k. From recorder graph.

Table 15.--Daily water level in well 16.36.5.Lot 2, Tatum-Lovington-Hobbs area, Lea County, N. Mex.
Miss Ethel Yadon. Drilled unused water-table well in Ogallala Formation, diam 16 in, depth 97 ft.
Highest water level 53.83 Mar. 14, 1957; lowest 56.02 Dec. 12, 18, 1960; Records available 1956-60.

Daily highest water level from recorder graph, 1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	55.81	55.86	55.80	55.74	55.76	55.85	55.92	55.87	55.84	55.91	55.97	-
2	55.82	55.83	55.81	55.76	55.75	55.85	55.92	55.87	55.85	55.91	55.97	-
3	55.81	55.85	55.82	55.74	55.76	55.84	55.92	55.86	55.86	55.91	55.98	-
4	55.81	55.87	55.82	55.74	55.76	55.85	55.93	55.85	55.85	55.91	55.99	-
5	55.82	55.86	55.82	55.73	55.78	55.85	55.94	55.85	55.85	55.92	55.99	-
6	55.83	55.84	55.82	55.72	55.80	55.85	55.95	55.85	55.86	55.93	55.98	-
7	55.83	55.84	55.80	55.72	55.78	55.86	55.95	55.85	55.86	55.91	55.96	-
8	55.83	55.82	55.79	55.73	55.78	55.87	55.97	55.84	55.87	55.91	55.98	-
9	55.83	55.80	55.79	55.73	55.80	55.86	55.97	55.84	55.89	55.91	56.00	-
10	55.83	55.84	55.80	55.72	55.80	55.86	55.97	55.86	55.87	55.92	55.99	-
11	55.82	55.86	55.80	55.72	55.80	55.86	55.97	55.84	55.87	55.91	55.99	-
12	55.83	55.84	55.79	55.74	55.78	55.88	55.97	55.85	55.87	55.92	55.99	56.02
13	55.82	55.81	55.78	55.74	55.78	55.88	55.97	55.85	55.87	55.92	55.99	56.01
14	55.84	55.82	55.78	55.73	55.80	55.88	55.97	55.85	55.87	55.93	55.99	56.00
15	55.83	55.83	55.78	55.72	55.80	55.88	55.97	55.84	55.89	55.93	55.99	56.01
16	55.82	55.82	55.79	55.73	55.82	55.90	55.97	55.84	55.88	55.93	56.00	56.01
17	55.85	55.84	55.79	55.74	55.79	55.89	55.96	55.84	55.88	55.92	56.00	56.01
18	55.86	55.82	55.79	55.72	55.80	55.90	55.96	55.85	55.87	55.94	56.00	56.02
19	55.85	55.81	55.79	55.73	55.81	55.88	55.95	55.83	55.87	55.96	56.00	56.00
20	55.85	55.83	55.79	55.71	55.82	55.89	55.95	55.84	55.88	55.95	56.01	56.01
21	55.85	55.81	55.78	55.72	55.81	55.89	55.95	55.85	55.89	55.95	56.01	55.99
22	55.85	55.81	55.74	55.73	55.81	55.89	55.95	55.85	55.89	55.95	-	56.00
23	55.85	55.83	55.73	e55.73	55.82	55.89	55.92	55.86	55.89	55.96	-	56.00
24	55.85	55.83	55.74	e55.74	55.82	55.89	55.91	55.85	55.90	55.96	-	56.00
25	55.85	55.81	55.74	e55.74	55.83	55.91	55.91	55.85	55.90	55.97	-	55.99
26	55.86	55.82	55.74	e55.75	55.83	55.91	55.91	55.85	55.90	55.97	-	55.99
27	55.85	55.81	55.74	55.75	55.82	55.91	55.90	55.84	55.90	55.96	-	55.99
28	55.86	55.82	55.72	55.74	55.83	55.91	55.89	55.85	55.89	55.95	-	55.99
29	55.85	55.83	55.74	55.76	55.84	55.91	55.88	55.85	55.89	55.96	-	55.99
30	55.83		55.73	55.77	55.83	55.92	55.89	55.84	55.91	55.97	-	55.97
31	55.85		55.72		55.83		55.87	55.84		55.95		55.99

e Estimated.

Table 16.--Daily water level in well 16.38.3.333, Tatum-Lovington-Hobbs area, Lea County, N. Mex. State of New Mexico. Test Hole No. 9. Drilled test hole water-table well in Ogallala Formation, diam 8 in, depth 107 ft. Well cased to 100 ft. Highest water level 24.44 May 29 to June 25, 1955; lowest 4622 June 4, 1960; Records available 1953-60.

Daily highest water level from recorder graph, 1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	30.54	h30.09	-	-	38.45	-	41.33	36.53	37.38	35.22	-	-
2	30.53	30.05	-	-	37.92	-	40.95	36.10	36.97	35.01	-	-
3	30.51	30.05	-	-	37.48	45.72	43.70	37.47	36.58	34.91	-	-
4	30.49	30.05	-	e40.93	37.05	46.22	43.38	36.80	36.22	34.81	-	-
5	30.48	30.04	-	39.92	36.70	45.30	42.35	36.63	36.13	34.75	-	-
6	30.47	30.04	-	38.98	36.35	44.00	41.23	40.32	38.62	34.67	-	-
7	30.45	30.02	-	38.16	-	43.13	40.35	e40.90	37.61	34.57	-	-
8	30.43	29.99	-	37.52	-	42.38	39.84	40.22	37.28	34.50	-	-
9	30.42	29.97	-	37.00	-	41.72	39.23	39.12	36.78	34.46	-	-
10	30.42	29.99	-	36.91	-	41.12	38.58	38.22	36.33	34.39	-	-
11	30.38	30.00	-	39.26	-	40.42	38.14	37.57	36.00	34.58	-	-
12	30.37	29.97	-	40.56	-	39.84	37.78	37.07	35.84	34.47	-	-
13	30.35	29.96	-	39.30	-	39.33	37.43	36.60	35.93	34.49	-	-
14	30.35	29.95	-	38.27	-	38.93	37.12	36.33	36.41	34.37	-	-
15	30.33	29.94	-	37.53	-	38.57	36.78	39.17	36.00	34.31	-	-
16	30.30	29.94	-	37.03	-	38.50	36.44	40.79	35.82	34.22	-	-
17	30.32	29.94	-	36.53	-	-	36.11	39.50	35.53	34.17	32.22	-
18	30.32	29.92	-	36.09	-	-	35.83	38.33	35.34	34.14	32.18	-
19	30.29	29.90	-	35.73	-	-	35.58	37.53	35.13	34.11	32.15	-
20	30.28	29.90	-	35.72	-	-	35.35	37.02	34.98	34.02	32.13	-
21	30.27	29.89	37.60	-	-	-	35.17	36.55	34.86	33.97	32.08	-
22	30.25	29.87	38.73	-	-	-	35.10	36.17	34.77	33.92	-	-
23	30.24	29.87	39.58	-	-	-	35.11	35.92	34.67	-	-	-
24	30.22	29.86	37.81	-	-	-	35.00	36.98	34.65	-	-	-
25	30.20	-	37.35	-	-	-	35.70	38.64	35.23	-	-	-
26	30.19	-	37.40	-	-	-	35.24	40.30	34.92	-	-	-
27	30.18	-	36.92	-	-	-	34.94	41.07	34.68	-	-	-
28	30.18	-	39.70	-	-	42.13	34.87	40.43	34.52	-	-	-
29	30.17	-	39.98	-	-	42.68	35.57	39.37	34.45	-	-	-
30	30.15		39.77	39.15	-	41.93	38.95	38.47	34.38	-	-	-
31	30.13		-		-		37.28	37.87		-		-

e Estimated.
h Tape measurement.

Table 17.--Daily water level in well 17.33.13.341, Tatum-Lovington-Hobbs area, Lea County, N. Mex.
Potash Co. of America. Drilled water-table well in Ogallala Formation, diam 6 in, depth 252 ft. Cased to 252.
Highest water level 146.00 Jan. 21, 1953; lowest 156.87 Dec. 18, 1960; Records available 1952-60.

Daily highest water level from recorder graph, 1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	155.83	155.87	155.84	156.05	156.16	156.24	156.28	156.30	156.43	156.53	156.66	156.64
2	155.86	155.74	155.89	156.16	156.09	156.22	156.22	156.33	156.46	156.55	156.73	156.56
3	155.72	155.84	155.94	156.07	156.13	156.14	156.17	156.35	156.47	156.56	156.67	156.60
4	155.74	156.00	156.00	156.09	156.12	156.11	156.23	156.36	156.47	156.51	156.74	156.72
5	155.77	155.94	156.03	156.08	156.13	156.12	156.29	156.40	156.44	156.54	156.80	156.74
6	155.77	155.93	156.06	156.02	156.18	156.20	156.30	156.41	156.45	156.52	156.74	156.81
7	155.80	155.93	155.99	156.04	156.03	-	156.29	156.41	156.47	156.43	156.59	156.73
8	155.84	155.86	155.91	156.08	156.00	-	156.30	156.38	156.47	156.42	156.72	156.71
9	155.89	155.85	155.90	156.00	156.01	-	156.35	156.38	156.49	156.47	156.82	156.68
10	155.87	156.01	155.98	155.94	156.07	-	156.36	156.45	156.39	156.46	156.63	156.69
11	155.83	156.06	155.97	156.01	156.11	-	156.38	156.34	156.38	156.37	156.66	156.84
12	155.90	155.93	155.88	155.93	156.04	-	156.38	156.37	156.38	156.44	156.66	156.83
13	155.74	155.83	155.87	156.15	156.11	156.22	156.33	156.36	156.37	156.48	156.63	156.76
14	155.87	155.86	155.86	156.06	156.21	156.24	156.30	156.36	156.36	156.54	156.61	156.71
15	155.85	155.90	155.89	156.08	156.23	156.24	156.26	156.31	156.45	156.58	156.64	156.85
16	155.76	155.84	155.93	156.14	156.22	156.30	156.24	156.32	156.49	156.57	156.64	156.78
17	155.88	155.98	155.98	156.21	156.15	156.22	156.16	156.37	156.50	156.53	156.63	156.86
18	155.92	155.90	156.02	156.05	156.19	156.21	156.23	156.42	156.52	156.63	156.68	156.87
19	155.80	155.89	156.07	156.04	156.24	156.18	156.24	156.39	156.49	156.73	156.70	156.76
20	155.85	156.04	156.08	156.14	156.17	156.15	156.24	156.44	156.46	156.64	156.80	156.84
21	155.85	155.91	156.01	156.03	156.07	156.20	156.26	156.48	156.48	156.70	156.67	156.80
22	155.88	155.94	156.02	156.09	156.10	156.19	156.29	156.44	156.46	156.70	156.74	156.81
23	155.92	155.99	155.95	156.07	156.10	156.25	156.34	156.47	156.41	156.73	156.69	156.79
24	155.91	156.00	156.04	156.03	156.12	156.27	156.36	156.45	156.50	156.67	156.69	156.72
25	155.92	155.93	156.02	156.07	156.22	156.28	156.39	156.45	156.41	156.74	156.65	156.69
26	155.92	155.94	155.99	156.00	156.21	156.31	156.35	156.43	156.44	156.66	156.60	156.69
27	155.90	155.90	155.93	156.07	156.13	156.31	-	156.35	156.40	156.68	156.48	156.67
28	155.93	155.91	155.90	156.06	156.21	156.32	-	156.38	156.34	156.63	156.70	156.76
29	155.87	155.94	156.02	156.15	156.30	156.27	-	156.41	156.40	156.66	156.59	156.74
30	155.77		155.91	156.20	156.22	156.28	-	156.38	156.49	156.69	156.58	156.66
31	155.81		155.93		156.17		-	156.39		156.57		156.76

NEW MEXICO STATE ENGINEER
SANTA FE, N. MEX.

BASIC DATA REPORT

GROUND-WATER LEVELS IN NEW MEXICO, 1961

By

W. C. Ballance
United States Geological Survey

1962

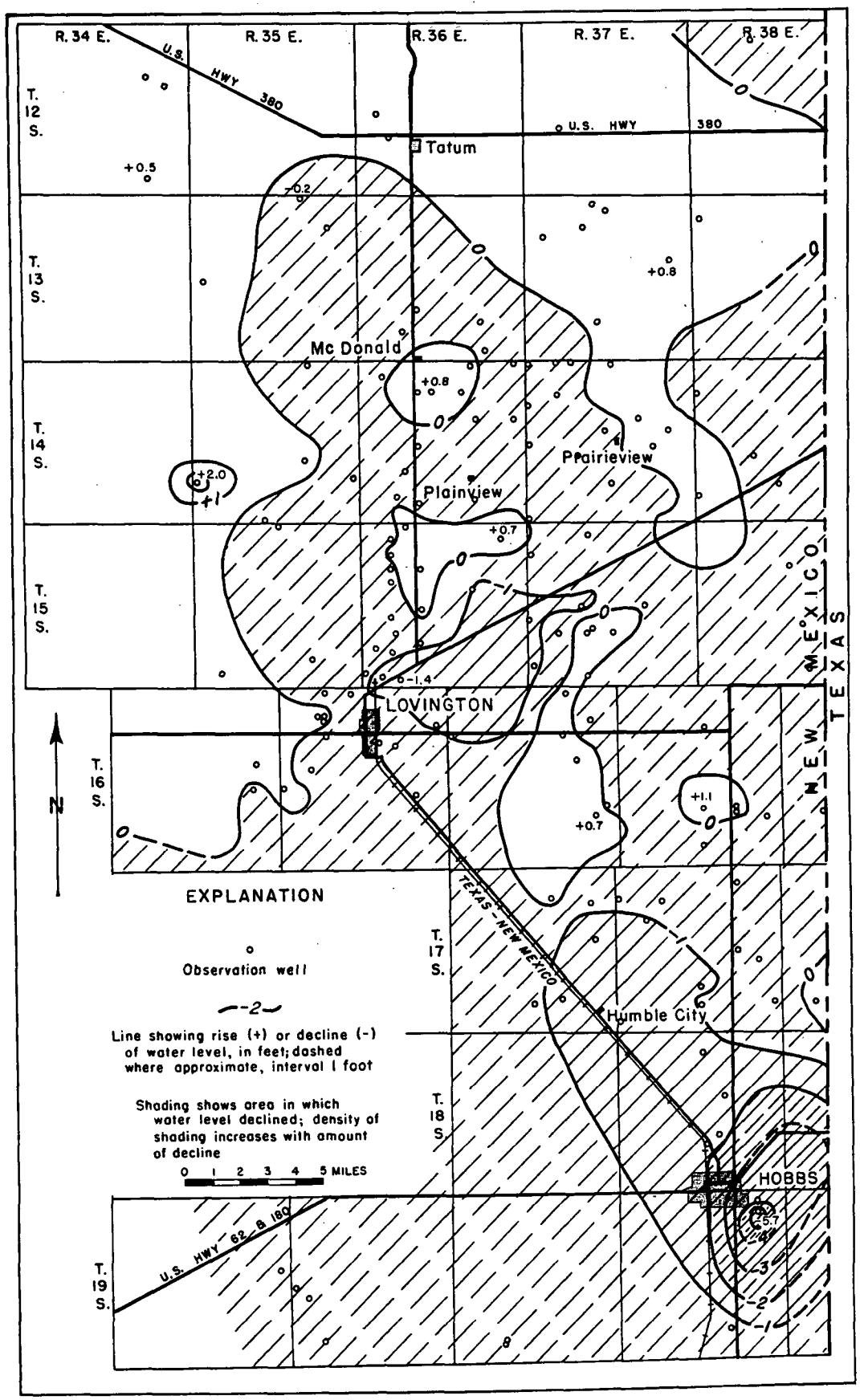


Figure 7. -- Change of ground-water level from January 1961 to January 1962 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

Table 13.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1962, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1961 TO JANUARY 1962, IN FEET

(Aquifer: AL, alluvium; CR, rocks of Cretaceous age, undivided; OG, Ogallala Formation)

Location number	Name	Aquifer	WATER LEVELS: January 1962 Level	January 1962 Day	Change 1961-62	Highest Level	Highest Year	Lowest Level	Lowest Year	RECORD: Began	Years missing
			Lea County								
11.33.25.442 *	R. W. and Nancy S. Epperson	OG	33.63	17	+0.02	33.56	57	33.88	54	54	
12.34.11.413 *	A. D. Jones Estate	OG	31.65	26	+ .14	29.78	50	31.98	58	50	
13.113	do.	OG	33.69	26	- .78	29.68	48	41.81	55	48	54,56,59,60
35.411	do.	OG	39.00	26	+ .54	35.62	49	48.77	55	48	
12.36.19.223	O. V. Fisher	OG	a330.45	26	+2.30	22.13	43	m34.31	60	39	59
24.434	J. C. Clay	OG(?)	-	-	-	+1.32	42	25.27	58	41	49,52,54,59-62
24.434a*	do.	OG	(a)	-	-	22.55	56	a25.21	60	48	61, 62
29.112 *	E. D. Holt	OG	33.92	26	+ .28	k27.69	44	34.39	60	30	55
12.37.20.343	Alvin Breckon	CR	23.01	26	+ .87	23.01	62	26.63	55	54	
12.38. 4.312	G. C. Copeland	CR	40.57	26	- .44	39.15	43	43.35	41	41	
13.32.25.214	N. R. Gross	OG	142.89	17	-	142.89	62	143.34	55	54	61
25.214a	do.	OG	143.01	17	-	142.98	59	143.33	55	54	61
13.35. 2.111a*	R. W. Duncan	OG	29.83	26	- .19	26.53	56	29.83	62	54	
11.222	A. W. Lott	OG	j43.92	26	- .41	29.14	43	47.29	55	30	32-38
19.211	Clara Elkan	OG	47.17	26	+ .28	44.75	46	49.90	58	41	51, 54
13.36. 6.413	R. W. Duncan	OG	-	-	-	44.94	48	57.25	54	48	59, 62
6.413a	do.	OG	-	-	-	49.50	61	57.49	54	53	59, 62
26.324	Mrs. Iona McClish	OG	60.95	30	- .35	42.24	49	60.95	62	49	
28.113	M. R. Anderson	OG	58.20	30	- .55	44.77	49	58.20	62	49	
32.211	R. E. Hilburn	OG	b62.40	30	-1.34	42.76	50	b62.40	62	49	56
33.321	L. V. Beaman	OG	63.53	30	.00	40.16	47	n63.53	p61	39	58
35.324	M. J. McClish	OG	(a)	30	-	53.74	52	b72.29	60	52	62
35.413	do.	OG	66.68	30	- .32	36.07	45	66.68	62	39	52
13.37. 4.242	Brady Lowe	OG	b46.01	26	-5.29	37.74	47	b46.01	62	39	59
4.422	do.	OG	36.59	26	+ .15	33.83	43	39.53	55	40	42, 48
7.234 *	W. D. Patton	OG	34.03	26	+ .50	29.57	48	34.78	60	47	
9.111	A. Breckon	OG	38.94	26	+ .65	36.33	48	39.74	50	48	
13.132 *	Bailey Brownfield	OG	34.06	26	+ .75	26.46	42	n34.81	61	30	50, 53
28.413	J. B. and J. D. Doran	OG	51.35	29	+ .14	31.70	45	51.58	60	45	
13.38. 6.341	J. W. Anderson	OG	58.89	26	+ .55	43.02	45	61.89	57	40	
14.32.14.121 *	R. T. Harris	OG	141.44	17	-	140.38	60	141.44	62	60	61
14.35. 2.112 *	Clara Elkan	OG	41.86	18	- .49	37.06	56	41.86	62	54	55
23.313	Propst and Anderson	OG	37.56	18	+ .15	37.56	62	40.61	55	54	
25.241	M. J. Wiggins	OG	49.53	18	- .33	43.30	50	51.48	56	49	
30.134	W. A. Anderson	OG	43.81	18	+2.02	43.81	62	48.93	41	39	
33.433 *	do.	OG	44.68	18	-1.17	39.65	52	44.68	62	30	
14.36. 1.211	G. T. Hanners Estate	OG	66.63	29	-1.37	33.80	48	66.63	62	48	53
2.113	Leslie Estep	OG	73.73	30	+1.00	48.44	50	75.31	60	49	
6.421	S. A. and W. B. Richardson	OG	52.76	26	- .75	39.03	44	52.76	62	40	45,54,56
9.111	Karl Clayton	OG	60.09	30	+ .54	38.36	44	n60.63	61	39	
9.211	O. M. Woodward	OG	66.18	30	+ .85	40.46	43	67.06	60	39	53
10.212	Karl Clayton	OG	70.35	30	+ .08	47.98	49	71.65	59	49	
13.211 *	Mrs. Mattie Field	OG	53.07	29	- .85	35.74	46	53.07	62	30	
14.112	do.	OG	55.66	29	-1.00	40.75	46	55.66	62	39	53
21.111	J. W. Mayo	OG	52.90	26	- .40	42.69	49	55.56	60	49	
29.211	G. T. Hanners Estate	OG	b52.19	26	- .80	44.64	51	b52.19	62	50	
32.121	E. T. Howell	OG	60.07	18	- .07	53.58	49	62.10	52	49	
33.131	Zula Bell	OG	71.25	18	- .61	56.92	50	71.25	62	49	
34.111	R. W. Boyd and Sons	OG	-	-	-	51.80	60	71.43	61	50	62
35.111	Fredia Wright	OG	62.90	15	- .65	48.36	49	64.70	60	49	51, 56
14.37.2.121	Lois C. Hobbs and Hulda Heidel	OG	(Measurement discontinued)			34.47	51	57.23	60	51	62
3.113a	do.	OG	57.99	29	+1.34	44.81	52	60.34	60	52	
5.111	S. G. Knoll	OG	66.16	29	-4.61	33.34	50	66.16	62	49	
5.211	do.	OG	55.66	29	- .99	31.76	49	55.66	62	49	
6.111	E. L. Harbison	OG	65.00	29	- .37	37.38	49	65.00	62	49	
7.311	do.	OG	62.69	29	- .19	42.82	49	62.69	62	49	53
8.113	do.	OG	58.93	29	- .43	37.93	50	58.93	62	49	
13.311	W. T. Carter	OG	68.08	26	+ .57	35.57	49	nm68.65	61	49	
14.111 *	Dean Goff and C. D. Johnson	OG	70.52	26	+ .73	36.12	49	71.25	61	49	50, 59
16.421	C. A. Fort	OG	55.16	29	-1.59	28.86	43	55.16	62	39	
19.111	A. B. Hennington	OG	55.68	29	- .13	41.15	50	55.68	62	49	
20.412	G. O. Durham	OG	60.81	29	- .87	33.30	45	60.81	62	40	
23.213	Lee Whitman	OG	65.59	29	+ .74	33.90	47	66.71	60	46	
27.311	J. R. Fort Estate	OG	59.35	29	- .93	35.13	48	59.35	62	48	
31.333 *	Amanda Miller	OG	60.02	15	- .05	44.80	50	60.10	60	50	
14.38. 7.113	F. L. Heidel and G. D. Taylor	OG	62.68	29	- .69	40.73	50	62.68	62	50	
21.311 *	Ida M. Cox	OG	48.15	19	- .14	32.48	49	48.15	62	49	
27.313	Guy Cave	OG	52.68	19	- .25	38.30	51	57.92	60	51	54

See footnotes at end of table.

Table 13.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, IN JANUARY 1962 - Continued

Location number	Name	Aquifer	WATER LEVELS							RECORD	
			January 1962		Change	Highest		Lowest		Began	Years
			Level	Day	1961-62	Level	Year	Level	Year		missing
14.38.31.111	W. J. and D. C. Aldridge	OG	47.14	19	+ .21	37.45	50	48.16	60	49	
15.33.14.100	J. Etchaverry	OG	a103.45	15	-1.09	a101.70	58	a103.55	57	54	55
15.35. 3.111	J. F. Watson	OG	42.36	18	- .13	37.30	52	48.08	56	52	
31.422	Joe Price	OG	55.90	18	+ .29	54.14	51	56.82	57	49	54, 59
35.112	E. L. Anderson	OG	49.68	18	-1.18	39.60	43	50.89	60	40	59
15.36. 1.311	J. W. Scott	OG	59.45	15	+ .77	43.60	49	60.81	60	49	
5.211	J. P. Caudill	OG	67.94	15	+ .23	52.73	51	68.56	60	50	
5.311	do.	OG	57.96	22	- .06	40.02	49	58.08	60	49	
8.111a *	Mamie Beaty	OG	59.72	22	+ .08	43.37	50	61.06	60	50	51, 53
8.311	Walter Adams and B. E. Belew	OG	60.80	22	- .07	40.13	48	61.86	60	48	
9.311	J. L. Kidd	OG	68.67	15	+ .57	44.30	49	69.80	60	49	
14.131	Mrs. F. O. Graham	OG	53.88	15	-1.05	42.38	45	53.88	62	41	46-51, 54
17.111	B. F. and Walter Adams	OG	60.35	22	- .14	44.47	50	61.58	60	49	
20.133	E. B. Parsons	OG	62.57	22	- .32	45.25	49	62.57	62	49	
21.111	U. S. Alexander	OG	62.70	15	+ .09	42.55	49	n62.79	61	49	
28.133	J. R. and Boss Hale	OG	65.75	15	- .32	44.53	47	67.02	60	47	57
29.112	G. A. Fisher	OG	63.75	22	- .38	44.90	48	63.96	60	48	
29.331	C. E. Alexander	OG	62.68	22	- .95	47.46	51	62.68	62	49	
29.410a	do.	OG	(Measurement discontinued)			47.72	50	63.71	60	50	51, 59, 62
30.411	Phyllis Williams	OG	58.74	22	- .92	46.14	51	58.83	60	49	
31.311	O. A. Payton	OG	60.58	18	- .55	47.35	48	60.58	62	48	59
31.423	Mrs. H. J. Burns	OG	66.87	22	-1.52	51.05	49	66.87	62	49	52
32.323	Hobdy Gann	OG	68.42	18	- .59	53.60	49	68.42	62	49	
33.211	B. J. Harkrider	OG	67.11	19	-1.43	49.14	47	72.54	54	47	57
34.111	do.	OG	58.95	19	-1.72	44.12	48	60.19	54	48	59
15.37. 4.113	W. Anderson	OG	54.74	19	- .24	37.10	50	54.74	62	50	
7.111	D. H. Crockett	OG	60.20	19	- .27	46.13	50	60.58	60	50	
19.311	Otto Dean	OG	50.94	19	-1.24	41.09	50	50.94	62	48	51, 53
20.221	J. E. Steele	OG	54.54	19	-1.17	35.30	50	55.08	60	49	
21.334 *	R. W. Dean	OG	a56.71	19	+ .66	29.20	45	a57.37	61	31	49,57-60
23.112	Nellie Fort	OG	42.01	19	- .32	35.59	51	42.41	60	51	
27.111	C. E. Renshaw	OG	j51.12	19	- .80	29.38	43	51.73	60	42	45
28.111	E. T. Wilks	OG	52.91	19	- .30	30.27	50	53.83	60	50	
29.111	do.	OG	57.31	19	-1.09	39.08	51	57.31	62	51	
31.132	W. R. Dean	OG	52.06	19	-1.15	35.04	50	52.06	62	49	
33.313	E. B. Yarbro	OG	61.86	22	- .29	35.97	50	61.86	62	50	
34.133	O. S. Bigham	OG	m52.09	22	-2.71	30.64	50	49.54	60	49	
15.38.10.321	Brady Lowe	OG	35.47	19	- .21	31.84	51	39.75	60	51	
22.441	T. C. Fort	OG	35.74	30	-1.57	28.72	42	37.23	60	40	54
35.133	J. W. Waits	OG	45.39	30	- .64	37.61	50	45.68	60	50	59
16.32.20.311 *	Taylor and Holeman	OG	256.72	17	+ .46	256.72	62	257.46	60	60	
16.35.13.112 *	C. E. Hilburn	OG	52.17	18	+ .16	43.38	49	52.33	61	49	
24.111	T. G. Hester	OG	52.49	18	- .04	44.09	51	53.30	60	51	
26.211	Homer Youngblood	OG	40.33	18	.00	35.37	49	41.95	55	49	
16.36. 1.431	Mrs. John Easley	OG	55.02	22	-1.03	39.65	45	55.02	62	39	58
4.Lot 2	C. D. Gore	OG	64.40	8	- .57	46.59	47	64.40	62	47	
5.Lot 2*	Miss Ethel Yadon	OG	56.33	8	- .38	53.96	57	56.33	62	57	
5.Lot 10	T. W. Phillips	OG	(Measurement discontinued)			44.53	42	n59.80	61	40	48, 62
5.Lot 14	H. E. and L. F. Carr	OG	60.93	17	+ .11	45.23	42	61.12	58	39	
5.Lot 15	I. D. Phillips	OG	60.74	17	+ .05	50.09	48	n60.79	61	48	
5.321	Floyd Greer	OG	(Measurement discontinued)			44.81	42	61.53	58	39	59, 62
5.411	do.	OG	63.95	17	+ .04	45.72	42	n63.99	61	39	
8.211	H. W. Gillette	OG	66.54	17	- .38	53.67	48	66.54	62	48	
10.233	City of Lovington	OG	76.66	15	- .23	50.22	42	76.66	62	40	
11.133	C. G. Rudgens	OG	m77.14	15	- .97	50.71	48	76.48	60	48	
11.232	Lovington Country Club	OG	(a)	15	-	53.97	48	bn70.22	61	48	54,55,57,62
17.133	B. L. Hobbs	OG	63.92	18	-1.09	53.15	49	63.92	62	49	
19.111	J. E. Witherspoon	OG	56.94	18	-	46.58	49	56.94	62	49	61
23.240	H. T. Monteith	OG	50.94	23	- .55	46.68	55	51.11	60	54	59
16.37. 1.311	H. W. Wilks	OG	63.41	22	-2.09	34.99	50	63.41	62	50	
2.Lot 4	Ugi Harada	OG	63.60	22	+ .80	38.33	50	64.82	60	50	
7.114	Beal Gleason	OG	47.03	22	-1.02	38.32	50	47.26	58	50	
11.111 *	H. J. Taylor	OG	64.30	22	+ .39	31.93	49	64.69	61	49	51
14.211	W. H. Green	OG	59.58	22	+1.14	39.73	50	61.76	60	50	
24.431a	Bert Dority	OG	51.23	23	- .29	45.01	53	51.31	60	53	
25.111	R. L. Davis	OG	49.87	23	+ .67	36.87	50	50.76	60	50	
16.38. 3.333 *	State of New Mexico	OG	31.65	8	- .90	24.60	56	31.65	62	54	
25.144	R. C. Eaves	OG	46.53	23	- .71	31.90	42	46.53	62	41	
26.111	Woody's Acres, Inc.	OG	53.75	23	+ .22	35.34	50	53.97	61	50	51,54
26.113	do.	OG	55.18	23	+ .19	51.77	54	55.90	55	54	
27.111	do.	OG	60.22	23	+1.12	32.89	50	61.34	61	50	
30.211	Lee Mitchell	OG	b46.40	23	- .15	36.82	51	47.25	59	51	
34.131a *	Woody's Acres, Inc.	OG	65.74	23	-1.05	63.47	59	65.74	62	59	
16.39.20.131	George Bradford	OG	53.44	23	- .49	32.47	48	53.44	62	48	

See footnotes at end of table.

Table 13.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, IN JANUARY 1962 - Continued

Location number	Name	Aquifer	WATER LEVELS							RECORD	
			January 1962		Change	Highest		Lowest		Began	Years missing
			Level	Day	1961-62	Level	Year	Level	Year		
16.39.29.Lot 2	L. E. Sims and L. J. Holder	OG	67.58	23	-0.28	54.85	50	67.58	62	50	59
17.33.13.341 *	Potash Co. of America	OG	157.64	16	- .73	146.39	53	157.64	62	53	
13.434	do.	OG	(a)	16	-	c144.24	49	175.54	61	49	54,57-60, 62
25.244	Southwest Potash Co.	OG	(a)	16	-	b142.67	58	145.09	60	58	59,61,62
17.34.21.143	Duval Sulphur Potash Co.	OG	(a)	16	-	112.71	51	125.80	61	51	52,58-60, 62
35.130 *	State of New Mexico	OG	90.55	16	- .46	89.88	53	91.98	41	41	59
17.35.35.213 *	do.	OG	38.71	16	- .46	37.94	59	41.45	41	41	
17.36. 3.333 *	U. S. Government	OG	42.54	16	- .14	42.02	44	44.29	41	39	
27.131 *	Dorothy Scharbauer	OG	34.95	16	- .18	33.05	49	35.73	60	48	
17.37.10.211	S. M. Reiland	OG	43.87	23	+ .09	32.87	49	45.99	58	49	
12.113	Lee Stiles Estate	OG	56.76	23	- .73	40.69	50	56.76	62	50	
13.312	W. V. Lawrence	OG	44.88	23	-2.29	26.05	44	44.88	62	39	
26.333	Tim Woods	OG	42.16	24	-1.46	26.21	43	42.16	62	38	
34.111	C. G. Goodwin	OG	44.13	24	- .68	42.13	57	44.30	60	57	
17.38. 2.311	W. V. Lawrence	OG	53.78	23	- .93	43.65	51	53.78	62	49	
7.111a *	L. R. Sebings	OG	c49.21	23	- .80	35.94	52	c49.21	62	52	
8.211	J. J. Handley, Jr.	OG	54.88	23	- .18	36.46	50	55.03	60	50	58
8.331	G. W. Brown and L. E. Walker	OG	b47.24	23	-1.17	32.88	51	46.65	60	51	
23.111	W. V. Lawrence	OG	42.16	23	- .39	36.01	49	42.44	60	49	
24.133	do.	OG	45.90	23	- .71	41.30	50	45.90	62	50	59
27.133	W. E. Manning	OG	b33.92	23	-1.23	25.55	47	b33.92	62	46	
31.311	G. L. Beene	OG	40.11	24	-1.11	26.71	49	41.07	60	49	
34.113 *	W. E. Busby	OG	33.62	24	- .88	24.78	44	33.62	62	44	
36.212	King Acres	OG	68.37	23	- .05	59.60	50	72.19	54	50	
17.39.32.111	do.	OG	79.56	23	+ .01	72.92	50	n79.57	61	50	
18.35.17.144 *	International Minerals Chemical Corp.	OG	70.86	16	- .57	69.49	56	70.86	62	54	
20.144	do.	OG	75.86	16	- .16	75.70	61	75.86	62	54	59
20.214	do.	OG	72.26	16	- .10	72.16	61	72.27	58	54	59
18.36.27.111 *	State of New Mexico	OG	40.45	16	- .15	38.13	43	42.30	59	39	
18.38. 3.313	George Mooney	OG	38.82	24	-1.08	29.68	52	38.82	62	52	
15.241 *	Ben Randolph	OG	41.25	24	-1.87	26.77	43	41.25	62	40	
19.413	Carl Dennison	OG	(Measurement discontinued)			24.37	49	30.55	54	49	50,52,59-62
22.433	Catholic Church	OG	58.78	24	-1.70	41.23	49	58.78	62	49	
27.113 *	City of Hobbs	OG	49.87	24	-1.70	44.00	55	49.87	62	55	
30.214	Lavern McCombs	OG	30.50	24	-	-	-	-	-	62	
30.223 *	J. T. Montgomery, Jr.	OG	(Measurement discontinued)			23.19	48	29.70	60	31	62
19.35.13.412	B. E. Hughes	AL	21.43	16	- .68	18.08	50	j21.63	60	50	
19.36.19.113	W. M. Evans	AL	16.50	16	- .48	15.06	47	17.93	41	39	
19.411	F. K. Turner	AL	16.19	16	- .12	16.07	61	16.59	49	42	
32.111	do.	AL	16.87	16	- .44	15.15	42	18.60	40	39	
19.37. 1.231	Hobbs Country Club	OG	-	-	-	24.75	47	29.91	57	45	53,56,59, 62
32.241 *	O. I. Boyd	AL	12.23	16	- .19	11.50	33	12.34	49	30	
32.241a	do.	AL	12.28	16	- .23	12.03	59	a12.82	54	48	57
19.38. 2.242	S. J. Purvis	OG	45.23	24	-3.22	42.01	61	52.04	53	41	
2.424	J. R. Glenn	OG	35.01	24	-5.68	29.33	61	46.54	41	41	42,48
34.222	J. O. Coursey	OG	50.56	24	- .84	42.27	49	50.56	62	49	60
20.35. 1.221a *	H. S. Record	AL	a25.32	16	.00	a25.32	p61	a26.21	59	59	
20.37. 9.110 *	W. H. Laughlin	AL	29.69	16	- .40	27.18	43	42.40	38	30	36,37
20.39.18.344	Earl Kornegay	OG	c44.01	24	+ .09	c44.01	62	46.08	54	54	
			Chaves County								
12.31.23.333 *	F. E. Dickson	OG	129.20	17	+ .14	129.20	62	130.37	55	54	
26.333	do.	OG	131.35	17	+ .15	131.35	62	132.29	56	54	
26.333a	do.	OG	130.15	17	+ .08	130.15	62	130.69	56	54	
15.31.23.311		OG	250.87	17	-	244.97	54	250.87	62	54	61

* Additional measurements and other data for this well are listed in following tabulation of seasonal measurements or daily records of water level.

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder graph.
m. Measurement uncertain.
n. February.
p. Also 1962.

Table 14.--SEASONAL WATER LEVELS IN WELLS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN 1961, AND HIGHEST AND LOWEST RECORDED LEVELS, IN FEET BELOW LAND-SURFACE DATUM

Location	11.33.25.442		12.31.23.333		12.34.11.413		12.36.24.434a		12.36.29.112	
Name	R. W. and Nancy S. Epperson		F. E. Dickson		A. D. Jones Estate		J. C. Clay		E. D. Holt	
Record	1953-61		1953-61		1949-61		1947-60		1929-61	
Highest	May 1956	33.55	Sept. 1960	129.05	May 1949	29.57	Jan. 1956	22.55	Aug. 1943	k27.63
Lowest	Sept. 1959	34.36	Jan., Mar. 1955	130.37	Sept. 1955	32.13	Mar. 1959	25.87	June 1960	34.59
1961	Feb. 13	33.65	Jan. 17	129.34	Feb. 13	31.79	Measurement		Feb. 8	34.20
Levels	Apr. 3	33.65	Apr. 3	129.33	Apr. 3	31.78	discontinued		Apr. 3	34.15
	June 28	33.68	June 28	129.27	June 28	31.74			June 28	34.13
	Sept. 12	33.66	Sept. 12	129.04	Sept. 12	31.71			Sept. 12	34.05

Location	13.35.2.111a		13.37.7.234		13.37.13.132		14.32.14.121		14.35.2.112	
Name	R. W. Duncan		W. D. Patton		Bailey Brownfield		R. T. Harris		Clara Elkan	
Record	1953-61		1945-61		1930-61		1959-60		1960-61	
Highest	Nov. 1955	26.43	Mar., Nov. 1947	29.56	Aug. 1941	25.46	Dec. 1959	140.16	Jan. 1960	40.64
Lowest	Sept. 1961	29.79	Sept. 1960	34.97	June 1961	35.01	Jan. 1960	140.38	Sept. 1961	41.66
1961	Feb. 8	29.64	Feb. 8	34.53	Feb. 8	34.81	No measurements in		Feb. 7	41.37
Levels	Mar. 27	29.67	Mar. 27	34.44	Mar. 27	34.95	1961		Mar. 27	41.47
	June 28	29.73	June 28	34.46	June 28	35.01			June 2	41.60
	Sept. 12	29.79	Sept. 12	34.24	Sept. 12	32.67			Sept. 12	41.66

Location	14.35.33.433		14.36.13.211		14.37.14.111		14.37.31.333		14.38.21.311	
Name	W. A. Anderson		Mrs. Mattie Field		Dean Goff and C. D. Johnson		Amanda Miller		Ida M. Cox	
Record	1929-61		1929-61		1948-61		1949-61		1949-61	
Highest	May, July 1951, Jan. May 1952	39.65	Jan., May 1946	35.74	Jan. 1949	36.12	Mar. 1949	43.59	Jan. 1949	32.48
Lowest	Nov. 1956	44.42	Sept. 1961	52.65	Sept. 1959	86.79	Sept. 1953	71.96	Sept. 1956	53.21
1961	Feb. 9	43.51	Feb. 6	52.22	Feb. 6	71.25	Jan. 16	59.97	Feb. 6	48.01
Levels	Mar. 28	43.36	Mar. 27	52.29	Mar. 27	70.62	Mar. 27	59.18	Mar. 23	47.75
	June 2	43.16	June 2	52.40	June 5	71.56	June 5	60.83	June 5	51.41
	Sept. 6	c43.04	Sept. 13	52.65			Sept. 12	64.11	Sept. 13	50.63

Location	15.36.8.111a		15.37.21.334		16.32.20.311		16.35.13.112		16.36.5.Lot 2
Name	Mamie Beatty		R. W. Dean		Taylor and Holeman		C. E. Hilburn		Miss Ethel Yadon
Record	1949-61		1930-61		1959-61		1948-61		
Highest	Mar. 1949	41.33	July 1943	29.10	Sept. 1960	257.17	Mar. 1948	c42.36	
Lowest	Sept. 1958	71.49	Sept. 1958	62.66	Oct. 1959	257.50	Sept. 1957	56.16	
1961	Feb. 2	59.80	Jan. 20	a57.37	Jan. 13	257.18	Jan. 16	52.33	See table 15
Levels	Mar. 23	59.27	June 30	a58.64	Apr. 3	257.09	Mar. 23	51.86	
	June 2	59.99	Sept. 13	a61.45	July 6	256.92	June 1	51.54	
	Sept. 6	66.74			Sept. 12	256.87	Sept. 6	55.33	

Location	16.37.11.111		16.38.3.333		16.38.34.131a		17.33.13.341		17.34.35.130	
Name	H. J. Taylor		State of New Mexico		Woody's Acres Inc.		Potash Co. of America		State of New Mexico	
Record	1949-61				1952, 1958-61				1940-61	
Highest	Jan. 1949	31.93			July 1952	45.45			July 1953	89.81
Lowest	Sept. 1960	73.88			Sept. 1958	71.53			Jan. 1941	91.98
1961	Jan. 19	64.69	See table 16		Jan. 20	64.69	See table 17		Jan. 17	90.09
Levels	Mar. 23	62.40			June 6	64.53			Mar. 27	90.02
	June 1	69.09			Sept. 8	70.94			June 1	90.13
	Sept. 8	b75.79							Sept. 6	90.29

Location	17.35.35.213		17.36.3.333		17.36.27.131		17.38.7.111a		17.38.34.113	
Name	State of New Mexico		U.S. Government		Dorothy Scarbauer		L. R. Sebings		W. E. Busby	
Record	1940-61		1939-61		1947-61		1951-61		1943-61	
Highest	Jan. 1959	37.94	Mar., May 1944	42.00	Sept. 1949	33.00	Mar. 1952	35.59	Jan. 1944	24.78
Lowest	Jan. 1941	41.45	June 1939	45.01	May 1950	36.52	Sept. 1960	53.47	Sept. 1961	33.23
1961	Jan. 17	38.25	Jan. 17	42.40	Jan. 17	34.77	Jan. 20	48.41	Feb. 3	32.74
Levels	Mar. 27	38.29	Mar. 28	42.37	Mar. 28	34.79	June 6	48.78	Mar. 24	32.87
	June 1	38.46	June 1	42.41	June 1	34.77	Sept. 8	51.04	June 6	33.04
	Sept. 6	38.39	Sept. 6	42.43	Sept. 6	34.85			Sept. 8	33.23

Location	18.35.17.144		18.36.27.111		18.38.15.241		18.38.27.113		18.38.30.223	
Name	International Minerals Chemical Corp.		State of New Mexico		Ben Randolph		City of Hobbs		J. T. Montgomery	
Record	1953-61		1939-61		1940-61		1954-61		1931-61	
Highest	Sept. 1954	69.41	Oct. 1942	38.09	Nov. 1942	26.65	Mar. 1954	42.94	Nov. 1947	23.01
Lowest	Sept. 1961	70.52	Mar. 1960	43.09	Sept. 1961	43.56	July 1954	60.83	June 1960	30.64
1961	Jan. 17	70.29	Jan. 18	40.30	Feb. 3	39.38	Jan. 18	48.17	Feb. 3	29.47
Levels	Mar. 27	70.29	Mar. 28	40.42	Mar. 24	39.56	Mar. 24	47.97	Mar. 24	m29.53
	June 1	70.44	June 27	40.47	June 6	42.01	June 6	48.62	June 6	30.44
	Sept. 11	70.52	Sept. 11	40.28	Sept. 8	43.56	Sept. 8	49.15	Measurement discontinued	

Location	19.37.32.241		20.35.1.221a		20.37.9.110	
Name	O. I. Boyd		H. S. Record		W. H. Laughlin	
Record	1929-61		1957-61		1929-61	
Highest	Nov. 1941	10.12	Sept. 1960	24.97	Mar. 1943	26.89
Lowest	June 1934	13.89	Sept. 1957	26.08	Aug. 1935	47.54
1961	Jan. 18	12.04	Jan. 18	b25.32	Jan. 18	29.29
Levels	Mar. 28	12.05	Mar. 28	a25.40	Mar. 28	28.89
	June 27	12.19	June 27	25.39	June 27	28.91
	Sept. 11	12.25	Sept. 11	a25.21	Sept. 11	29.68

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
k. From recorder graph.
m. Measurement uncertain.

Table 15.--Daily water level in well 16.36.5.Lot 2, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Miss Ethel Yadon. Drilled unused water-table well in Ogallala Formation, diam. 16 in., depth 97 ft. Highest water level 53.83 Mar. 14, 1957; lowest 56.33 Dec. 30, 31, 1961; records available 1956-61.

Daily highest water level from recorder graph, 1961.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	55.98	55.90	55.81	55.74	55.66	55.63	55.71	55.83	56.01	56.11	56.19	56.29
2	55.99	55.90	55.80	55.73	55.65	55.62	55.73	55.84	56.01	56.11	56.20	56.28
3	55.99	55.89	55.79	55.73	55.65	55.63	55.74	55.84	56.03	56.11	56.20	56.28
4	55.97	55.90	55.80	55.72	55.65	55.63	55.74	55.85	56.02	56.11	56.21	56.29
5	55.97	55.90	55.80	55.74	55.65	55.64	55.75	55.85	56.02	56.11	56.22	56.30
6	55.97	55.89	55.80	55.71	55.65	55.64	55.75	55.85	56.03	56.12	56.22	56.31
7	55.98	55.88	55.81	55.69	55.63	55.63	55.75	55.85	56.04	56.14	56.22	56.30
8	55.97	55.89	55.81	55.70	55.65	55.63	55.75	55.87	56.05	56.15	56.22	56.29
9	55.96	55.89	55.80	55.71	55.65	55.64	55.77	55.87	56.05	56.15	56.22	56.31
10	55.95	55.88	55.79	55.69	55.64	55.65	55.77	55.87	56.05	56.16	56.23	56.31
11	55.96	55.87	55.79	55.71	55.63	55.65	55.75	55.88	56.05	56.16	56.23	56.31
12	55.95	55.87	55.79	55.69	55.63	55.65	55.76	55.88	56.06	56.16	56.25	56.31
13	55.95	55.87	55.79	55.67	55.64	55.65	55.78	55.88	56.07	56.17	56.26	56.30
14	55.95	55.87	55.79	55.69	55.64	55.65	55.78	55.89	56.07	56.17	56.25	56.31
15	55.95	55.87	55.76	55.70	55.63	55.67	55.79	55.91	56.07	56.17	56.26	56.31
16	55.95	55.85	55.76	55.69	55.63	55.68	55.78	55.91	56.07	56.17	56.27	56.31
17	55.95	55.85	55.76	55.69	55.64	55.68	55.79	55.92	56.08	56.17	56.27	56.31
18	55.93	55.85	55.77	55.69	55.64	55.67	55.79	55.93	56.07	56.18	56.27	56.32
19	55.93	55.85	55.78	55.68	55.63	55.68	55.79	55.94	56.07	56.18	56.27	56.32
20	55.93	55.85	55.77	55.68	55.63	55.69	55.79	55.95	56.08	56.16	56.26	56.31
21	55.92	55.85	55.77	55.68	55.63	55.69	55.79	55.95	56.09	56.16	56.26	56.31
22	55.91	55.82	55.77	55.67	55.64	55.69	55.81	55.96	56.09	56.16	56.26	56.32
23	55.92	55.83	55.74	55.66	55.64	55.69	55.80	55.97	56.09	56.17	56.27	56.32
24	55.92	55.84	55.73	55.67	55.63	55.69	55.81	55.97	56.10	56.17	56.27	56.31
25	55.91	55.82	55.73	55.67	55.64	55.70	55.81	55.98	56.09	56.18	56.27	56.31
26	55.92	55.81	55.74	55.67	55.65	55.69	55.81	55.99	56.09	56.17	56.27	56.32
27	55.92	55.83	55.72	55.67	55.64	55.70	55.81	55.99	56.10	56.17	56.27	56.32
28	55.92	55.81	55.73	55.67	55.65	55.71	55.81	55.99	56.09	56.17	56.27	56.32
29	55.92		55.73	55.65	55.64	55.71	55.81	56.00	56.10	56.19	56.27	56.31
30	55.91		55.73	55.66	55.63	55.71	55.80	56.00	56.11	56.19	56.28	56.33
31	55.91		55.74		55.64		55.83	56.00		56.19		56.33

Table 16.--Daily water level in well 16.38.3.333, Tatum-Lovington-Hobbs area, Lea County, N. Mex. State of New Mexico. Test Hole No. 9. Drilled test hole water-table well in Ogallala Formation, diam. 8 in., depth 107 ft. Well cased to 100 ft. Highest water level 24.44 May 29 to June 25, 1960; lowest 46.22 June 4, 1960; records available 1953-61.

Daily highest water level from recorder graph, 1961.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-	-	30.18	32.12	35.62	35.67	-	35.85	34.69	33.92	33.42	32.42
2	-	-	-	31.97	-	e35.18	42.42	35.73	34.65	34.63	33.39	32.38
3	-	-	30.13	31.82	-	-	41.43	-	35.33	34.88	33.33	32.36
4	-	-	30.13	31.73	-	-	40.59	-	34.97	34.57	33.28	32.35
5	-	-	30.12	31.93	-	-	40.38	-	34.83	34.35	33.26	32.32
6	-	-	30.11	33.04	-	-	41.35	-	35.38	34.22	33.22	32.30
7	-	-	30.11	32.94	-	-	41.90	-	36.18	34.10	33.15	32.25
8	-	-	30.12	32.67	-	-	40.77	36.25	36.13	34.02	33.09	32.23
9	-	h30.45	30.08	32.45	-	-	39.93	35.94	35.69	33.95	33.05	32.20
10	-	30.43	30.07	32.30	-	-	39.12	35.85	35.37	33.90	33.02	32.19
11	-	30.41	31.17	32.21	-	-	38.61	-	35.12	33.82	32.97	32.17
12	-	30.39	31.03	32.06	35.73	-	38.17	-	35.06	33.78	32.95	32.17
13	-	30.38	30.97	31.96	35.17	-	37.80	36.15	35.83	33.75	32.92	-
14	-	30.37	31.54	31.94	34.77	-	37.45	36.04	35.47	33.69	32.87	-
15	-	30.37	31.33	32.87	34.46	-	37.13	36.21	35.16	33.63	32.84	-
16	h30.75	30.33	31.28	33.23	34.38	-	36.85	36.03	34.98	33.57	32.83	-
17	30.73	30.32	32.11	33.09	38.22	-	36.55	-	34.83	33.52	32.77	-
18	30.70	30.31	32.04	33.23	38.62	-	36.28	-	34.68	33.50	32.75	-
19	30.70	30.31	31.86	-	38.25	-	36.03	-	34.60	33.44	32.71	-
20	30.70	30.31	31.68	33.72	37.78	-	35.98	36.10	34.52	33.40	32.68	-
21	-	30.28	31.60	33.61	36.83	-	-	35.80	34.45	33.37	32.65	-
22	-	30.25	31.49	33.68	36.20	-	36.45	35.57	34.38	33.32	32.63	-
23	-	30.24	31.43	33.67	35.66	-	36.07	35.38	34.32	33.28	32.62	-
24	-	30.27	31.47	33.63	35.59	-	35.83	35.22	34.27	33.25	32.58	-
25	-	30.22	31.90	33.50	36.18	-	35.62	35.15	34.19	33.24	32.56	-
26	-	30.23	31.72	33.28	35.58	-	35.57	35.93	34.14	33.23	32.53	-
27	-	30.22	31.57	33.07	35.17	-	-	35.54	34.10	33.99	32.52	-
28	-	30.19	31.54	32.72	35.12	-	-	35.28	34.02	33.92	32.48	-
29	-		32.03	32.93	-	-	-	35.09	33.97	33.78	32.47	-
30	-		31.90	34.90	36.35	-	-	34.92	33.93	33.66	32.43	-
31	-		32.32		36.10		36.17	34.80		33.53		-

e. Estimated.

h. Tape measurement.

Table 17--Daily water level in well 17.33.13.341, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Potash Co. of America. Drilled water-table well in Ogallala Formation, diam. 6 in., depth 252 ft. Cased to 252. Highest water level 146.00 Jan. 21, 1953; lowest 157.50 Dec. 31, 1961; records available 1952-61.

Daily highest water level from recorder graph, 1961.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	156.81	156.77	156.70	-	156.74	156.94	157.00	157.11	157.22	157.22	157.14	157.34
2	156.83	156.71	156.63	-	156.65	156.93	157.07	157.11	157.18	157.28	157.19	157.32
3	156.88	156.69	156.65	156.67	156.69	156.97	157.05	157.12	e157.21	157.25	157.29	157.37
4	156.73	156.72	156.69	156.58	156.78	156.98	157.02	157.06	157.18	157.28	157.34	157.44
5	156.80	156.69	156.68	156.67	156.84	156.99	157.00	157.10	157.14	157.31	157.49	157.32
6	156.76	156.61	156.63	156.71	156.79	157.00	157.00	157.10	157.16	157.32	157.35	157.38
7	156.80	156.64	156.71	156.62	156.78	156.96	157.00	157.12	157.20	157.31	157.38	157.31
8	156.70	156.70	156.71	156.67	156.96	156.94	156.96	157.17	157.25	157.39	157.32	157.21
9	156.63	156.72	156.61	156.80	156.80	156.95	156.98	157.18	157.26	157.34	157.26	157.34
10	156.63	156.70	156.62	156.71	156.78	156.97	156.89	157.20	157.27	157.40	157.31	157.25
11	156.73	156.73	156.75	156.83	156.78	156.90	156.91	157.20	157.23	157.34	157.25	157.20
12	156.65	156.78	156.80	156.72	156.82	156.90	157.00	157.19	157.22	157.33	157.29	157.31
13	156.66	156.80	156.78	156.65	156.86	156.95	156.99	157.19	157.27	157.40	157.31	157.23
14	156.76	156.78	156.75	156.75	156.90	156.98	157.03	157.19	157.27	157.31	157.20	157.32
15	156.85	156.79	156.71	156.72	156.88	157.03	157.11	157.20	157.24	157.21	157.18	157.29
16	156.83	156.66	156.74	156.69	156.90	157.02	157.10	157.19	157.18	157.20	157.31	157.30
17	156.33	156.71	156.74	156.70	156.98	157.02	157.09	157.20	157.13	157.22	157.20	157.37
18	156.74	156.71	156.75	156.70	156.96	157.02	157.05	157.19	157.09	157.29	157.34	157.41
19	156.72	156.69	156.75	156.68	156.96	157.02	157.04	157.19	157.11	157.28	157.33	157.45
20	156.72	156.66	156.59	156.76	156.95	157.05	157.04	157.12	157.16	157.30	157.34	157.37
21	156.61	156.64	156.65	156.78	156.98	157.01	157.04	157.08	157.21	157.33	157.31	157.33
22	156.63	156.56	156.71	156.79	156.99	157.03	157.04	157.17	157.25	157.35	157.34	157.37
23	156.64	156.70	156.67	156.79	156.98	156.98	156.98	157.15	157.25	157.34	157.40	157.34
24	156.66	156.76	156.71	156.84	156.97	156.89	157.00	157.15	157.31	157.37	157.35	157.24
25	156.56	156.65	156.80	156.80	157.00	156.93	157.05	157.20	157.21	157.45	157.34	157.21
26	156.69	156.71	156.82	156.85	156.98	156.88	157.05	157.24	157.26	157.25	157.28	157.28
27	156.72	156.83	h156.74	156.83	156.91	156.89	157.04	157.27	157.33	157.21	157.28	157.28
28	156.77	156.77	156.80	156.79	156.92	156.95	157.08	157.27	157.21	157.19	157.22	157.30
29	156.82		156.79	156.68	156.90	156.97	157.11	157.23	157.19	157.29	157.24	157.31
30	156.82		156.71	156.67	156.87	156.98	157.13	157.21	157.32	157.29	157.25	157.36
31	156.78		156.81		156.92		157.12	157.22		157.22		157.50

e. Estimated.
h. Tape measurement.

NEW MEXICO STATE ENGINEER
SANTA FE, N. MEX.

BASIC DATA REPORT

GROUND-WATER LEVELS IN NEW MEXICO, 1962

By

W. C. Ballance
United States Geological Survey

1963

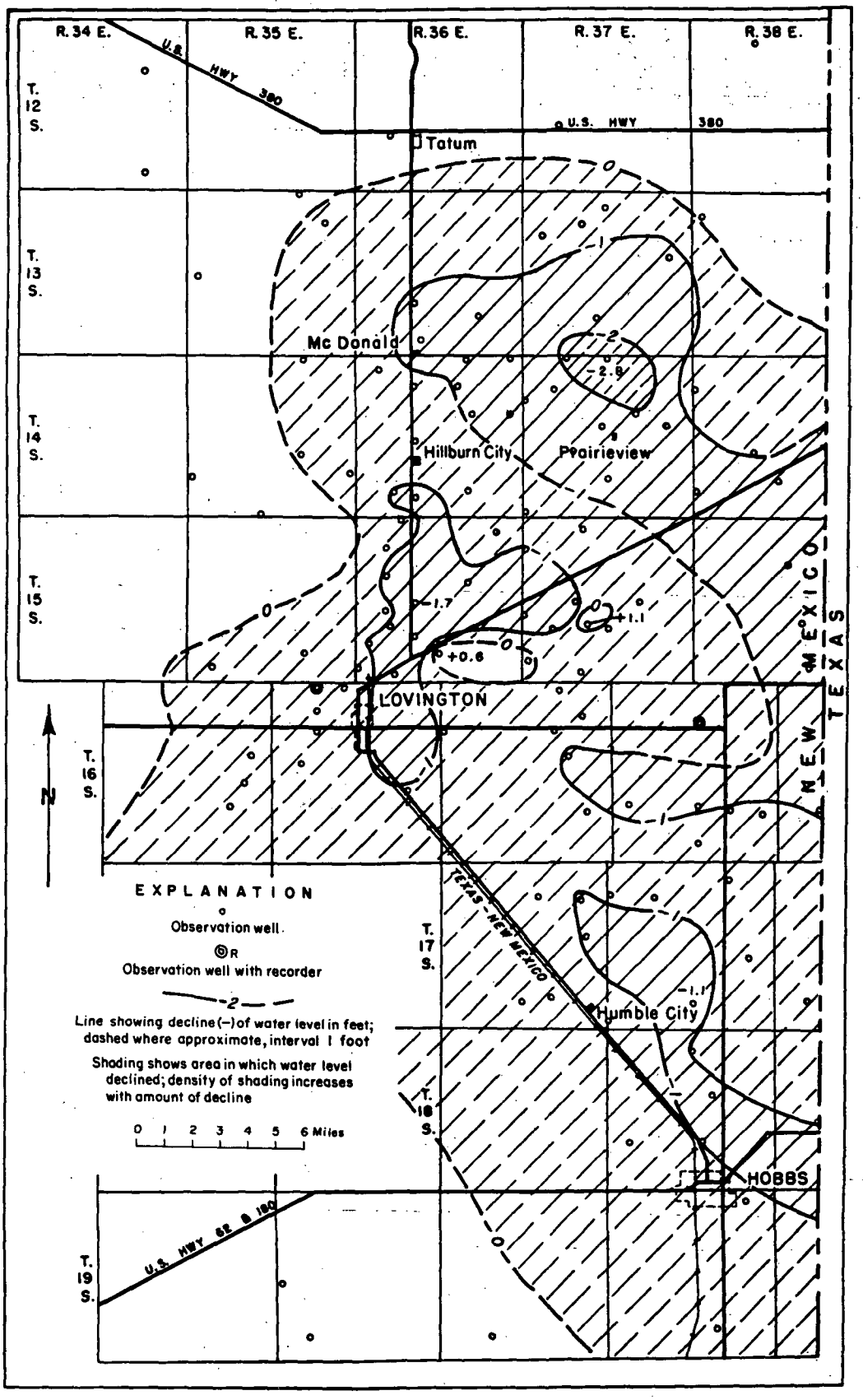


Figure 7.--Change of ground-water level from January 1962 to January 1963 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

Table 13.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN FEBRUARY 1963, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM JANUARY 1962 TO FEBRUARY 1963, IN FEET

(Source: AL, alluvium; CR, Rocks of Cretaceous age, undivided; OG, Ogallala Formation)

Location number	Name	Source	WATER LEVELS: February 1963 Level	Day	Change 1962-63	Highest Level	Highest Year	Lowest Level	Lowest Year	RECORD: Began	Years missing
			Lea County								
11.33.25.442 *	R. W. and Nancy S. Epperson	OG	33.75	19	-0.12	33.56	57	33.88	54	54	
12.34.11.413 *	A. D. Jones Estate	OG	32.01	19	- .36	29.78	50	32.01	63	50	
35.411	do.	OG	38.51	19	+ .49	35.62	49	48.77	55	48	
12.36.29.112 *	E. D. Holt	OG	33.78	19	+ .14	k27.69	44	34.39	60	30	55
12.37.20.343	Alvin Breckon	CR	23.07	27	- .06	23.01	62	26.63	55	54	
12.38. 4.312	G. C. Copeland	CR	41.05	27	- .48	39.15	43	43.35	41	41	
13.32.25.214	N. R. Gross	OG	142.94	19	- .05	142.89	62	143.34	55	54	61
13.35. 2.111a*	R. W. Duncan	OG	29.15	19	+ .68	26.53	56	29.83	62	54	
11.222	A. W. Lott	OG	44.59	19	- .67	29.14	43	47.29	55	30	32-38
19.211	Clara Elkan	OG	50.64	19	-3.47	44.75	46	50.64	63	41	51, 54
13.36.26.324	Mrs. Iona McClish	OG	62.05	27	-1.10	42.24	49	62.05	63	49	
28.113	M. R. Anderson	OG	59.22	19	-1.02	44.77	49	59.22	63	49	
33.321	L. V. Beaman	OG	65.99	27	-2.46	40.16	47	65.99	63	39	58
13.37. 4.422	Brady Lowe	OG	37.46	27	- .87	33.83	43	39.53	55	40	42, 48
7.234 *	W. D. Patton	OG	34.56	27	- .53	29.57	48	34.78	60	47	
9.111	A. Breckon	OG	39.63	27	- .69	36.33	48	39.74	50	48	
13.132 *	Bailey Brownfield	OG	35.23	27	-1.17	26.46	42	35.23	63	30	50, 53
28.413	J. B. and J. D. Doran	OG	53.12	27	-1.77	31.70	45	53.12	63	45	
13.38. 6.341	J. W. Anderson	OG	58.49	27	+ .40	43.02	45	61.89	57	40	
14.32.14.121	R. T. Harris	OG	a140.28	19	+1.16	a140.28	63	141.44	62	60	61
14.33.35.133	Amerada Petroleum Corp.	OG	100.79	19	+ .15	100.79	63	101.11	q60	60	
14.35. 2.112 *	Clara Elkan	OG	42.15	27	- .29	37.06	56	42.15	63	54	55
23.313	Propst and Anderson	OG	37.59	21	- .03	37.56	62	40.61	55	54	
25.241	M. J. Wiggins	OG	50.09	21	- .56	43.30	50	51.48	56	49	
30.134	W. A. Anderson	OG	46.85	21	-3.04	43.81	62	48.93	41	39	
33.433 *	do.	OG	42.86	21	+1.82	39.65	52	44.68	62	30	
14.36. 1.211	G. T. Hanners Estate	OG	67.07	27	- .44	33.80	48	67.07	63	48	53
2.113	Leslie Estep	OG	74.61	27	- .88	48.44	50	75.31	60	49	
6.421	S. A. and W. B. Richardson	OG	53.42	27	- .66	39.03	44	53.42	63	40	45,54,56
9.111	Karl Clayton	OG	60.64	28	- .55	38.36	44	60.64	63	39	
10.212	Karl Clayton	OG	71.92	27	-1.17	47.98	49	71.65	59	49	
13.211 *	Mrs. Mattie Field	OG	54.20	27	-1.13	35.74	46	54.20	63	30	
14.112	do.	OG	56.89	27	-1.23	40.75	46	56.89	63	39	53
21.111	J. W. Mayo	OG	53.27	28	- .37	42.69	49	55.56	60	49	
29.211	G. T. Hanners Estate	OG	52.58	21	- .39	44.64	51	52.58	63	50	
32.121	E. T. Howell	OG	61.08	21	-1.01	53.58	49	62.10	52	49	
33.131	Zula Bell	OG	72.38	21	-1.13	56.92	50	72.38	63	49	
35.111	Fredia Wright	OG	63.33	21	- .43	48.36	49	64.70	60	49	51, 56
14.37. 3.113a	Lois C. Hobbs and Hulda Heidel	OG	60.80	27	-2.81	44.81	52	60.80	63	52	
5.211	S. G. Knoll	OG	57.89	27	-2.23	31.76	49	57.89	63	49	
7.311	E. L. Harbison	OG	64.01	27	-1.32	42.82	49	64.01	63	49	53
8.113	do.	OG	60.54	27	-1.61	37.93	50	60.54	63	49	
13.311	W. T. Carter	OG	69.52	27	-1.44	35.57	49	69.52	63	49	
14.111 *	Dean Goff and C. D. Johnson	OG	72.48	27	-1.96	36.12	49	72.48	63	49	50, 59
16.421	C. A. Fort	OG	56.38	27	-1.22	28.86	43	56.38	63	39	
19.111	A. B. Hennington	OG	-		-	41.15	50	55.68	62	49	63
20.412	G. O. Durham	OG	c62.36	27	-1.55	33.30	45	c62.36	63	40	
27.311	J. R. Fort Estate	OG	60.74	27	-1.39	35.13	48	60.74	63	48	
31.333 *	Amanda Miller	OG	60.76	21	- .74	44.80	50	60.76	63	50	
14.38. 7.113	F. L. Heidel and G. D. Taylor	OG	63.58	27	- .90	40.73	50	63.58	63	50	
21.311 *	Ida M. Cox	OG	49.02	20	- .87	32.48	49	49.02	63	49	
27.313	Guy Cave	OG	55.25	20	-2.57	38.30	51	57.92	60	51	54
31.111	W. J. and D. C. Aldridge	OG	48.53	20	-1.39	37.45	50	48.53	63	49	
15.33.14.100	J. Etcheverry	OG	a105.25	19	-1.80	a101.70	58	a105.25	63	54	55
15.35.31.422	Joe Price	OG	56.07	26	- .17	54.14	51	56.82	57	49	54, 59
35.112	E. L. Anderson	OG	m50.12	26	- .44	39.60	43	59.89	60	40	59
15.36. 1.311	J. W. Scott	OG	59.96	21	- .51	43.60	49	60.81	60	49	
5.211	J. P. Caudill	OG	68.62	21	- .68	52.73	51	68.62	63	50	
8.111a*	Mamie Beaty	OG	60.55	21	- .83	43.37	50	61.06	60	50	51, 53
14.131	Mrs. F. O. Graham	OG	55.01	21	-1.13	42.38	45	55.01	63	41	46-51, 54
17.111	B. F. and Walter Adams	OG	61.96	21	-1.61	44.47	50	61.96	63	49	
20.133	F. B. Parsons	OG	62.99	21	- .42	45.25	49	62.99	63	49	
21.111	U. S. Alexander	OG	64.39	21	-1.69	42.55	49	64.39	63	49	
28.133	J. R. and Boss Hale	OG	67.07	21	-1.32	44.53	47	67.07	63	47	57
29.112	G. A. Fisher	OG	65.01	21	-1.26	44.90	48	65.01	63	48	
30.411	Phyllis Williams	OG	59.75	21	-1.01	46.14	51	59.75	63	49	
31.311	O. A. Payton	OG	61.44	21	- .86	47.35	48	61.44	63	48	59
32.323	Hobdy Gann	OG	70.14	20	-1.72	53.60	49	70.14	63	49	
34.111	B. J. Harkrider	OG	58.37	20	+ .58	44.12	48	60.19	54	48	59

See footnotes at end of table.

Table 13.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, IN FEBRUARY 1963 - Continued

Location number	Name	Source	WATER LEVELS: February 1963 Level	Day	Change 1962-63	Highest Level	Year	Lowest Level	Year	RECORD: Began	Years missing
15.37. 4.113	W. Anderson	OG	54.68	27	+0.06	37.10	50	54.74	62	50	
7.111	D. H. Crockett	OG	61.21	27	-1.01	46.13	50	61.21	63	50	
19.311	Otto Dean	OG	52.70	20	-1.76	41.09	50	52.70	63	48	51, 53
20.221	J. E. Steele	OG	55.91	20	-1.37	35.30	50	55.91	63	49	
21.334 *	R. W. Dean	OG	55.57	20	+1.14	29.20	45	a57.37	61	31	49,57,58-60
23.112	Nellie Fort	OG	42.67	20	- .66	35.59	51	42.67	63	51	
27.111	C. E. Renshaw	OG	51.68	20	- .56	29.38	43	51.73	60	42	45
29.111	E. T. Wilks	OG	58.40	20	-1.09	39.08	51	58.40	63	51	
31.132	W. R. Dean	OG	51.84	20	+ .22	35.04	50	52.06	62	49	
33.313	E. B. Yarbre	OG	62.65	20	- .79	35.97	50	62.65	63	50	
15.38.10.321	Brady Lowe	OG	36.97	20	-1.50	31.84	51	39.75	60	51	
22.441	T. C. Fort	OG	36.91	20	-1.17	28.72	42	37.23	60	40	54
35.133	J. W. Waits	OG	46.98	20	-1.59	37.61	50	46.98	63	50	59
16.32.20.311 *	Taylor and Holeman	OG	256.56	19	+ .16	256.72	62	257.46	60	60	
16.35.13.112 *	C. E. Hilburn	OG	52.29	26	- .12	43.38	49	52.33	61	49	
24.111	T. G. Hester	OG	52.76	26	- .27	44.09	51	53.30	60	51	
26.211	Homer Youngblood	OG	40.53	26	- .20	35.37	49	41.95	55	49	
16.36. 1.431	Mrs. John Easley	OG	-	-	-	39.65	45	55.02	62	39	58, 63
4.Lot 2	C. D. Gore	OG	65.13	21	- .73	46.59	47	65.13	63	47	
5.Lot 2*	Miss Ethel Yadon	OG	56.92	26	- .59	53.96	57	56.92	63	57	
5.Lot 15	I. D. Phillips	OG	61.47	26	- .73	50.09	48	61.47	63	48	
8.211	H. W. Gillette	OG	67.10	26	- .56	53.67	48	67.10	63	48	
11.232	Lovington Country Club	OG	71.49	20	-	53.97	48	71.49	63	48	54,55,57,62
17.133	B. L. Hobbs	OG	64.69	26	- .77	53.15	49	64.69	63	49	
23.240	H. T. Monteith	OG	51.84	26	- .90	46.68	55	51.84	63	54	59
16.37. 1.311	H. W. Wilks	OG	63.18	20	+ .23	34.99	50	63.41	62	50	
2.Lot 4	Ugi Harada	OG	64.17	20	- .57	38.33	50	64.82	60	50	
7.114	Beal Gleason	OG	47.88	20	- .85	38.32	50	47.88	63	50	
11.111 *	H. J. Taylor	OG	64.48	20	- .18	31.93	49	64.69	61	49	51
14.211	W. H. Green	OG	61.21	20	-1.63	39.73	50	61.76	60	50	
25.111	R. L. Davis	OG	50.62	26	- .75	36.87	50	50.76	60	50	
16.38. 3.333 *	State of New Mexico	OG	32.28	20	- .63	24.60	56	32.28	63	54	
25.144	R. C. Eaves	OG	47.04	26	- .51	31.90	42	47.04	63	41	
26.113	Woody's Acres, Inc.	OG	56.10	25	- .92	51.77	54	56.10	63	54	
27.111	do.	OG	61.22	26	-1.00	32.89	50	61.34	61	50	
30.211	Lee Mitchell	OG	47.74	26	-1.34	36.82	51	47.74	63	51	
34.131a*	Woody's Acres, Inc.	OG	65.13	26	+ .61	63.47	59	65.74	62	59	
16.39.20.131	George Bradford	OG	54.74	26	-1.30	32.47	48	54.74	63	48	
.29.Lot 2	L. E. Sims and L. J. Holder	OG	68.59	26	-1.01	54.85	50	68.59	63	50	59
17.33.13.341 *	Potash Co. of America	OG	158.21	18	- .57	146.39	53	158.21	63	53	
17.34.35.130 *	State of New Mexico	OG	91.06	18	- .51	89.88	53	91.98	41	41	59
17.35.35.213 *	do.	OG	39.00	18	- .29	37.94	59	41.45	41	41	
17.36. 3.333 *	U. S. Government	OG	43.00	20	- .46	42.02	44	44.29	41	39	
27.131 *	Dorothy Scharbauer	OG	335.12	18	- .17	33.05	59	35.73	60	48	
17.37.10.211	S. M. Reiland	OG	44.03	26	- .16	32.87	49	45.99	58	49	
12.113	Lee Stiles Estate	OG	57.79	26	-1.03	40.69	50	57.79	63	50	
13.312	W. V. Lawrence	OG	-	-	-	26.05	44	44.88	62	39	63
26.333	Tim Woods	OG	42.92	26	- .76	26.21	43	42.92	63	38	
34.111	C. G. Goodwin	OG	44.94	26	- .81	42.13	57	44.94	63	57	
17.38. 2.311	W. V. Lawrence	OG	54.53	25	- .75	43.65	51	54.53	63	49	
7.111a*	L. R. Sebings	OG	50.17	26	- .96	35.94	52	50.17	63	52	
8.211	J. J. Handley, Jr.	OG	55.83	26	- .95	36.46	50	55.83	63	50	58
24.133	W. V. Lawrence	OG	46.61	26	- .71	41.30	50	46.61	63	50	59
31.311	G. L. Beene	OG	40.47	26	- .36	26.71	49	41.07	60	49	
34.113 *	W. E. Busby	OG	34.71	25	-1.09	24.78	44	34.71	63	44	
17.39.32.111	King Acres	OG	m79.90	25	- .34	72.92	50	m79.90	63	50	
18.35.17.144 *	International Minerals Chemical Corp.	OG	70.96	18	- .10	69.49	56	70.96	63	54	
20.214	do.	OG	72.16	18	+ .10	72.16	61	72.27	58	54	59
18.36.27.111 *	State of New Mexico	OG	40.29	18	+ .16	38.13	43	42.30	59	39	
18.38. 3.313	George Mooney	OG	39.81	25	- .99	29.68	52	39.81	63	52	
15.241 *	Ben Randolph	OG	d47.07	25	-5.82	26.77	43	d47.07	63	40	
27.113 *	City of Hobbs	OG	50.91	25	-1.04	44.00	55	50.91	63	55	
30.214 *	Lavern McCombs	OG	31.10	25	- .60	30.50	62	31.10	63	62	
19.36.19.113	W. M. Evans	AL	16.37	18	+ .13	15.06	47	17.93	41	39	
32.111	P. K. Turner	AL	16.48	18	+ .39	15.15	42	18.60	40	39	
19.37. 1.231	Hobbs Country Club	OG	(a)	25	-	24.75	47	29.91	57	45	53,56,59, 62, 63
32.241 *	O. I. Boyd	AL	12.07	18	+ .16	11.50	33	12.34	49	30	
19.38. 2.242	S. J. Purvis	OG	46.10	25	- .87	42.01	61	52.04	53	41	
34.222	J. O. Coursey	OG	51.21	25	- .65	42.27	49	51.21	63	49	60
20.35. 1.221a*	H. S. Record	AL	a24.89	18	+ .43	a25.32	p61	a26.21	59	59	
20.37. 9.110 *	W. H. Laughlin	AL	28.21	18	+1.48	27.18	43	42.40	38	30	36, 37
20.39.18.344	Earl Kornegay	OG	45.22	25	-1.21	c44.01	62	46.08	54	54	
			Chaves County								
12.31.23.333 *	F. E. Dickson	OG	129.30	19	-0.10	129.20	62	130.37	55	54	
26.333a	do	OG	130.16	19	- .01	130.15	62	130.69	56	54	
15.31.23.311		OG	251.25	19	- .38	244.97	54	251.25	63	54	61

* Additional measurements and other data for this well are listed in following tabulation of seasonal measurements or daily records of water level.

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
d. Nearby well pumped recently.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder graph.
m. Measurement uncertain.
n. February.
p. Also 1962.
q. Also 1961.

Table 14.--SEASONAL WATER LEVELS IN WELLS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN 1962, AND HIGHEST AND LOWEST RECORDED LEVELS, IN FEET BELOW LAND-SURFACE DATUM

Location	11.33.25.442		12.31.23.333		12.34.11.413		12.36.29.112		13.35.2.111a	
Name	R. W. and Nancy S. Epperson		F. E. Dickson		A. D. Jones Estate		E. D. Holt		R. W. Duncan	
Record	1955-62		1953-62		1949-62		1929-62		1953-62	
Highest	May 1956	33.55	Sept. 1960	129.05	May 1949	29.57	Aug. 1943	k27.63	Nov. 1955	26.43
Lowest	Sept. 1959	34.36	Jan., Mar. 1955	130.37	Sept. 1955	32.13	June 1960	34.59	June 1962	29.91
	Jan. 17	33.63	Jan. 17	129.20	Jan. 26	31.65	Jan. 26	33.92	Jan. 26	29.83
1962	Mar. 30	33.66	Mar. 30	129.32	Mar. 30	31.63	Mar. 30	33.91	Mar. 29	29.86
Levels	June 22	33.72	June 22	129.36	June 22	31.65	June 22	34.14	June 22	29.91
	Sept. 27	33.76	Sept. 27	128.91	Sept. 27	31.81	Sept. 27	34.04	Sept. 27	29.09

Location	13.37.7.234		13.37.13.132		14.35.2.112		14.35.33.433		14.36.13.211	
Name	W. D. Patton		Bailey Brownfield		Clara Elkan		W. A. Anderson		Mrs. Mattie Field	
Record	1945-62		1930-62		1960-62		1929-62		1929-62	
Highest	Mar., Nov. 1947	29.56	Aug. 1941	25.46	Jan. 1960	40.64	May, July 1951, Jan. May 1952	39.65	Jan., May 1946	35.74
Lowest	Sept. 1960	34.97	June 1961	35.01	Mar., June 1962	41.93	Jan. 1962	44.68	Sept. 1962	53.70
	Jan. 26	34.03	Jan. 26	34.06	Jan. 18	41.86	Jan. 18	44.68	Jan. 29	53.07
1962	Mar. 29	33.97	Mar. 29	34.33	Mar. 28	41.93	Mar. 28	42.79	Mar. 28	53.19
Levels	June 22	34.39	June 22	34.60	June 20	41.93	June 27	42.72	June 20	53.36
	Oct. 3	34.80	Oct. 3	34.95	Sept. 24	41.73			Sept. 24	53.70

Location	14.37.14.111		14.37.31.333		14.38.21.311		15.36.8.111a		15.37.21.334	
Name	Dean Goff and C. D. Johnson		Amanda Miller		Ida M. Cox		Mamie Beaty		R. W. Dean	
Record	1948-62		1949-62		1949-62		1949-62		1930-62	
Highest	Jan. 1949	36.12	Mar. 1949	43.59	Jan. 1949	32.48	Mar. 1949	41.33	July 1943	29.10
Lowest	Sept. 1959	86.79	Sept. 1953	71.96	Sept. 1956	53.21	Sept. 1958	71.49	Sept. 1958	62.66
	Jan. 26	70.52	Jan. 15	60.02	Jan. 19	48.15	Jan. 22	59.72	Jan. 19	a56.71
1962	June 20	74.60	June 11	62.81	Mar. 28	47.81	Mar. 27	59.08	Mar. 27	a57.52
Levels	Sept. 24	76.35	Sept. 21	64.72	June 20	48.88	June 20	63.52	June 20	a60.03
					Sept. 24	50.68	Sept. 24	64.64	Sept. 24	58.18

Location	16.32.20.311		16.35.13.112		16.36.5.Lot 2		16.37.11.111		16.38.3.333	
Name	Taylor and Holeman		C. E. Hilburn		Miss Ethel Yadon		H. J. Taylor		State of New Mexico	
Record	1959-62		1948-62				1949-62			
Highest	Sept. 1960	257.17	Mar. 1948	c42.36			Jan. 1949	31.93		
Lowest	Oct. 1959	257.50	Sept. 1957	56.16			Sept. 1960	73.88		
	Jan. 17	256.72	Jan. 18	52.17	See table 15		Jan. 22	64.30	See table 16	
1962	Mar. 30	256.69	June 18	53.83			Sept. 26	72.93		
Levels	June 22	256.58	Sept. 21	54.38						
	Oct. 1	256.59								

Location	16.38.34.131a		17.33.13.341		17.34.35.130		17.35.35.213		17.36.3.333	
Name	Woody's Acres Inc.		Potash Co. of America		State of New Mexico		State of New Mexico		U.S. Government	
Record	1952, 1958-62				1940-62		1940-62		1939-62	
Highest	July 1952	45.45			July 1953	89.81	Jan. 1959	37.94	Mar., May 1944	42.00
Lowest	Sept. 1958	71.53			Jan. 1941	91.98	Jan. 1941	41.45	June 1939	45.01
	Jan. 23	65.74	See table 17		Jan. 16	90.55	Jan. 16	38.71	Jan. 16	42.54
1962	Oct. 2	67.79			Mar. 27	90.49	Mar. 27	38.88	Mar. 27	42.63
Levels					June 19	90.78	June 19	39.19	June 19	42.79
					Sept. 24	90.88	Sept. 24	39.24	Sept. 26	42.90

Location	17.36.27.131		17.38.7.111a		17.38.34.113		18.35.17.144		18.36.27.111	
Name	Dorothy Scarbauer		L. R. Sebings		W. E. Busby		International Minerals Chemical Corp.		State of New Mexico	
Record	1947-62		1951-62		1943-62		1953-62		1939-62	
Highest	Sept. 1949	33.00	Mar. 1952	35.59	Jan. 1944	24.78	Sept. 1954	69.41	Oct. 1942	38.09
Lowest	May 1950	36.52	Sept. 1960	53.47	Oct. 1962	34.25	June 1962	70.96	Mar. 1960	43.09
	Jan. 16	34.95	Jan. 23	c49.21	Jan. 24	33.62	Jan. 16	70.86	Jan. 16	40.45
1962	Mar. 27	34.93	Oct. 2	53.28	Mar. 30	33.76	June 19	70.96	Mar. 29	40.57
Levels	June 19	35.02			June 21	34.02	Sept. 24	70.63	June 19	40.68
	Oct. 2	35.13			Oct. 2	34.25			Sept. 26	40.11

Location	18.38.15.241		18.38.27.113		18.38.30.214		19.37.32.241		20.35.1.221a	
Name	Ben Randolph		City of Hobbs		Lavern McCombs		O. I. Boyd		H. S. Record	
Record	1940-62		1954-62		1962		1929-62		1957-62	
Highest	Nov. 1942	26.65	Mar. 1954	42.94	Jan. 1962	30.50	Nov. 1941	10.12	Sept. 1960	24.97
Lowest	June 1962	43.78	July 1954	60.83	Sept. 1962	31.66	June 1934	13.89	Sept. 1957	26.08
	Jan. 24	41.25	Jan. 24	49.87	Jan. 24	30.50	Jan. 16	12.23	Jan. 16	a25.32
1962	Mar. 30	41.84	Mar. 29	50.01	Mar. 29	30.68	Mar. 29	12.35	Mar. 29	a25.40
Levels	June 21	43.78	June 21	50.17	June 21	31.36	June 21	12.06	June 21	24.83
	Oct. 2	43.28	Sept. 26	50.46	Sept. 26	31.66	Oct. 2	11.69	Oct. 2	24.65

Location	20.37.9.110
Name	W. H. Laughlin
Record	1929-62
Highest	Mar. 1943 26.89
Lowest	Aug. 1955 47.54
	Jan. 16 29.69
1962	Mar. 29 29.60
Levels	June 21 30.09
	Oct. 2 29.18

a. Pumping.
c. Nearby well being pumped.
k. From recorder graph.

Table 15.--Daily water level in well 16.36.5.Lot 2, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Miss Ethel Yadon. Drilled unused water-table well in Ogallala Formation, diam. 16 in., depth 97 ft. Highest water level 53.83 Mar. 14, 1957; lowest 56.87 Dec. 25, 28-31, 1962; records available 1956-62.

Daily highest water level from recorder graph, 1962.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	56.32	56.35	56.31	56.27	56.36	56.42	56.44	56.51	56.58	56.67	56.75	56.81
2	56.32	56.35	56.30	56.26	56.35	56.42	56.45	56.51	56.59	56.67	56.75	56.83
3	56.32	56.35	56.30	56.26	56.36	56.42	56.46	56.52	56.59	56.67	56.75	56.82
4	56.32	56.34	56.31	56.27	56.37	56.42	56.47	56.42	56.59	56.68	56.75	56.83
5	56.33	56.35	56.30	56.26	56.35	56.43	56.47	56.52	56.60	56.68	56.75	56.83
6	56.31	56.35	56.29	56.27	56.35	56.43	56.47	56.52	56.60	56.69	56.75	56.81
7	56.32	56.35	56.29	56.25	56.35	56.43	56.48	56.52	56.60	56.69	56.76	56.83
8	56.33	56.35	56.29	56.26	56.35	56.43	56.47	56.53	56.61	56.69	56.75	56.83
9	56.34	56.35	56.28	56.27	56.36	56.42	56.48	56.53	56.61	56.69	56.76	56.83
10	56.34	56.35	56.28	56.27	56.36	56.44	56.48	56.53	56.61	56.69	56.76	56.83
11	56.34	56.35	56.29	56.28	56.36	56.42	56.48	-	56.61	56.69	56.77	56.84
12	56.33	56.35	56.29	56.28	56.35	56.45	56.48	-	56.61	56.69	56.77	56.84
13	56.32	56.35	56.29	56.28	56.37	56.45	-	-	56.61	56.69	56.77	56.84
14	56.35	56.35	56.29	56.28	56.37	56.45	56.48	56.53	56.61	56.69	56.77	56.84
15	56.34	56.35	56.29	56.29	56.37	56.45	56.48	56.52	56.61	56.70	56.77	56.85
16	56.35	56.34	56.29	56.28	56.37	56.45	56.47	56.54	56.61	56.70	56.77	56.85
17	56.33	56.33	56.27	56.29	56.36	56.45	56.51	56.54	56.61	56.70	56.77	-
18	56.34	56.35	56.27	56.29	56.37	56.46	56.51	56.55	56.62	56.71	56.77	-
19	56.34	56.34	56.27	56.30	56.36	56.46	56.50	56.55	56.62	56.71	56.78	-
20	56.34	56.32	56.27	56.30	56.37	56.42	56.50	56.55	56.62	56.71	56.78	56.85
21	56.35	56.31	56.27	56.33	56.38	56.43	56.51	56.55	56.63	58.72	56.79	56.85
22	56.35	56.31	56.27	56.34	56.38	56.43	56.50	56.55	56.63	56.72	56.79	56.85
23	56.34	56.32	56.25	56.34	56.38	56.43	56.49	56.55	56.63	56.73	56.79	56.85
24	56.35	56.32	56.26	56.33	56.38	56.43	56.50	56.56	56.63	56.73	56.79	56.86
25	56.33	56.30	56.27	56.33	56.39	56.43	56.50	56.56	56.63	56.73	56.79	56.87
26	56.36	56.31	56.27	56.33	56.38	56.42	56.50	56.56	56.64	56.73	56.79	56.86
27	56.35	56.31	56.27	56.34	56.38	56.44	56.51	56.57	56.67	56.73	56.81	56.86
28	56.36	56.32	56.27	56.34	56.39	56.44	56.50	56.57	56.66	56.74	56.81	56.87
29	56.35		56.27	56.35	56.41	56.44	56.51	56.57	56.67	56.73	56.81	56.87
30	56.35		56.27	56.36	56.41	56.44	56.51	56.57	56.68	56.74	56.81	56.87
31	56.34		56.27		56.42		56.51	56.57		56.73		56.87

Table 16.--Daily water level in well 16.38.3.333, Tatum-Lovington-Hobbs area, Lea County, N. Mex. State of New Mexico. Test Hole No. 9. Drilled test hole water-table well in Ogallala Formation, diam. 8 in., depth 107 ft. Well cased to 100 ft. Highest water level 24.44 May 29 to June 25, 1960; lowest 46.22 June 4, 1960; records available 1953-62.

Daily highest water level from recorder graph, 1962.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-	-	32.37	-	-	-	36.73	36.63	-	36.37	34.49	33.61
2	-	-	32.88	-	-	-	37.38	36.43	-	36.23	34.45	33.57
3	-	-	33.92	-	-	-	37.15	36.27	42.33	36.12	34.38	33.58
4	-	-	34.12	-	-	-	40.29	36.13	41.73	35.99	34.35	33.53
5	-	-	33.72	-	-	-	40.17	35.98	41.14	35.93	34.33	33.49
6	-	-	33.43	-	-	-	39.19	35.87	40.57	35.85	34.32	33.50
7	-	-	33.25	-	-	-	38.47	35.75	40.03	35.77	34.26	33.48
8	h31.65	-	33.12	-	-	-	38.23	35.74	39.63	35.69	34.23	-
9	-	31.18	32.97	-	-	-	40.82	36.31	39.28	35.62	34.20	-
10	-	31.17	32.85	-	-	-	40.28	40.00	38.97	35.54	34.20	-
11	-	31.16	32.76	-	-	-	-	40.59	38.68	35.47	34.15	-
12	-	h31.15	32.72	-	-	-	-	41.64	38.43	35.40	34.11	-
13	-	31.14	33.22	-	-	-	-	41.35	38.22	35.35	34.08	-
14	-	31.10	33.00	-	-	-	42.27	40.57	37.99	35.28	34.03	-
15	-	31.13	32.85	-	-	-	41.47	40.33	37.80	35.25	34.00	-
16	-	31.09	32.82	-	-	-	40.72	-	37.60	35.20	33.99	-
17	-	31.08	34.18	-	-	-	40.48	-	37.43	35.15	33.94	-
18	-	31.08	33.67	-	-	-	40.51	-	37.23	35.07	33.93	-
19	-	31.07	33.40	-	-	-	40.04	-	37.08	35.05	33.88	-
20	-	31.04	33.24	-	-	-	39.88	-	36.95	35.01	33.87	-
21	-	31.03	33.10	-	-	40.28	39.15	-	36.80	34.94	33.86	-
22	-	31.02	32.98	-	-	39.63	40.10	41.78	36.67	34.92	33.85	-
23	-	31.02	32.84	-	-	39.18	39.24	41.13	36.55	34.87	33.81	-
24	-	32.02	32.78	-	-	39.02	38.75	40.56	36.48	34.83	33.77	-
25	-	32.01	32.68	-	-	38.36	38.40	40.33	38.02	34.78	33.74	-
26	-	31.87	32.62	-	-	37.92	38.07	40.38	37.52	34.73	33.73	-
27	-	31.80	32.54	-	-	37.55	37.78	-	37.15	34.70	33.70	-
28	-	31.78	32.48	-	-	37.19	37.53	-	36.87	34.65	33.68	-
29	-		32.43	-	-	36.89	37.29	-	36.67	34.62	33.65	-
30	-		32.41	-	-	36.77	37.06	-	36.53	34.53	33.63	-
31	-		-		-		36.83	-		34.53		-

h. Tape measurement.

Table 17.--Daily water level in well 17.33.13.341, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Potash Co. of America. Drilled water-table well in Ogallala Formation, diam. 6 in., depth 252 ft. Cased to 252. Highest water level 146.00 Jan. 21, 1953; lowest 158.40 Oct. 28, 1962; records available 1952-62.

Daily highest water level from recorder graph, 1962.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-	157.46	157.54	157.57	157.71	158.00	157.50	157.67	158.08	158.30	158.30	158.10
2	-	157.50	157.50	157.43	157.70	157.85	157.52	157.63	158.09	158.23	158.30	158.12
3	-	157.44	157.52	157.46	157.76	157.86	157.51	157.70	158.09	158.18	158.27	158.05
4	-	157.39	157.61	157.49	157.78	157.89	157.50	157.76	158.13	158.20	158.18	158.12
5	-	157.48	157.51	157.43	157.75	157.87	157.58	157.81	158.12	158.16	158.22	158.10
6	-	157.38	157.48	157.57	157.72	157.88	157.61	157.80	158.03	158.21	158.21	157.98
7	-	157.42	157.49	157.33	157.70	157.83	157.63	157.80	158.06	158.24	158.24	158.15
8	-	157.49	157.57	157.46	157.76	157.88	157.67	157.79	158.15	158.22	158.11	158.14
9	-	157.56	157.56	157.51	157.77	157.82	157.61	157.85	158.24	158.26	158.12	158.20
10	-	157.51	157.61	157.57	157.78	157.80	157.67	157.87	158.19	158.25	158.20	158.11
11	-	157.55	157.70	157.66	157.78	157.70	157.65	157.92	158.17	158.27	158.30	158.19
12	-	157.51	157.61	157.65	157.73	157.71	157.60	157.84	158.21	158.34	158.21	158.16
13	-	157.50	157.62	157.64	157.75	157.69	157.59	157.87	158.25	158.28	158.16	158.13
14	-	157.46	157.68	157.64	157.79	157.58	157.61	157.92	158.23	158.25	158.15	158.09
15	157.40	157.53	157.65	157.65	157.79	157.58	157.60	157.91	158.19	158.28	158.14	158.10
16	157.48	157.48	157.65	157.60	157.84	157.61	157.60	157.96	158.22	158.37	158.08	158.08
17	157.33	157.49	157.63	157.69	157.81	157.56	157.59	157.94	158.24	158.28	158.09	158.07
18	157.41	157.54	157.58	157.68	157.88	157.55	157.57	157.94	158.26	158.22	158.04	158.08
19	157.42	157.50	157.55	157.61	157.84	157.50	157.61	157.94	158.28	158.21	158.08	158.10
20	157.33	157.48	157.55	157.67	157.78	157.47	157.66	157.97	158.30	158.34	158.00	158.16
21	157.38	157.51	157.61	157.71	157.78	157.50	157.67	157.95	158.25	158.25	158.09	158.11
22	157.48	157.52	157.69	157.79	157.90	157.54	157.69	157.98	158.30	158.24	158.10	158.09
23	157.33	157.62	157.44	157.66	157.88	157.60	157.70	157.97	158.31	158.32	158.13	158.16
24	157.41	157.58	157.63	157.63	157.90	157.61	157.72	158.03	158.32	158.28	158.16	158.14
25	157.35	157.56	157.61	157.68	157.92	157.60	157.75	157.95	158.34	158.31	158.17	158.20
26	157.52	157.54	157.61	157.70	157.91	157.60	157.71	157.93	158.32	158.32	158.14	158.14
27	157.47	157.57	157.53	157.75	157.81	157.60	157.67	157.94	158.30	158.34	158.20	158.15
28	157.54	157.60	157.52	157.68	157.92	157.58	157.64	157.98	158.27	158.40	158.21	158.13
29	157.48		157.58	157.73	157.99	157.55	157.63	158.03	158.29	158.33	158.16	158.18
30	157.50		157.53	157.77	157.89	157.50	157.65	158.01	158.34	158.37	158.11	158.02
31	157.41		157.52		157.88		157.63	158.09		158.24		158.03

NEW MEXICO STATE ENGINEER
SANTA FE, N. MEX.

BASIC DATA REPORT

GROUND-WATER LEVELS IN NEW MEXICO, 1963

AND

WATER LEVELS IN ARTESIAN WELLS IN
THE ROSWELL AREA FOR PERIOD OF RECORD

By

W. C. Ballance
United States Geological Survey

1965

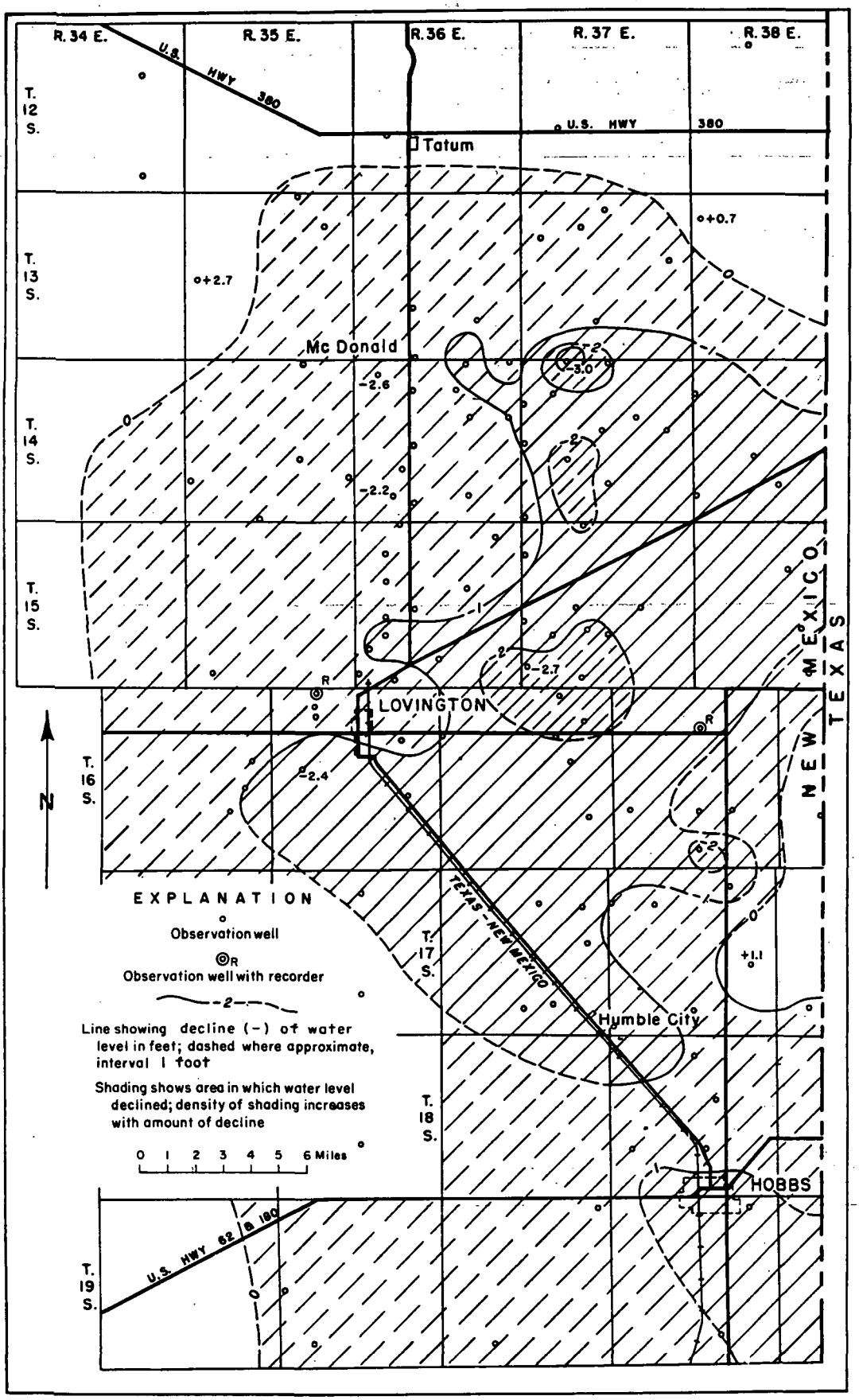


FIGURE 7. -- Change of ground-water level from February 1963 to February 1964 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

Table 13.--*WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN FEBRUARY 1964, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM FEBRUARY 1963 TO FEBRUARY 1964, IN FEET*

(Source: Qa, alluvium; Kr, rocks of Cretaceous age, undivided; To, Ogallala Formation)

Location number	Name	Source	WATER LEVELS							RECORD	
			February 1964		Change	Highest		Lowest		Began	Years missing
			Level	Day	1963-64	Level	Year	Level	Year		
			Lea County								
11.33.25.442 *	R. W. and Nancy S. Epperson	To	33.80	14	-0.05	33.56	57	33.88	54	54	
12.34.11.413 *	A. D. Jones Estate	To	32.20	18	- .19	29.78	50	32.20	64	50	
35.411	do.	To	38.00	18	+ .51	35.62	49	48.77	55	48	
12.36.29.112 *	E. D. Holt	To	33.72	18	+ .06	k27.69	44	34.39	60	30	55
12.37.20.343	Alvin Breckon	Kr	22.79	18	+ .28	23.01	62	26.63	55	54	
12.38. 4.312	G. C. Copeland	Kr	41.46	18	- .41	39.15	43	43.35	41	41	
13.32.25.214	N. R. Gross	To	142.73	14	+ .21	142.73	64	143.34	55	54	61
13.35. 2.111a*	R. W. Duncan	To	29.41	18	- .26	26.53	56	29.83	62	54	
11.222	A. W. Lott	To	a45.69	18	-1.10	29.14	43	47.29	55	30	32-38
19.211	Clara Elkan	To	47.93	18	+2.71	44.75	46	50.64	63	41	51, 54
13.36.26.324	Mrs. Iona McClish	To	62.90	19	- .85	42.24	49	62.90	64	49	
28.113	M. R. Anderson	To	59.74	19	- .52	44.77	49	59.74	64	49	
33.321	L. V. Beaman	To	(Measurement discontinued)			40.16	47	65.99	63	39	58, 64
13.37. 4.422	Brady Lowe	To	38.05	18	- .59	33.83	43	39.53	55	40	42, 48
7.234 *	W. D. Patton	To	34.92	18	- .36	29.57	48	34.92	64	47	
9.111	A. Breckon	To	40.14	18	- .51	36.33	48	40.14	64	48	
13.132 *	Bailey Brownfield	To	35.60	18	- .37	26.46	42	35.60	64	30	50, 53
28.413	J. B. and J. D. Doran	To	53.77	18	- .65	31.70	45	53.77	64	45	
13.38. 6.341	J. W. Anderson	To	57.74	18	+ .75	43.02	45	61.89	57	40	
14.32.14.121	R. T. Harris	To	a,m147.43	14	-7.15	a140.28	63	a,m147.43	64	60	61
14.33.35.133	Amerada Petroleum Corp.	To	100.73	14	+ .06	100.79	63	101.11	q60	60	
14.35. 2.112 *	Clara Elkan	To	42.54	18	- .39	37.06	56	42.54	64	54	55
23.313	Propst and Anderson	To	37.68	13	- .09	37.56	62	40.61	55	54	
25.241	M. J. Wiggins	To	49.80	13	+ .29	43.30	50	51.48	56	49	
30.134	W. A. Anderson	To	47.74	13	- .89	43.81	62	48.93	41	39	
33.433 *	do.	To	43.80	13	- .94	39.65	52	44.68	62	30	
14.36. 1.211	G. T. Hanners Estate	To	67.62	18	- .55	33.80	48	67.62	64	48	53
2.113	Leslie Estep	To	76.01	19	-1.40	48.44	50	76.01	64	49	
6.421	S. A. and W. B. Richardson	To	56.03	18	-2.61	39.03	44	56.03	64	40	45,54,56
9.111	Karl Clayton	To	61.18	13	- .54	38.36	44	61.18	64	39	
10.212	do.	To	72.44	13	- .92	47.98	49	72.44	64	49	
13.211 *	Mrs. Mattie Field	To	55.18	13	- .98	35.74	46	55.18	64	30	
14.112	do.	To	57.57	13	- .68	40.75	46	57.57	64	39	53
21.111	J. W. Mayo	To	55.24	13	-1.97	42.69	49	55.56	60	49	
29.211	G. T. Hanners Estate	To	-	-	-	44.64	51	52.58	63	50	64
32.121	E. T. Howell	To	j63.30	13	-2.22	53.58	49	j63.30	64	49	
33.131	Zula Bell	To	73.13	13	- .75	56.92	50	73.13	64	49	
35.111	Freida Wright	To	62.95	13	+ .38	48.36	49	64.70	60	49	51, 56
14.37. 3.113a	Lois C. Hobbs and Hulda Heidel	To	62.88	18	-2.08	44.81	52	62.88	64	52	
5.211	S. G. Knoll	To	60.93	18	-3.04	31.76	49	60.93	64	49	
7.311	E. L. Harbison	To	65.48	13	-1.47	42.82	49	65.48	64	49	53
8.113	do.	To	62.22	18	-1.68	37.93	50	62.22	64	49	
13.311	W. T. Carter	To	71.65	13	-2.13	35.37	49	71.65	64	49	
14.111 *	Dean Goff and C. D. Johnson	To	73.48	13	-1.00	36.12	49	73.48	64	49	50, 59
16.421	C. A. Fort	To	58.15	13	-1.77	28.86	43	58.15	64	39	
19.111	A. B. Hennington	To	57.04	13	-	41.15	50	57.04	64	49	63
20.412	G. O. Durham	To	65.02	13	-2.66	33.30	45	65.02	64	40	
27.311	J. R. Fort Estate	To	61.78	13	-1.04	35.13	48	61.78	64	48	
31.333 *	Amanda Miller	To	60.97	13	- .21	44.80	50	60.97	64	50	
14.38. 7.113	F. L. Heidel and G. D. Taylor	To	64.97	13	-1.39	40.73	50	64.97	64	50	
21.311 *	Ida M. Cox	To	50.09	12	-1.07	32.48	49	50.09	64	49	
27.313	Guy Cave	To	56.96	12	-1.71	38.30	51	57.92	60	51	54
31.111	W. J. and D. C. Aldridge	To	48.91	12	- .38	37.45	50	48.91	64	49	
15.33.14.100	J. Etcheverry	To	a,m103.68	14	+1.57	a101.70	58	a105.25	63	54	55
15.35.31.422	Joe Price	To	56.20	14	- .13	54.14	51	56.82	57	49	54, 59
35.112	E. L. Anderson	To	(Measurement discontinued)			39.60	43	59.89	60	40	59, 64
15.36. 1.311	J. W. Scott	To	62.31	13	-2.35	43.60	49	62.31	64	49	
5.211	J. P. Caudill	To	68.95	18	- .33	52.73	51	68.95	64	50	
8.111a*	Mamie Beatty	To	60.20	18	+ .35	43.37	50	61.06	60	50	51, 53
14.131	Mrs. F. O. Graham	To	55.39	13	- .38	42.38	45	55.39	64	41	46-51, 54
17.111	B. F. and Walter Adams	To	62.14	18	- .18	44.47	50	62.14	64	49	
20.133	F. B. Parsons	To	63.86	18	- .87	45.25	49	63.86	64	49	
21.111	U.S. Alexander	To	65.15	13	- .76	42.55	49	65.15	64	49	
28.133	J. R. and Boss Hale	To	-	-	-	44.53	47	67.07	63	47	57,64
29.112	G. A. Fisher	To	66.17	18	-1.16	44.90	48	66.17	63	48	
30.411	Phyllis Williams	To	60.77	18	-1.02	46.14	51	60.77	64	49	
31.311	O. A. Payton	To	62.33	14	- .89	47.35	48	62.33	64	48	59
32.323	Hobdy Gann	To	70.11	12	+ .03	53.60	49	70.14	63	49	
34.111	B. J. Harkrider	To	60.24	12	-1.87	44.12	48	60.24	64	48	59

See footnotes at end of table.

Table 13.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, IN FEBRUARY 1964 - Continued

Location number	Name	Source	WATER LEVELS							RECORD	
			February 1964		Change	Highest		Lowest		Began	Years missing
			Level	Day	1963-64	Level	Year	Level	Year		
15.37. 4.113	W. Anderson	To	56.76	13	-2.08	37.10	50	56.76	64	50	
7.111	D. H. Crockett	To	61.67	13	- .46	46.13	50	61.67	64	50	
19.311	Otto Dean	To	b59.73	12	-7.03	41.09	50	b59.73	64	48	51, 53
20.221	J. E. Steele	To	57.23	12	-1.32	35.30	50	57.23	64	49	
21.334 *	R. W. Dean	To	b59.47	13	-3.90	29.20	45	b59.47	64	31	49,57,58-60
23.112	Nellie Fort	To	43.23	13	- .56	35.59	51	43.23	64	51	
27.111	C. E. Renshaw	To	53.55	13	-1.87	29.38	43	53.55	64	42	45
29.111	E. T. Wilks	To	59.68	12	-1.28	39.08	51	59.68	64	51	
31.132	W. R. Dean	To	j54.58	12	-2.74	35.04	50	j54.58	64	49	
33.313	E. B. Yarbro	To	65.02	13	-2.37	35.97	50	65.02	64	50	
15.38.10.321	Brady Lowe	To	38.40	12	-1.43	31.84	51	39.75	60	51	
22.441	T. C. Fort	To	38.04	12	-1.13	28.72	42	38.04	64	40	54
35.133	J. W. Waits	To	47.21	12	- .23	37.61	50	47.21	64	50	59
16.32.20.311 *	Taylor and Holeman	To	256.07	14	+ .49	256.07	64	257.46	60	60	
16.35.13.112 *	C. E. Hilburn	To	52.71	11	- .42	43.38	49	52.71	64	49	
24.111	T. G. Hester	To	53.78	11	-1.02	44.09	51	53.78	64	51	
26.211	Homer Youngblood	To	41.30	11	- .77	35.37	49	41.95	55	49	
16.36. 1.431	Mrs. John Easley	To	-	-	-	39.65	45	55.02	62	39	58,63,64
4.Lot 2	C. D. Gore	To	(Measurement discontinued)			46.59	47	65.13	63	47	64
5.Lot 2*	Miss Ethel Yadon	To	58.03	14	-1.11	53.96	57	58.03	64	57	
5.Lot 15	I. D. Phillips	To	62.09	14	- .62	50.09	48	62.09	64	48	
8.211	H. W. Gillette	To	68.43	11	-1.33	53.67	48	68.43	64	48	
11.232	Lovington Country Club	To	71.60	12	- .11	53.97	48	71.60	64	48	54,55,57,62
17.133	B. L. Hobbs	To	j67.05	11	-2.36	53.15	49	j67.05	64	49	
23.240	H. T. Monteith	To	(a)	11	-	46.68	55	51.84	63	54	59,64
16.37. 1.311	H. W. Wilks	To	63.82	12	- .64	34.99	50	63.82	64	50	
2.Lot 4	Ugi Harada	To	65.06	12	- .89	38.33	50	65.06	64	50	
7.114	Beal Gleason	To	48.83	12	- .95	38.32	50	48.83	64	50	
11.111 *	H. J. Taylor	To	66.47	12	-1.99	31.93	49	66.47	64	49	51
14.211	W. H. Green	To	62.19	12	- .98	39.73	50	62.19	64	50	
25.111	R. L. Davis	To	50.41	12	+ .21	36.87	50	50.76	60	50	
16.38. 3.333 *	State of New Mexico	To	33.56	12	-1.28	24.60	56	33.56	64	54	
25.144	R. C. Eaves	To	-	-	-	31.90	42	47.04	63	41	64
26.113	Woody's Acres, Inc.	To	56.37	11	- .27	51.77	54	56.37	64	54	
27.111	do.	To	61.26	11	- .04	32.89	50	61.34	61	50	
30.211	Lee Mitchell	To	49.28	12	-1.54	36.82	51	49.28	64	51	
34.131a*	Woody's Acres, Inc.	To	67.52	11	-2.39	63.47	59	67.52	64	59	
16.39.20.131	George Bradford	To	-	-	-	32.47	48	54.74	63	48	64
29.Lot 2	L. E. Sims and L. J. Holder	To	68.22	11	+ .37	54.85	50	68.59	63	50	59
17.33.13.341 *	Potash Co. of America	To	158.60	10	- .39	146.39	53	158.60	64	53	
17.34.35.130 *	State of New Mexico	To	91.86	10	- .80	89.88	53	91.98	41	41	59
17.35.35.213 *	do.	To	38.88	10	+ .12	37.94	59	41.45	41	41	
17.36. 3.333	U.S. Government	To	(Measurement discontinued)			42.02	44	44.29	41	39	64
27.131 *	Dorothy Scharbauer	To	35.51	10	- .39	33.05	59	35.73	60	48	
17.37.10.211	S. M. Reiland	To	45.13	11	-1.10	32.87	49	45.99	58	49	
12.113	Lee Stiles Estate	To	59.33	11	-1.54	40.69	50	59.33	64	50	
13.312	W. V. Lawrence	To	-	-	-	26.05	44	44.88	62	39	63,64
26.333	Tim Woods	To	43.87	11	- .95	26.21	43	43.87	64	38	
34.111	C. G. Goodwin	To	46.19	11	-1.25	42.13	57	46.19	64	57	
17.38. 2.311	W. V. Lawrence	To	55.64	11	-1.11	43.65	51	55.64	64	49	
7.111a*	L. R. Sebings	To	51.16	11	- .99	35.94	52	51.16	64	52	
8.211	J. J. Handley, Jr.	To	56.70	11	- .87	36.46	50	56.70	64	50	58
24.133	W. V. Lawrence	To	45.48	11	+1.13	41.30	50	46.61	63	50	59
31.311	G. L. Beene	To	41.98	11	-1.51	26.71	49	41.98	64	49	
34.113 *	W. E. Busby	To	35.44	11	- .73	24.78	44	35.44	64	44	
17.39.32.111	King Acres	To	80.17	11	- .27	72.92	50	80.17	64	50	
18.35.17.144 *	International Minerals Chemical Corp.	To	71.53	10	- .57	69.49	56	71.53	64	54	
20.214	do.	To	72.29	10	- .13	72.16	61	72.29	64	54	59
18.36.27.111 *	State of New Mexico	To	40.90	10	- .61	38.13	43	42.30	59	39	
18.38. 3.313	George Mooney	To	40.74	11	- .93	29.68	52	40.74	64	52	
15.241 *	Ben Randolph	To	d49.18	11	-2.11	26.77	43	d49.18	64	40	
27.113 *	City of Hobbs	To	51.20	11	- .29	44.00	55	51.20	64	55	

See footnotes at end of table.

Table 13.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, IN FEBRUARY 1964 - Continued

Location number	Name	Source	WATER LEVELS							RECORD	
			February 1964		Change 1963-64	Highest		Lowest		Began	Years missing
			Level	Day		Level	Year	Level	Year		
18.38.30.214 *	Lavern McCombs	To	31.65	11	-0.55	30.50	62	31.65	64	62	
19.36.19.113	W. M. Evans	Qa	16.43	10	- .06	15.06	47	17.93	41	39	
32.111	F. K. Turner	Qa	16.92	10	- .44	15.15	42	18.60	40	39	
19.37. 1.231	Hobbs Country Club	To	(a)	10	-	24.75	47	29.91	57	45	53,56,59, 62,63,64
32.241 *	O. I. Boyd	Qa	c12.19	10	- .12	11.50	33	12.34	49	30	
19.38. 2.242	S. J. Purvis	To	47.81	11	-1.71	42.01	61	52.04	53	41	
34.222	J. O. Coursey	To	52.20	10	- .99	42.27	49	52.20	64	49	60
20.35.1.221a*	H. S. Record	Qa	a25.29	10	- .40	a25.29	64	a26.21	59	59	
20.37. 9.110 *	W. H. Laughlin	Qa	28.81	10	- .60	27.18	43	42.40	38	30	36, 37
20.39.18.344	Earl Kornegay	To	(Measurement discontinued)			c44.01	62	46.08	54	54	64
18.344a	do.	To	b48.93	10	-	-	-	-	-	64	
					Chaves County						
12.31.23.333 *	F. E. Dickson	To	129.49	14	- .19	129.20	62	130.37	55	54	
26.333	do.	To	m131.39	14	-	131.35	62	132.29	56	54	63
26.333a	do.	To	-	-	-	130.15	62	130.69	56	54	64
15.31.23.311		To	251.85	14	- .60	244.97	54	251.85	64	54	61

* Additional measurements and other data for this well are listed in following tabulation of seasonal measurements or daily records of water level.

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
d. Nearby well pumped recently.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder graph.
m. Measurement uncertain.
q. Also 1960.

Table 14.--SEASONAL WATER LEVELS IN WELLS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN 1963, AND HIGHEST AND LOWEST RECORDED LEVELS, IN FEET BELOW LAND-SURFACE DATUM.

Location	11.33.25.442		12.31.23.333		12.34.11.413		12.36.29.112		13.35.2.111a	
Name	R. W. and Nancy S. Epperson		F. E. Dickson		A. D. Jones Estate		E. D. Holt		R. W. Duncan	
Record	1955-63		1953-63		1949-63		1929-63		1953-63	
Highest	May 1956	33.55	Sept. 1962	128.91	May 1949	29.57	Aug. 1943	k27.63	Nov. 1955	26.43
Lowest	Sept. 1959	34.36	Jan., Mar. 1955	130.37	Sept. 1955	32.13	June 1960	34.59	June 1962	29.91
1963	Feb. 19	33.75	Feb. 19	129.30	Feb. 19	32.01	Feb. 14	33.78	Feb. 19	29.15
Levels	Sept. 25	33.80	Sept. 25	128.94	Sept. 25	32.12	Sept. 25	33.78	Sept. 25	29.15

Location	13.37.7.234		13.37.13.132		14.35.2.112		14.35.33.433		14.36.13.211	
Name	W. D. Patton		Bailey Brownfield		Clara Elkan		W. A. Anderson		Mrs. Mattie Field	
Record	1945-63		1930-63		1960-63		1929-63		1929-63	
Highest	Mar., Nov. 1947	29.56	Aug. 1941	25.46	Jan. 1960	40.64	May, July 1951, Jan. May 1952	39.65	Jan., May 1946	35.74
Lowest	Sept. 1960	34.97	Feb. 1963	35.23	Feb. 1963	42.15	Jan. 1962	44.68	Sept. 1963	54.68
1963	Feb. 27	34.56	Feb. 27	35.23	Feb. 27	42.15	Feb. 21	42.86	Feb. 27	54.20
Levels	Sept. 25	34.91			Sept. 25	42.14	Sept. 24	43.07	Sept. 24	54.68

Location	14.37.14.111		14.37.31.333		14.38.21.311		15.36.8.111a		15.37.21.334	
Name	Dean Goff and C. D. Johnson		Amanda Miller		Ida M. Cox		Mamie Beatty		R. W. Dean	
Record	1948-63		1949-63		1949-63		1949-63		1930-63	
Highest	Jan. 1949	36.12	Mar. 1949	43.59	Jan. 1949	32.48	Mar. 1949	41.33	July 1943	29.10
Lowest	Sept. 1959	86.79	Sept. 1953	71.96	Sept. 1956	53.21	Sept. 1958	71.49	Sept. 1958	62.66
1963	Feb. 27	72.48	Feb. 21	60.76	Feb. 20	49.02	Feb. 21	60.55	Feb. 20	55.57
Levels	Sept. 24	80.98	Sept. 24	63.41	Sept. 24	51.87	Sept. 24	c72.88	Sept. 24	a62.62

Location	16.32.20.311		16.35.13.112		16.36.5.Lot 2		16.37.11.111		16.38.3.333	
Name	Taylor and Holeman		C. E. Hilburn		Miss Ethel Yadon		H. J. Taylor		State of New Mexico	
Record	1959-63		1948-63				1949-63			
Highest	Sept. 1963	256.01	Mar. 1948	c42.36			Jan. 1949	31.93		
Lowest	Oct. 1959	257.50	Sept. 1957	56.16			Sept. 1960	73.88		
1963	Feb. 19	256.56	Feb. 26	52.29	See table 15		Feb. 20	64.48	See table 16	
Levels	Sept. 25	256.01	Sept. 25	54.29			Sept. 24	b78.50		

Location	16.38.34.131a		17.33.13.341	17.34.35.130		17.35.35.213		17.36.27.131	
Name	Woody's Acres Inc.		Potash Co. of America	State of New Mexico		State of New Mexico		Dorothy Scharbauer	
Record	1952, 1958-63			1940-63		1940-63		1947-63	
Highest	July 1952	45.45		July 1953	89.81	Jan. 1959	37.94	Sept. 1949	33.00
Lowest	Sept. 1963	72.71		Jan. 1941	91.98	Jan. 1941	41.45	May 1950	36.52
1963	Feb. 26	65.13	See table 17	Feb. 18	91.06	Feb. 18	39.00	Feb. 18	j35.12
Levels	Sept. 24	72.71		Sept. 23	91.54	Sept. 23	38.88	Sept. 23	35.75

Location	17.38.7.111a		17.38.34.113		18.35.17.144		18.36.27.111		18.38.15.241	
Name	L. R. Sebings		W. E. Busby		International Minerals Chemical Corp.		State of New Mexico		Ben Randolph	
Record	1951-63		1943-63		1953-63		1939-63		1940-63	
Highest	Mar. 1952	35.59	Jan. 1944	24.78	Sept. 1954	69.41	Oct. 1942	38.09	Nov. 1942	26.65
Lowest	Sept. 1960	53.47	Sept. 1963	34.99	Sept. 1963	71.33	Mar. 1960	43.09	June 1962	43.78
1963	Feb. 26	50.17	Feb. 25	34.71	Feb. 18	70.96	Feb. 18	40.29	Feb. 25	d47.07
Levels	Sept. 24	a	Sept. 24	34.99	Sept. 23	71.33	Sept. 23	40.52	Sept. 24	43.59

Location	18.38.27.113		18.38.30.214		19.37.32.241		20.35.1.221a		20.37.9.110	
Name	City of Hobbs		Lavern McCombs		O. I. Boyd		H. S. Record		W. H. Laughlin	
Record	1954-63		1963		1929-63		1957-63		1929-63	
Highest	Mar. 1954	42.94	Jan. 1962	30.50	Nov. 1941	10.12	Feb. 1963	24.89	Mar. 1943	26.89
Lowest	July 1954	60.83	Sept. 1963	31.93	June 1934	13.89	Sept. 1957	26.08	Aug. 1935	47.54
1963	Feb. 25	50.91	Feb. 25	31.10	Feb. 18	12.07	Feb. 18	a24.89	Feb. 18	28.21
Levels	Sept. 24	51.45	Sept. 24	31.93	Sept. 23	12.04	Sept. 23	a24.96	Jan. 23	28.91

a. Pumping.
b. Pumped recently.
c. Nearby well being pumped.
d. Nearby well pumped recently.
j. Possible discrepancy of a few tenths of a foot between present and previous land surface datum.
k. From recorder graph.

Table 15.--Daily water level in well 16.36.5.Lot 2, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Miss Ethel Yadon. Drilled unused water-table well in Ogallala Formation, diam. 16 in., depth 97 ft. Highest water level 53.83 Mar. 14, 1957; lowest 57.79 Dec. 30, 31, 1963; records available 1956-63.

Daily highest water level from recorder graph, 1963.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	56.87	56.89	56.92	-	56.94	57.04	57.11	57.23	57.36	57.43	-	57.66
2	56.87	56.92	56.93	56.95	56.97	57.05	57.11	57.23	57.36	57.43	57.54	57.67
3	56.87	56.91	-	56.95	56.97	57.05	57.11	57.23	57.36	57.44	57.55	57.67
4	56.87	56.91	-	56.93	56.97	57.05	57.12	57.23	57.37	57.44	57.55	57.68
5	56.88	56.92	56.93	56.94	56.97	57.05	57.13	57.24	57.37	57.44	57.55	57.68
6	56.88	56.91	56.93	56.94	56.98	57.05	57.13	57.25	57.36	57.44	57.55	57.68
7	56.89	56.92	56.93	56.95	56.98	57.05	57.14	57.25	57.37	57.45	57.56	57.69
8	56.88	56.92	56.93	56.95	56.98	57.05	57.14	57.25	57.36	57.45	57.56	57.69
9	56.88	56.92	56.93	56.95	56.99	57.06	57.15	57.25	57.37	57.45	57.57	57.69
10	56.88	56.91	56.91	56.95	57.01	57.06	57.15	57.26	57.37	57.46	57.57	57.70
11	56.90	56.91	56.92	56.96	57.01	57.05	57.15	57.27	57.38	57.47	57.57	57.71
12	56.90	56.92	56.93	56.96	57.01	57.06	57.15	57.27	57.38	57.47	57.57	57.71
13	-	56.92	56.94	56.95	56.99	57.07	57.16	57.27	57.38	57.47	57.58	57.72
14	56.89	56.92	56.93	56.95	57.00	57.07	57.16	57.28	57.38	57.47	57.58	57.73
15	56.89	56.92	56.92	56.94	57.00	57.07	57.15	57.29	57.39	57.48	57.59	57.73
16	56.89	56.92	56.93	56.95	56.99	57.07	57.17	57.29	57.40	57.49	57.59	57.73
17	56.89	56.92	56.93	56.95	56.99	57.09	57.17	57.29	57.40	57.49	57.60	57.74
18	56.89	56.92	56.93	56.95	57.00	57.07	57.17	57.30	57.40	57.49	57.60	57.74
19	56.89	56.92	56.94	56.95	57.01	57.07	57.17	57.31	57.40	57.49	57.60	57.74
20	56.90	56.91	56.94	56.95	57.01	57.09	57.18	57.30	57.39	57.50	57.60	57.75
21	56.89	56.91	56.95	56.95	57.02	57.09	57.18	57.31	57.40	57.51	57.62	57.75
22	56.89	56.93	56.93	56.97	57.03	57.09	57.18	57.31	57.40	57.51	57.63	57.76
23	56.90	56.93	56.93	56.97	57.03	57.09	57.18	57.32	57.40	57.51	57.63	57.77
24	56.89	56.93	56.93	56.97	57.04	57.09	57.18	57.32	57.40	57.52	57.63	57.77
25	56.89	56.93	56.95	56.97	57.03	57.10	57.19	57.33	57.41	57.52	57.64	57.77
26	56.91	56.92	56.93	56.97	57.04	57.10	57.19	57.33	57.41	57.52	57.65	57.77
27	56.89	56.92	56.93	56.97	57.04	57.10	57.20	57.33	57.41	57.53	57.65	57.77
28	56.91	56.93	56.93	56.96	57.03	57.11	57.20	57.33	57.41	57.53	57.65	57.78
29	56.91		56.93	56.97	57.03	57.11	57.22	57.34	57.42	57.53	57.66	57.78
30	56.90		56.93	56.96	57.03	57.11	57.23	57.35	57.43	57.53	57.66	57.79
31	56.90		56.93		57.04		57.23	57.35		-		57.79

Table 16.--Daily water level in well 16.38.3.333, Tatum-Lovington-Hobbs area, Lea County, N. Mex. State of New Mexico. Test Hole No. 9. Drilled test hole water-table well in Ogallala Formation, diam. 8 in., depth 107 ft. Well cased to 100 ft. Highest water level 24.44 May 29 to June 25, 1960; lowest 46.22 June 4, 1960; records available 1953-63.

Daily highest water level from recorder graph, 1963

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	32.52	-	-	-	-	-	-	-	-	-	-
3	-	32.52	-	-	-	-	-	-	-	-	-	-
4	-	32.50	-	-	-	-	-	-	-	-	-	-
5	-	32.48	-	-	-	-	-	-	-	-	-	-
6	-	32.47	-	-	-	-	-	-	-	-	-	-
7	-	32.45	-	-	-	-	-	-	-	-	-	-
8	-	32.43	-	-	-	-	-	-	-	-	-	-
9	-	32.42	-	-	-	-	-	-	-	-	-	-
10	-	32.41	-	-	-	-	-	-	-	-	-	-
11	-	32.45	-	-	-	-	-	-	-	-	-	-
12	-	32.41	-	-	-	-	-	-	-	-	-	-
13	-	32.40	-	-	-	-	-	-	-	-	-	-
14	-	32.37	-	-	-	-	-	-	-	-	-	-
15	-	32.37	-	-	-	-	-	-	-	-	-	-
16	-	32.36	-	-	-	-	-	-	-	-	-	-
17	-	32.35	-	-	-	-	-	-	-	-	-	-
18	-	32.32	-	-	-	-	-	-	-	-	-	-
19	-	32.33	-	-	-	-	-	-	-	-	-	-
20	-	h32.28	-	-	-	-	-	-	-	-	-	-
21	-	32.30	-	-	-	-	-	-	-	-	-	-
22	-	32.25	-	-	-	-	-	-	-	-	-	-
23	-	32.25	-	-	-	-	-	-	-	-	-	-
24	-	32.23	-	-	-	-	-	-	h36.19	-	-	-
25	-	32.24	-	-	-	-	-	-	36.35	-	-	-
26	-	32.20	-	-	-	-	-	-	36.55	-	-	-
27	-	32.20	-	-	-	-	-	-	36.00	-	-	-
28	-		-	-	-	-	-	-	33.28	-	-	-
29	-		-	-	-	-	-	-	33.10	-	-	-
30	-		-	-	-	-	-	-	-	-	-	-
31	-		-		-		-	-		-		-

h. Tape measurement.

Table 17.--Daily water level in well 17.33.13.341, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Potash Co. of America. Drilled water-table well in Ogallala Formation, diam. 6 in., depth 252 ft. Cased to 252. Highest water level 146.00 Jan. 21, 1953; lowest 158.77 Dec. 22, 1963; records available 1952-63.

Daily highest water level from recorder graph, 1963.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	158.11	158.22	158.10	158.30	158.21	158.27	158.30	158.35	158.48	158.49	158.48	158.46
2	158.10	158.32	158.22	158.32	158.32	158.30	158.27	158.38	158.48	158.49	158.35	158.55
3	158.03	158.27	158.23	158.37	158.29	158.30	158.27	158.45	158.46	158.48	-	158.48
4	158.15	158.31	158.33	158.25	158.27	158.23	158.30	158.45	158.43	158.46	158.39	158.54
5	158.21	158.30	158.23	158.20	158.24	158.27	158.32	158.44	158.42	158.46	158.45	158.53
6	158.17	158.31	158.23	158.21	158.26	158.35	158.37	158.46	158.41	158.39	-	158.54
7	158.19	158.25	158.23	158.21	158.19	158.34	158.42	158.42	158.37	158.40	-	158.60
8	158.10	158.24	158.21	158.20	158.21	158.32	158.39	158.38	158.40	158.40	-	158.62
9	158.13	158.23	158.12	158.21	158.29	158.39	158.38	158.38	-	158.41	-	158.53
10	158.18	158.20	158.09	158.23	158.29	158.38	158.34	158.39	158.32	158.45	-	158.61
11	158.22	158.27	158.13	158.29	158.28	158.37	158.38	158.35	158.38	158.48	158.66	158.69
12	158.04	158.23	158.23	158.34	158.37	158.35	158.35	158.36	158.42	-	158.63	158.60
13	158.04	158.20	158.27	158.29	158.38	158.39	158.32	158.37	158.38	-	158.56	158.65
14	158.14	158.19	158.14	158.28	158.33	158.31	158.29	158.37	158.42	158.53	158.59	158.58
15	158.13	158.21	158.11	158.25	158.31	158.27	158.28	158.36	158.48	158.48	158.57	158.59
16	158.09	158.28	158.28	158.31	158.33	158.27	158.35	158.38	158.38	158.49	158.55	158.55
17	158.20	158.24	158.30	158.29	158.33	158.31	158.38	158.45	158.34	158.51	158.58	158.53
18	158.27	158.21	158.32	158.32	158.24	158.21	158.39	158.47	158.31	158.45	158.47	158.58
19	158.30	158.27	158.36	158.27	158.27	158.25	158.39	158.47	158.35	158.42	158.52	158.48
20	158.30	158.17	158.31	158.24	158.22	158.29	158.42	158.43	158.32	e158.40	158.52	158.58
21	158.17	158.29	158.28	158.19	158.24	158.26	158.42	158.43	158.38	158.45	158.48	158.59
22	158.21	158.13	158.22	158.28	158.32	158.36	158.41	158.42	158.37	158.40	158.62	158.77
23	158.21	158.15	158.18	158.21	158.25	158.44	158.43	158.41	158.38	158.38	158.60	158.68
24	158.08	158.08	158.20	158.24	158.34	158.40	158.43	158.37	158.42	158.44	158.55	158.63
25	158.11	158.15	158.26	158.27	158.32	158.37	158.40	158.35	158.41	158.51	158.62	158.57
26	158.19	158.01	158.11	158.28	158.39	158.34	158.36	158.37	158.40	158.53	158.63	158.63
27	158.08	158.06	158.16	158.29	158.38	158.35	158.37	158.33	158.43	158.59	158.58	158.54
28	158.18	158.18	158.21	158.35	158.38	158.32	158.35	158.36	158.46	158.57	158.64	158.60
29	158.22		158.31	158.38	158.29	158.31	158.33	158.45	158.56	158.44	158.55	158.52
30	158.22		158.27	158.31	158.30	158.29	158.35	158.40	158.51	-	158.53	158.55
31	158.20		158.25		158.27		158.37	158.44		158.53		158.50

e. Estimated.

NEW MEXICO STATE ENGINEER
SANTA FE, N. MEX.

BASIC DATA REPORT

GROUND-WATER LEVELS IN NEW MEXICO, 1964

By

Fred E. Busch

United States Geological Survey

1966

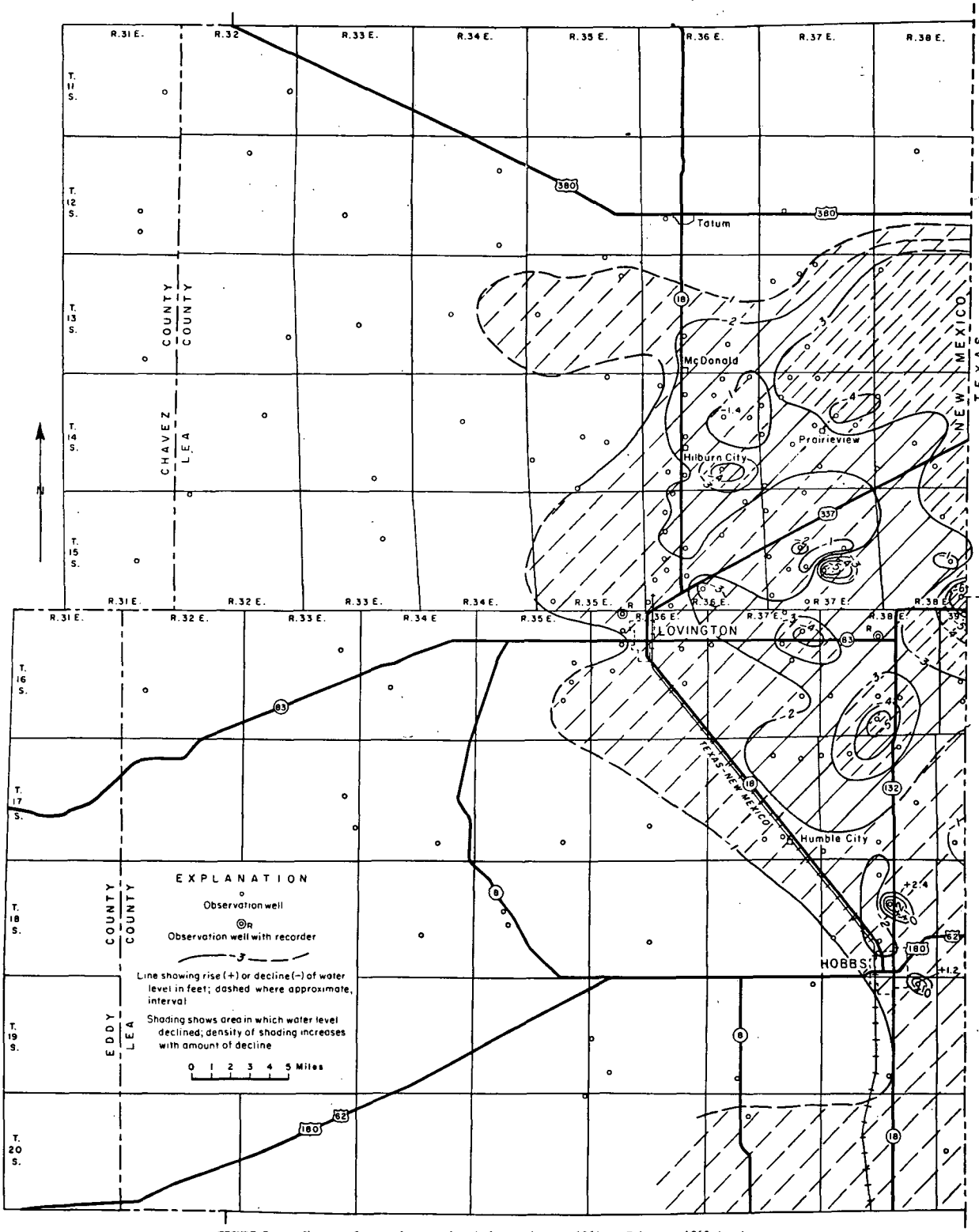


FIGURE 7. -- Change of ground-water level from February 1964 to February 1965 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

Table 11.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN FEBRUARY 1965, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM FEBRUARY 1964 TO FEBRUARY 1965, IN FEET

(Source: Qa, alluvium; Kr, rocks of Cretaceous age, undivided; To, Ogallala Formation)

Location number	Name	Source	WATER LEVELS							RECORD	
			February 1965		Change	Highest		Lowest		Began	Years missing
			Level	Day	1964-65	Level	Year	Level	Year		
			Lea County								
11.31.24.311	State of N. Mex.	To	56.18	17	-	-	-	-	-	65	
11.32.24.411		To	67.22	17	-	-	-	-	-	65	
11.33.25.442 *	R. W. and Nancy S. Epperson	To	33.86	17	-0.06	33.56	57	33.88	54	54	
12.32. 3.433		To	49.39	17	-	-	-	-	-	65	
12.33.28.211	Mrs. B. C. Roach	To	82.12	17	-	-	-	-	-	65	
12.34.11.413 *	A. D. Jones Estate	To	32.49	19	- .29	29.78	50	32.49	65	50	
35.411	do.	To	38.59	19	- .59	35.62	49	48.77	55	48	
12.36.29.112 *	E. D. Holt	To	34.44	11	- .72	k27.69	44	34.39	60	30	55
12.37.20.343	Alvin Breckon	Kr	23.68	11	- .89	23.01	62	26.63	55	54	
12.38. 4.312	G. C. Copeland	Kr	42.07	11	- .61	39.15	43	43.35	41	41	
13.31.35.143		To	173.50	17	-	-	-	-	-	65	
13.32.25.214	N. R. Gross	To	142.83	17	- .10	142.73	64	143.34	55	54	61
13.33.22.323		To	97.97	16	-	-	-	-	-	65	
13.34.21.111	Leon Rice	To	63.97	17	-	-	-	-	-	65	
13.35. 2.111a*	R. W. Duncan	To	29.94	11	- .53	26.53	56	29.94	65	54	
11.222	A. W. Lott	To	46.82	11	-1.13	29.14	43	47.29	55	30	32-38
19.211	Clara Elkan	To	49.65	11	-1.72	44.75	46	50.64	63	41	51,54
13.36.26.324	Mrs. Iona McClish	To	65.62	18	-2.72	42.24	49	65.62	65	49	
28.113	M. R. Anderson	To	61.81	18	-2.07	44.77	49	61.81	65	49	
13.37. 4.422	Brady Lowe	To	39.66	11	-1.57	33.83	43	39.66	65	40	42,48
7.234 *	W. D. Patton	To	(Measurement discontinued)			29.57	48	34.92	64	47	65
7.234a	do.	To	35.75	11	-	-	-	-	-	65	
9.111	A. Breckon	To	40.78	11	- .64	36.33	48	40.78	65	48	
13.132 *	Bailey Brownfield	To	(Measurement discontinued)			26.46	42	35.60	64	30	50,53,65
28.413	J. B. and J. D. Doran	To	56.96	18	-3.19	31.70	45	56.96	65	45	
13.38. 6.341	J. W. Anderson	To	61.52	11	-3.78	43.02	45	61.89	57	40	
14.32.14.121	R. T. Harris	To	140.32	16	+7.11	a140.28	63	a,m147.43	64	60	61
14.33.35.133	Amerada Petroleum Corp.	To	100.76	16	- .03	100.79	63	101.11	q60	60	
14.34.16.233	Troy Fort	To	54.74	16	-	-	-	-	-	65	
14.35. 2.112 *	Clara Elkan	To	43.35	11	- .81	37.06	56	43.35	65	54	55
23.313	Propst and Anderson	To	38.54	11	- .86	37.56	62	40.61	55	54	
25.241	M. J. Wiggins	To	54.79	11	-4.99	43.30	50	54.79	65	49	
30.134	W. A. Anderson	To	48.63	11	- .89	43.81	62	48.93	41	39	
33.433 *	do.	To	44.80	11	-1.00	39.65	52	44.80	65	30	
14.36. 1.211	G. T. Hanners Estate	To	69.20	18	-1.58	33.80	48	69.20	65	48	53
2.113	Leslie Estep	To	79.06	18	-3.05	48.44	50	79.06	65	49	
6.421	S. A. and W. B. Richardson	To	56.42	11	- .39	39.03	44	56.42	65	40	45,54,56
9.111	Karl Clayton	To	63.98	11	-2.80	38.36	44	63.98	65	39	
10.212	do.	To	75.36	18	-2.92	47.98	49	75.36	65	49	
13.211 *	Mrs. Mattie Field	To	56.46	18	-1.28	35.74	46	56.46	65	30	
14.112	do.	To	58.93	18	-1.36	40.75	46	58.93	65	39	53
21.111	J. W. Mayo	To	57.78	11	-2.54	42.69	49	57.78	65	49	
29.211	C. T. Hanners Estate	To	(Measurement discontinued)			44.64	51	52.58	63	50	64,65
32.121	E. T. Howell	To	64.57	11	-1.27	53.58	49	64.57	65	49	
33.131	Zula Bell	To	74.89	18	-1.76	56.92	50	74.89	65	49	
35.111	Freida Wright	To	67.35	18	-4.40	48.36	49	67.35	65	49	51,56
14.37. 3.113a	Lois C. Hobbs and Hulda Heidel	To	65.90	18	-3.02	44.81	52	65.90	65	52	
5.211	S. G. Knoll	To	64.53	18	-3.60	31.76	49	64.53	65	49	
7.311	E. L. Harbison	To	67.13	18	-1.65	42.82	49	67.13	65	49	53
8.113	do	To	65.23	18	-3.01	37.93	50	65.23	65	49	
13.311	W. T. Carter	To	74.94	18	-3.29	35.37	49	74.94	65	49	
14.111 *	Dean Goff and C. D. Johnson	To	77.95	18	-4.47	36.12	49	77.95	65	49	50,59
16.421	C. A. Fort	To	60.40	18	-2.25	28.86	43	60.40	65	39	
19.111	A. B. Hennington	To	58.72	18	-1.58	41.15	50	58.72	65	49	63
20.412	G. O. Durham	To	67.94	18	-2.92	33.30	45	67.94	65	40	
27.311	J. R. Fort Estate	To	64.23	18	-2.45	35.13	48	64.23	65	48	
31.333 *	Amanda Miller	To	63.05	18	-2.08	44.80	50	63.05	65	50	
14.38. 7.113	F. L. Heidel and G. D. Taylor	To	69.00	18	-4.03	40.73	50	69.00	65	50	
21.311 *	Ida M. Cox	To	52.41	10	-2.32	32.48	49	52.41	65	49	
27.313	Guy Cave	To	60.27	10	-3.31	38.30	51	60.27	65	51	54
31.111	W. J. and D. C. Aldridge	To	51.10	18	-2.19	37.45	50	51.10	65	49	
15.31.23.311*		To	252.89	17	-1.04	244.97	54	252.89	65	54	
15.32. 6.223	Texaco	To	188.94	17	-	-	-	-	-	65	
15.33.14.100	J. Etcheverry	To	(Measurement discontinued)			a101.70	58	a105.25	63	54	55,65
14.143	do.	To	100.39	16	-	-	-	-	-	65	
15.35.31.422	Joe Price	To	57.46	11	-1.26	54.14	51	57.46	65	49	54,59
15.36. 1.311	J. W. Scott	To	64.42	18	-2.11	43.60	49	64.42	65	49	
5.211	J. P. Caudill	To	71.53	18	-2.58	52.73	51	71.53	65	50	
8.111a*	Mamie Beatty	To	61.54	18	-1.34	43.37	50	61.54	65	50	51,53
14.131	Mrs. F. O. Graham	To	56.39	19	-1.00	42.38	45	56.39	65	41	46-51,54
17.111	B. F. and Walter Adams	To	64.50	18	-2.36	44.47	50	64.50	65	49	

See footnotes at end of table.

Table 11.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, IN FEBRUARY 1965 - Continued

Location number	Name	Source	WATER LEVELS							RECORD	
			February 1965		Change	Highest		Lowest		Began	Years missing
			Level	Day	1964-65	Level	Year	Level	Year		
15.36.20.133	F. B. Parsons	To	64.80	18	- .94	45.25	49	64.80	65	49	
21.111	U.S. Alexander	To	67.33	19	-2.18	42.55	49	67.33	65	49	
28.133	J. R. and Boss Hale	To	69.26	19	-	44.53	47	69.26	65	47	57,64
29.112	G. A. Fisher	To	67.39	18	-1.22	44.90	48	67.39	65	48	
30.411	Phyllis Williams	To	61.89	18	-1.12	46.14	51	61.89	65	49	
31.311	O. A. Payton	To	63.32	11	- .99	47.35	48	63.32	65	48	59
32.323	Hobdy Gann	To	70.89	10	- .78	53.60	49	70.89	65	49	
34.111	B. J. Harkrider	To	63.40	10	-3.16	44.12	48	63.40	65	48	59
15.37. 4.113	W. Anderson	To	58.46	18	-1.70	37.10	50	58.46	65	50	
7.111	D. H. Crockett	To	63.17	18	-1.50	46.13	50	63.17	65	50	
19.311	Otto Dean	To	(a)	10	-	41.09	50	b59.73	64	48	51,53,65
20.221	J. E. Steele	To	59.36	10	-2.13	35.30	50	59.36	65	49	
21.334 *	R. W. Dean	To	60.00	10	- .53	29.20	45	60.00	65	31	49,57-60
23.112	Nellie Fort	To	44.15	10	- .92	35.59	51	44.15	65	51	
27.111	C. E. Renshaw	To	59.04	10	-5.49	29.38	43	59.04	65	42	45
29.111	E. T. Wilks	To	61.63	10	-1.63	39.08	51	61.63	65	51	
31.132	W. R. Dean	To	56.39	10	-1.81	35.04	50	56.39	65	49	
33.313	E. B. Yarbro	To	-	-	-	35.97	50	65.02	64	50	65
15.38.10.321	Brady Lowe	To	41.66	10	-3.26	31.84	51	41.66	65	51	
22.441	T. C. Fort	To	38.87	10	- .83	28.72	42	38.87	65	40	54
35.133	J. W. Waits	To	54.07	10	-6.86	37.61	50	54.07	65	50	59
16.32.20.311 *	Taylor and Holeman	To	256.25	17	- .18	256.07	64	257.46	60	60	
16.33.12.133	Skelly Oil Co.	To	121.82	16	-	-	-	-	-	65	
16.34.20.233	Marathon Oil Co.	To	105.07	16	-	-	-	-	-	65	
16.35.13.112 *	C. E. Hilburn	To	53.18	19	- .47	43.38	49	53.18	65	49	
24.111	T. G. Hester	To	54.90	19	-1.12	44.09	51	54.90	65	51	
26.211	Homer Youngblood	To	42.83	19	-1.53	35.37	49	42.83	65	49	
16.36. 1.431	Mrs. John Easley	To	(Measurement discontinued)			39.65	45	55.02	62	39	58,63-65
5.Lot 2*	Miss Ethel Yadon	To	59.28	11	-1.25	53.96	57	59.28	65	57	
5.Lot 15	I. D. Phillips	To	63.18	19	-1.09	50.09	48	63.18	65	48	
8.211	H. W. Gillette	To	69.27	19	- .84	53.67	48	69.27	65	48	
11.232	Lovington Country Club	To	(a)	12	-	53.97	48	71.60	64	48	54,55,57, 62,65
17.133	B. L. Hobbs	To	j68.52	19	-1.47	53.15	49	j68.52	65	49	
23.241	H. T. Monteith	To	57.09	19	-	46.68	55	57.09	65	54	59,64
16.37. 1.311	H. W. Wilks	To	67.98	12	-4.16	34.99	50	67.98	65	50	
2.Lot 4	Ugi Harada	To	67.74	12	-2.68	38.33	50	67.74	65	50	
7.114	Beal Gleason	To	49.92	12	-1.09	38.32	50	49.92	65	50	
11.111 *	H. J. Taylor	To	70.18	12	-3.71	31.93	49	70.18	65	49	51
14.211	W. H. Green	To	64.80	12	-2.61	39.73	50	64.80	65	50	
25.111	R. L. Davis	To	52.31	12	-1.90	36.87	50	52.31	65	50	
16.38. 3.333 *	State of New Mexico	To	35.92	12	-2.36	24.60	56	35.92	65	54	
25.144	R. C. Eaves	To	(Measurement discontinued)			31.90	42	47.04	63	41	64,65
26.113	Woody's Acres, Inc.	To	(a)	12	-	51.77	54	56.37	64	54	65
27.111	do.	To	64.65	12	-3.39	32.89	50	64.65	65	50	
30.211	Lee Mitchell	To	(a)	12	-	36.82	51	49.28	64	51	65
34.131a*	Woody's Acres, Inc.	To	73.24	12	-5.72	63.47	59	73.24	65	59	
16.39.20.131	George Bradford	To	-	-	-	32.47	48	54.74	63	48	64,65
29.Lot 2	L. J. Holder	To	70.68	12	-2.46	54.85	50	70.68	65	50	59
17.33.13.341 *	Potash Co. of America	To	159.30	10	- .70	146.39	53	159.30	65	53	
17.34.35.130 *	State of New Mexico	To	92.53	10	- .67	89.88	53	92.53	65	41	59
17.35.35.213 *	do.	To	39.27	10	- .39	37.94	59	41.45	41	41	
17.36.27.131 *	Dorothy Scharbauer	To	35.97	10	- .46	33.05	59	35.97	65	48	
17.37.10.211	S. M. Reiland	To	47.44	12	-2.31	32.87	49	47.44	65	49	
12.113	Lee Stiles Estate	To	61.56	12	-2.23	40.69	50	61.56	65	50	
13.312	W. V. Lawrence	To	(Measurement discontinued)			26.05	44	44.88	62	39	63-65
26.333	Tim Woods	To	45.27	12	-1.40	26.21	43	45.27	65	38	
34.111	C. G. Goodwin	To	49.16	12	-2.97	42.13	57	49.16	65	57	
17.38. 2.311	W. V. Lawrence	To	58.75	12	-3.11	43.65	51	58.75	65	49	
7.111a*	L. R. Sebings	To	53.83	12	-2.67	35.94	52	53.83	65	52	
8.211	J. J. Handley, Jr.	To	60.25	12	-3.55	36.46	50	60.25	65	50	58
24.133	W. V. Lawrence	To	-	-	-	41.30	50	46.61	63	50	59,65
31.311	G. L. Beene	To	43.87	12	-1.89	26.71	49	43.87	65	49	
34.113 *	W. E. Busby	To	37.01	12	-1.57	24.78	44	37.01	65	44	
17.39.32.111	King Acres	To	80.72	12	- .55	72.92	50	80.72	65	50	
18.34.22.343	Conoco Oil Co.	To	110.47	16	-	-	-	-	-	65	
18.35.17.144 *	International Minerals Chemical Corp.	To	71.71	10	- .18	69.49	56	71.71	65	54	
20.214	do.	To	72.39	10	- .10	72.16	61	72.39	65	54	59
18.36.27.111 *	State of New Mexico	To	41.25	19	- .35	38.13	43	42.30	59	39	
18.38. 3.313	George Mooney	To	43.21	12	-2.47	29.68	52	43.21	65	52	
15.241 *	Ben Randolph	To	46.78	12	+2.40	26.77	43	d49.18	64	40	
27.113 *	City of Hobbs	To	53.58	19	-2.38	44.00	55	53.58	65	55	

See footnotes at end of table.

Table 11.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, IN FEBRUARY 1965 - Concluded

Location number	Name	Source	WATER LEVELS							RECORD	
			February 1965		Change 1964-65	Highest		Lowest		Began	Years missing
			Level	Day		Level	Year	Level	Year		
18.38.30.214 *	Lavern McCombs	To	32.64	19	-0.99	30.50	62	32.64	65	62	
19.36.19.113	W. M. Evans	Qa	16.84	19	- .41	15.06	47	17.93	41	39	
32.111	F. K. Turner	Qa	17.28	19	- .36	15.15	42	18.60	40	39	
19.37. 1.231	Hobbs Country Club	To	30.65	12	-	24.75	47	30.65	65	45	53,56,59, 62-64
32.241 *	O. I. Boyd	Qa	12.32	19	- .13	11.50	33	12.34	49	30	
19.38. 2.242	S. J. Purvis	To	46.64	19	+1.17	42.01	61	52.04	53	41	
34.222	J. O. Coursey	To	53.23	19	-1.03	42.27	49	53.23	65	49	60
20.35. 1.221a*	H. S. Record	Qa	25.76	19	- .47	a25.29	64	a26.21	59	59	
20.37. 9.110 *	W. H. Laughlin	Qa	30.22	19	-1.41	27.18	43	42.40	38	30	36,37
20.39.18.344a	Earl Kornegay	To	b50.69	19	-1.76	b48.93	64	b50.69	65	64	
			Chaves County								
12.31.23.333 *	F. E. Dickson	To	129.45	17	+ .04	129.20	62	130.37	55	54	
26.333	do.	To	(Measurement discontinued)			131.35	62	132.29	56	54	63,65
26.333a	do.	To	130.20	17	-	130.15	62	130.69	56	54	64
15.31.23.311 *		To	252.89	17	-1.04	244.97	54	252.89	65	54	61

* Additional measurements and other data for this well are listed in following tabulation of seasonal measurements or daily records of water level.

a. Well being pumped.
b. Well pumped recently.
d. Nearby well pumped recently.
j. Possible discrepancy of a few tenths of a foot between present and previous land-surface datum.
k. From recorder graph.
m. Measurement uncertain.
q. Also 1960.

Table 12.--SEASONAL WATER LEVELS IN WELLS IN TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY, N. MEX., IN 1964, AND HIGHEST AND LOWEST RECORDED LEVELS, IN FEET BELOW LAND-SURFACE DATUM

Location	11.33.25.442		12.31.23.333		12.34.11.413		12.36.29.112		13.35.2.111a	
Name	R. W. and Nancy S. Epperson		F. E. Dickson		A. D. Jones Estate		E. D. Holt		R. W. Duncan	
Record	1955-64		1953-64		1949-64		1929-64		1953-64	
Highest	May 1956	33.55	Sept. 1962	128.91	May 1949	29.57	Aug. 1943	k27.63	Nov. 1955	26.43
Lowest	Sept. 1959	34.36	Jan., Mar. 1955	130.37	Sept. 1964	32.37	June 1960	34.59	June 1962	29.91
1964	Feb. 14	33.80	Feb. 14	129.49	Feb. 18	32.20	Feb. 18	33.72	Feb. 18	29.41
Levels	Sept. 17	33.82	Sept. 17	129.50	Sept. 17	32.37	Sept. 16	33.49	Sept. 16	29.68

Location	13.37.7.234		13.37.13.132		14.35.2.112		14.35.33.433		14.36.13.211	
Name	W. D. Patton		Bailey Brownfield		Clara Elkan		W. A. Anderson		Mrs. Mattie Field	
Record	1945-64		1930-64		1960-64		1929-64		1929-64	
Highest	Mar., Nov. 1947	29.56	Aug. 1941	25.46	Jan. 1960	40.64	May, July 1951, Jan. May 1952	39.65	Jan., May 1946	35.74
Lowest	Sept. 1964	35.26	Feb. 1964	35.60	Sept. 1964	42.86	Jan. 1962	44.68	Sept. 1964	55.84
1964	Feb. 18	34.92	Feb. 18	35.60	Feb. 18	42.54	Feb. 13	43.80	Feb. 13	55.18
Levels	Sept. 15	35.26			Sept. 16	42.86	Sept. 16	44.52	Sept. 16	55.84

Location	14.37.14.111		14.37.31.333		14.38.21.311		15.31.23.311*		15.36.8.111a	
Name	Dean Goff and C. D. Johnson		Amanda Miller		Ida M. Cox				Mamie Beatty	
Record	1948-64		1949-64		1949-64		1961-64		1949-64	
Highest	Jan. 1949	36.12	Mar. 1949	43.59	Jan. 1949	32.48	Jan. 1954	244.97	Mar. 1949	41.33
Lowest	Sept. 1964	88.62	Sept. 1953	71.96	Sept. 1964	58.61	Sept. 1964	252.40	Sept. 1958	71.49
1964	Feb. 13	73.48	Feb. 13	60.97	Feb. 12	50.09	Feb. 14	251.85	Feb. 18	60.20
Levels	Sept. 16	88.6	Sept. 16	70.50	Sept. 16	58.61	Sept. 16	252.40	Sept. 16	64.45

Location	15.37.21.33'		16.32.20.311		16.35.13.112		16.36.5.Lot 2		16.37.11.111	
Name	R. W. De-		Taylor and Holeman		C. E. Hilburn		Miss Ethel Yadon		H. J. Taylor	
Record	1930-64		1959-64		1948-64				1949-64	
Highest	July 43	29.10	Sept. 1963	256.01	Mar. 1948	c42.36			Jan. 1949	31.93
Lowest	Sept. 1964	63.66	Oct. 1959	257.50	Sept. 1964	56.22			Sept. 1960	73.88
1964	Feb. 13	a59.47	Feb. 14	256.07	Feb. 11	52.71	See table 13		Feb. 12	66.47
Levels	Sept. 16	63.66	Sept. 16	256.13	Sept. 16	56.22				

Location	16.38.3.333		16.38.34.131a		17.33.13.341		17.34.35.130		17.35.35.213	
Name	State of New Mexico		Woody's Acres Inc.		Potash Co. of America		State of New Mexico		State of New Mexico	
Record			1952, 1958-64				1940-64		1940-64	
Highest			July 1952	45.45			July 1953	89.81	Jan. 1959	37.94
Lowest			Sept. 1964	83.89			Sept. 1964	92.25	Jan. 1941	41.45
1964	See table 14		Feb. 11	67.52	See table 15		Feb. 10	91.86	Feb. 10	38.88
Levels			Sept. 15	83.89			Sept. 15	92.25	Sept. 15	39.08

Location	17.36.27.131		17.38.7.111a		17.38.34.113		18.35.17.144		18.36.27.111	
Name	Dorothy Scharbauer		L. R. Sebings		W. E. Busby		International Minerals Chemical Corp.		State of New Mexico	
Record	1947-64		1951-64		1943-64		1953-64		1939-64	
Highest	Sept. 1949	33.00	Mar. 1952	35.59	Jan. 1944	24.78	Sept. 1954	69.41	Oct. 1942	38.09
Lowest	May 1950	36.52	Sept. 1964	61.70	Sept. 1964	36.56	Sept. 1964	71.62	Mar. 1960	43.09
1964	Feb. 10	35.51	Feb. 11	51.16	Feb. 11	35.44	Feb. 10	71.53	Feb. 10	40.90
Levels	Sept. 15	35.95	Sept. 15	61.70	Sept. 15	36.56	Sept. 15	71.62	Sept. 15	41.33

Location	18.38.15.241		18.38.27.113		18.38.30.214		19.37.32.241		20.35.1.221a	
Name	Ben Randolph		City of Hobbs		Lavern McCombs		O. I. Boyd		H. S. Record	
Record	1940-64		1954-64		1962-64		1929-64		1957-64	
Highest	Nov. 1942	26.65	Mar. 1954	42.94	Jan. 1962	30.50	Nov. 1941	10.12	Feb. 1963	24.89
Lowest	Sept. 1964	48.85	July 1954	60.83	Sept. 1964	32.71	June 1934	13.89	Sept. 1957	26.08
1964	Feb. 11	d49.18	Feb. 11	51.20	Feb. 11	31.65	Feb. 10	c12.19	Feb. 10	a25.29
Levels	Sept. 15	48.85	Sept. 15	53.17	Sept. 15	32.71	Sept. 15	12.39	Sept. 15	a25.49

Location	20.37.9.110									
Name	W. H. Laughlin									
Record	1929-64									
Highest	Mar. 1943	26.89								
Lowest	Aug. 1935	47.54								
1964	Feb. 10	28.81								
Levels	Sept. 15	30.05								

* Additional data for this well are listed as follows: 15.31.23.311, 1961: Mar. 9, 249.93, June 28, 250.27, Sept. 12, 250.53; 1962: Jan. 17, 250.87, Mar. 30, 251.04, June 22, 251.19; 1963: Feb. 19, 251.25, Sept. 25, 251.39.

a. Well being pumped.
c. Nearby well being pumped.
d. Nearby well pumped recently.
k. From recorder graph.

Table 13.--Daily water level in well 16.36.5.Lot 2, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Miss Ethel Yadon. Drilled unused water-table well in Ogallala Formation, diam. 16 in., depth 97 ft. Highest water level 53.83 Mar. 14, 1957; lowest 59.19 Dec. 30,31, 1964; records available 1956-64.

Daily highest water level from recorder graph, 1964.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	57.80	57.93	58.06	58.13	58.20	58.23	58.30	58.41	58.93	58.88	58.96	59.07
2	57.80	57.94	58.06	58.14	58.20	58.23	58.31	58.42	58.98	58.89	58.95	59.08
3	57.81	57.93	58.06	58.15	58.20	58.23	58.31	58.42	59.03	58.89	58.96	59.08
4	57.81	57.94	58.07	58.15	58.20	58.23	58.32	58.42	59.06	58.89	58.97	59.09
5	57.81	57.94	58.07	58.15	58.20	58.24	58.32	58.42	59.04	58.89	58.98	59.10
6	57.81	57.95	58.07	58.14	58.22	58.23	58.32	58.43	59.01	58.89	58.98	59.10
7	57.82	57.96	58.07	58.15	58.21	58.23	58.34	58.44	58.99	58.89	58.98	59.10
8	57.83	57.97	58.07	58.15	58.21	58.24	58.34	58.44	58.96	58.90	58.99	59.11
9	57.84	57.97	58.08	58.15	58.22	58.25	58.34	58.44	58.96	58.89	58.99	59.12
10	57.83	57.96	58.08	58.15	58.22	58.24	58.35	58.45	59.08	58.89	58.99	59.12
11	57.85	57.94	58.09	58.15	58.22	58.25	58.35	58.45	59.13	58.90	59.00	59.13
12	57.85	57.96	58.08	58.16	58.23	58.25	58.36	58.46	59.08	58.90	59.00	59.13
13	57.86	57.96	58.08	58.16	58.23	58.25	58.36	58.46	59.05	58.90	59.00	59.13
14	57.85	57.96	58.09	58.16	58.23	58.27	58.35	58.45	59.02	58.90	59.00	59.14
15	57.87	58.03	58.09	58.16	58.24	58.27	58.36	58.46	59.00	58.90	59.01	59.13
16	57.87	-	58.10	58.16	58.24	58.27	58.36	58.46	h58.96	58.90	59.02	59.14
17	57.87	-	58.10	58.17	58.24	58.27	58.36	58.46	58.96	58.90	59.02	59.14
18	57.87	-	58.10	58.17	58.23	58.28	58.37	58.46	58.94	58.91	59.02	59.14
19	57.89	58.04	58.11	58.18	58.23	58.28	58.37	58.42	58.94	58.91	59.03	59.14
20	57.89	58.05	58.12	58.19	58.22	58.28	58.37	58.41	58.94	58.92	59.04	59.16
21	57.89	58.05	58.11	58.19	58.21	58.28	58.37	58.62	58.93	58.92	59.05	59.16
22	57.89	58.05	58.11	58.19	58.21	58.28	58.37	58.63	58.93	58.92	59.04	59.16
23	57.89	58.05	58.11	58.19	58.21	58.28	58.38	58.62	58.92	58.92	59.04	59.16
24	57.90	58.05	58.11	58.19	58.21	58.28	58.38	58.63	58.91	58.92	59.04	59.16
25	57.90	58.06	58.12	58.19	58.21	58.29	58.37	58.69	58.91	58.93	59.05	59.16
26	57.90	58.06	58.12	58.19	58.21	58.29	58.39	58.74	58.91	58.94	59.05	59.16
27	57.92	58.06	58.12	58.19	58.22	58.29	58.40	58.80	58.90	58.94	59.06	59.16
28	57.92	58.05	58.14	58.19	58.22	58.30	58.40	58.88	58.90	58.95	59.06	59.16
29	57.92	58.06	58.14	58.19	58.22	58.30	58.40	58.88	58.88	58.96	59.08	59.18
30	57.93		58.14	58.20	58.23	58.30	58.41	58.85	58.89	58.95	59.07	59.19
31	57.93		58.14		58.23		58.41	58.85		58.95		59.19

h. Tape measurement

Table 14.--Daily water level in well 16.38.3.333, Tatum-Lovington-Hobbs area, Lea County, N. Mex. State of New Mexico. Test Hole No. 9. Drilled test hole water-table well in Ogallala Formation, diam. 8 in., depth 107 ft. Well cased to 100 ft. Highest water level 24.44 May 29 to June 25, 1960; lowest 46.22 June 4, 1960; records available 1953-64.

Daily highest water level from recorder graph, 1964

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-	-	-	-	-	-	-	-	-	38.90	37.30	36.45
2	-	-	-	-	-	-	-	-	-	38.85	37.30	36.67
3	-	-	-	-	-	-	-	-	-	40.70	37.20	36.85
4	-	-	-	-	-	-	-	-	-	41.30	37.15	36.95
5	-	-	-	-	-	-	-	-	-	41.80	37.05	37.15
6	-	-	-	-	-	-	-	-	-	41.50	37.05	37.20
7	-	-	-	-	-	-	-	-	-	41.05	37.07	37.35
8	-	-	-	-	-	-	-	-	-	40.70	37.12	37.45
9	-	-	-	-	-	-	-	-	-	40.35	37.18	37.57
10	-	-	-	-	-	-	-	-	-	40.05	34.10	37.75
11	-	-	-	-	-	-	-	-	-	39.75	33.00	37.80
12	-	h33.56	-	-	-	-	-	-	-	39.55	32.70	37.85
13	-	-	-	-	-	-	-	-	-	39.35	32.00	37.85
14	-	-	-	-	-	-	-	-	-	39.15	32.00	37.85
15	-	-	-	-	-	-	-	-	h40.83	38.95	33.00	37.77
16	-	-	-	-	-	-	-	-	40.53	38.85	33.80	37.75
17	-	-	-	-	-	-	-	-	40.30	38.70	32.40	37.70
18	-	-	-	-	h40.45	-	-	-	40.30	38.60	33.75	37.57
19	-	-	-	-	-	-	-	-	40.90	38.55	32.15	37.55
20	-	-	-	-	-	-	-	-	41.25	38.30	32.00	37.50
21	-	-	-	-	-	-	-	-	41.18	38.20	32.85	37.45
22	-	-	-	-	-	-	-	-	40.75	38.15	34.70	37.35
23	-	-	-	-	-	-	-	-	40.40	38.00	33.00	37.30
24	-	-	-	-	-	-	-	-	40.75	37.90	33.00	37.25
25	-	-	-	-	-	-	-	-	41.45	37.75	33.60	37.20
26	-	-	-	-	-	-	-	-	40.05	37.75	34.50	37.26
27	-	-	-	-	-	-	-	-	41.70	37.67	35.10	37.15
28	-	-	-	-	-	-	-	-	40.00	37.60	35.55	37.10
29	-	-	-	-	-	-	-	-	41.80	37.50	35.90	37.07
30	-		-	-	-	-	-	-	39.15	37.40	36.15	37.05
31	-		-		-		-	-		37.35		37.00

h. Tape measurement

Table 15.--Daily water level in well 17.33.13.341, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Potash Co. of America. Drilled water-table well in Ogallala Formation, diam. 6 in., depth 252 ft. Cased to 252. Highest water level 146.00 Jan. 21, 1953; lowest 159.28 Oct. 8, Dec. 17, 1964; records available 1952-64.

Daily highest water level from recorder graph, 1964.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	158.57	158.64	158.74	158.64	158.88	158.89	158.95	158.96	158.93	159.08	159.20	159.03
2	158.52	158.65	158.60	158.70	158.85	158.93	158.97	158.91	158.93	159.20	159.09	159.11
3	158.61	158.73	158.70	158.78	158.92	158.90	158.95	158.92	158.96	159.13	159.22	159.21
4	158.61	158.68	158.78	158.75	158.85	158.88	158.97	158.93	158.97	159.25	159.27	159.22
5	158.60	158.60	158.63	158.66	158.81	158.87	158.92	158.94	158.98	159.21	159.15	159.11
6	158.59	158.75	158.73	158.74	158.86	158.81	158.95	158.95	159.03	159.24	159.12	159.10
7	-	158.69	158.67	158.83	158.81	158.78	158.97	159.00	158.96	159.20	159.12	159.08
8	-	159.65	158.63	158.67	158.86	158.78	158.95	159.01	158.93	159.28	159.09	159.02
9	-	158.59	158.71	158.67	158.87	158.90	158.99	159.02	158.92	159.21	159.04	159.02
10	-	158.60	158.70	158.66	158.84	158.88	159.02	159.02	158.91	159.21	159.03	159.07
11	-	158.45	158.76	158.75	158.84	158.86	159.07	159.06	158.92	159.15	159.06	159.12
12	-	158.51	158.63	158.79	158.91	158.89	159.12	158.99	158.91	159.14	159.15	159.17
13	158.54	158.56	158.72	158.82	158.85	158.90	158.96	158.95	158.82	159.09	159.09	159.23
14	158.49	158.54	158.84	158.81	158.87	158.98	159.00	-	158.81	159.09	159.16	159.25
15	158.59	158.69	158.70	158.75	158.90	158.98	159.00	-	158.83	159.10	159.22	159.07
16	158.61	158.63	158.80	158.77	158.96	158.91	159.01	-	158.90	159.14	159.24	159.18
17	158.58	158.67	158.66	158.87	158.94	158.88	159.00	158.94	158.83	159.18	159.16	159.28
18	158.64	158.68	159.63	158.78	158.93	158.93	158.98	158.92	158.88	159.24	159.06	159.01
19	158.70	158.52	158.72	158.81	158.92	158.89	158.90	158.87	158.94	159.17	159.20	159.08
20	158.67	158.66	158.82	158.84	158.89	158.90	158.92	158.97	158.99	159.11	159.17	159.12
21	158.66	158.62	158.61	158.83	158.85	158.86	158.92	159.01	158.99	159.12	159.22	159.13
22	158.67	158.62	158.57	158.82	158.84	158.90	158.93	159.10	159.02	159.18	159.01	159.04
23	158.62	158.63	158.67	158.82	158.88	158.96	158.99	159.04	159.03	159.12	159.01	159.04
24	158.76	158.58	158.65	158.79	158.87	158.99	158.99	159.01	159.05	159.04	159.00	159.06
25	158.62	158.67	158.76	158.75	158.83	158.94	159.01	159.01	158.94	159.10	159.01	159.12
26	158.58	158.62	158.60	158.73	158.84	158.96	159.03	158.95	159.00	159.11	159.05	159.25
27	158.62	158.69	158.74	158.81	158.86	158.96	159.04	159.01	159.01	159.13	159.10	159.15
28	158.56	158.65	158.86	158.83	158.85	158.99	159.06	159.01	158.95	159.11	159.22	159.17
29	158.63	158.62	158.81	158.75	158.83	159.00	158.98	158.94	159.03	159.10	159.26	159.25
30	158.58		158.77	158.80	159.00	158.97	158.96	158.92	159.03	159.07	159.03	159.23
31	158.70		158.73		159.00		158.98	158.94		159.16		159.16

TECHNICAL REPORT 34

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1965, and changes in water levels, 1961-1965

By
F. E. Busch & J. D. Hudson

United States Geological Survey

With
a section on

Irrigated Acreage in New Mexico, 1965

by
Earl F. Sorensen
State Engineer Office

1967

Tatum-Lovington-Hobbs Area, Lea County

by

J. D. Hudson

Lea County on the Southern High Plains or Llano Estacado in southeastern New Mexico, adjoining Texas, contains some of the most prosperous irrigated farming areas in the State. The Ogallala Formation of Pliocene Age is the principal aquifer from which ground water is obtained. The Lea County Underground Water Basin, declared on August 21, 1931, was extended on October 1, 1952, and now includes 2,180 square miles.

The ground-water reservoir underlying the plains is recharged by precipitation, mainly from runoff in the drainageways and numerous depressions that characterize much of the Llano Estacado. Ground water moves east-southeasterly from New Mexico into Texas, except in the southern part of the plains in New Mexico where ground-water movement is more southerly. Springs along the western and southern borders of the plains discharge a small quantity of water, but wells discharge by far the greater amount of water from the ground-water reservoir.

In 1965, the irrigated area on the plains in Lea County was about 105,000 acres. Pumpage was estimated according to duty of water for the area, from past records. Pumpage is directly related to effective precipitation and, based on precipitation records, pumpage was estimated to have been about 168,000 acre-feet in 1965; 118,000 acre-feet in 1961; 136,000 acre-feet in 1962; 145,000 acre-feet in 1963; and 197,000 acre-feet in 1964. In the latter year, total precipitation for the basin averaged only 7.6 inches.

Precipitation during 1965 was nearly normal throughout the area. Tatum received 11.14 inches, which is slightly below normal. Lovington received 13.31 inches, Hobbs 9.14 inches, both about normal.

Since 1929, water levels in the Tatum-Lovington-Hobbs area of Lea County have been measured by the Geological Survey in cooperation with the State Engineer. Water levels were measured in 144 wells in January 1966; levels in 36 of these wells also were measured in September 1965.

Water levels measured in January or February 1966 (table 6) and the same wells measured in the winter of 1965 were used in preparing the map (fig. 11) showing changes in water levels in 1965. The greatest decline -- 4.7 feet -- occurred southeast of Lovington. Figure 12 shows changes in water level for the 5-year period 1961-65. The greatest 5-year decline -- 13.2 feet -- occurred southeast of Lovington.

The Southern High Plains in Lea County is one of New Mexico's major petroleum-producing areas, and in recent years demand for water for use in oil-field waterflooding operations has been increasing. Instances of ground-water contamination by oil-field brines are not infrequent. This situation, which results from surface disposal of oil-field brines and from leaky oil-well casing, has been largely corrected in recent years by subsurface disposal of brine and periodic testing of oil-well casing.

Table 6.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN FEBRUARY 1966, HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET BELOW LAND-SURFACE DATUM, AND CHANGE FROM FEBRUARY 1965 TO FEBRUARY 1966, IN FEET

(Source: S9, valley fill; 7H, Ogallala Formation)

LOCATION NUMBER	NAME	SOURCE	66 WATER LEVEL	DATE	CHANGE	HIGHEST LEVEL	YR	LOWEST LEVEL	YR	YEARS OF RECORD
11S 31E 24 311	STATE OF N. MEX.	7H	56.11	2- 8	0.07	56.11	66	56.18	65	65-66
11S 32E 24 411		7H	67.55	2- 8	-0.33	67.22	65	67.55	66	65-66
11S 33E 25 442	EPPERSON	7H	34.02	2- 8	-0.16	33.56	57	34.02	66	53-66
12S 31E 23 333	F.E. DICKSON	7H	129.61	2- 8	-0.16	129.20	62	130.37	55	53-66
12S 31E 26 333A	F.E. DICKSON	7H	130.16	2- 8	0.04	130.15	62	130.69	56	53-63,65-66
12S 32E 03 433		7H	49.33	2- 8	0.06	49.33	66	49.39	65	65-66
12S 33E 28 211	MRS. B.C. ROACH	7H	82.25C	2- 8	-0.13	82.12	65	82.25C	66	65-66
12S 34E 11 413	A.D. JONES EST.	7H	32.83	2-15	-0.34	29.78	50	32.83	66	49-66
12S 34E 35 411	A.D. JONES	7H	39.10	2-15	-0.51	35.62	49	59.00	62	48-65
12S 36E 29 112	E.D. HOLT	7H				27.71	44	39.32A	51	41-54,56-65
12S 37E 20 343	ALVIN BRECKON	7H	23.19	2-15	0.49	22.79	64	26.63	55	54-66
12S 38E 04 312	G.C. COPELAND	7H	42.08	2-15	-0.01	39.15	43	43.35	41	41-66
13S 31E 35 143		7H	173.54	2- 8	-0.04	173.50	65	173.54	66	65-66
13S 32E 25 214	N.R. GROSS	7H	142.84	2- 8	-0.01	142.73	64	143.34	55	53-60,62-66
13S 33E 22 323		7H	97.44	2-18	0.53	97.44	66	97.97	65	65-66
13S 34E 21 111	LEON RICE	7H	64.38	2-15	-0.41	63.97	65	64.38	66	65-66
13S 35E 02 111A	R.W. DUNCAN	7H	30.38	2-15	-0.44	26.53	56	30.38	66	53-66
13S 35E 11 222	A.W. LOTT	7H	47.43	2-15	-0.61	29.14	43	74.29	55	39-66
13S 35E 19 211	ELKAN	7H	50.44M	2-15	-0.79	44.75	46	79.48	40	39-50,52-66
13S 36E 26 324	MRS. IONA MC CLISH	7H	67.05	2-16	-1.43	42.24	49	67.05	66	49-66
13S 36E 28 113	M.R. ANDERSON	7H	62.93	2-15	-1.12	44.77	49	62.93	66	49-66
13S 37E 04 422	BRADY LOWE	7H	39.02	2-15	0.64	33.83	43	39.66	65	40-41,43-47,49-66
13S 37E 07 234A	W.D. PATTON	7H	39.51A	2-15	-3.76	35.75A	65	39.51A	66	64-66
13S 37E 09 111	A.P. BRECKON	7H	41.04	2-15	-0.26	36.33	48	41.04	66	46,48-66
13S 37E 28 413	J.B. AND J.D. DOREN	7H	56.85	2-16	0.11	31.70	45	56.96	65	45-66
13S 38E 06 341	J.W. ANDERSON	7H				43.02	45	61.89	57	40-65
14S 32E 14 121	RHODA TULK HARRIS	7H	143.95A	2- 9	-3.63	140.28A	63	147.43A	64	59-60,62-66
14S 33E 35 133	AMERADA PERTOL. CORP.	7H	100.78	2- 9	-0.02	100.73	64	101.11	61	60-66
14S 34E 16 233	TROY FORT	7H				54.74	65	54.74	65	65
14S 35E 02 112	CLARA ELKAN	7H	44.14	2-15	-0.79	37.06	56	44.14	66	54,56-66
14S 35E 23 313	PROPST AND ANDERSON	7H	38.40	2- 9	0.14	37.56	62	40.61	55	54-66
14S 35E 25 241	M.J. WIGGINS	7H	55.39	2- 9	-0.60	43.30	50	55.39	66	49-66
14S 35E 30 134	W.A. ANDERSON	7H	48.92B	2- 9	-0.29	43.81	62	48.93	41	39-66
14S 35E 33 433	W.A. ANDERSON	7H	45.08	2- 9	-0.28	39.65	52	45.08	66	42-66
14S 36E 01 211	G.T. HANNERS	7H	70.05	2-16	-0.85	33.80	48	70.05	66	48-52,54-66
14S 36E 02 113	LESLIE ESTEP	7H	81.09	2-16	-2.03	48.44	50	81.09	66	49-66
14S 36E 06 421	RICHARDSON	7H	57.30	2-15	-0.88	39.03	44	67.04A	54	39-44,46-55,57-66
14S 36E 09 111	KARL CLAYTON	7H	65.42	2-15	-1.44	38.36	44	65.42	66	39-66
14S 36E 10 212	KARL CLAYTON	7H	76.87	2-16	-1.51	47.98	49	76.87	66	49-66
14S 36E 13 211	MRS. MATTIE FIELD	7H	57.54	2-16	-1.08	35.74	46	57.54	66	42-66
14S 36E 14 112	MRS. MATTIE FIELD	7H	60.22	2-16	-1.29	40.75	46	60.22	66	39-52,54-66
14S 36E 21 111	MAYO	7H	59.00	2-15	-1.22	42.69	49	59.00	66	49-66
14S 36E 32 121	E.T. HOWELL	7H	64.75	2- 9	-0.18	53.58	49	64.75	66	49-66
14S 36E 33 131	BELL	7H	75.25	2- 9	-0.36	56.92	50	75.25	66	49-66
14S 36E 35 111	WRIGHT	7H	67.80	2-16	-0.45	48.36	49	67.80	66	49-50,52-55,57-66
14S 37E 03 113A	HOBBS AND HEIDEL	7H	66.33	2-16	-0.43	44.81	52	66.33	66	52-66
14S 37E 05 211	KNOLL	7H	67.17	2-16	-2.64	31.76	49	67.17	66	49-66
14S 37E 07 311	E.L. HARBISON	7H	68.35	2-16	-1.22	42.82	49	77.53A	53	49-66
14S 37E 08 113	HARBISON	7H	66.57	2-16	-1.34	37.93	50	66.57	66	49-66
14S 37E 13 311	W.T. CARTER	7H	77.52	2-16	-2.58	35.57	49	77.52	66	49-66
14S 37E 14 111	GOFF AND JOHNSON	7H	79.34	2-16	-1.39	36.12	49	79.34	66	48-49,51-66
14S 37E 16 421	C.A. FORT	7H	61.96	2-16	-1.56	28.86	43	61.96	66	39-66
14S 37E 19 111	A.B. HENNINGTON	7H	59.18	2-16	-0.46	41.15	50	59.18	66	49-62,64-66
14S 37E 20 412	G.O. DURHAM	7H	69.89	2-16	-1.95	33.30	45	69.89	66	39-66
14S 37E 27 311	J.R. FORT ESTATE	7H	66.43	2-16	-2.20	35.13	48	66.43	66	48-66
14S 37E 31 333	AMANDA MILLER	7H	64.81	2-16	-1.76	44.80	50	64.81	66	49-66
14S 38E 07 113	HEIDEL AND TAYLOR	7H	70.91	2-16	-1.91	40.73	50	70.91	66	50-66
14S 38E 21 311	IDA M. COX	7H	53.00	2-16	-0.59	32.48	49	53.00	66	49-66
14S 38E 27 313	GUY CAVE	7H	60.67	2-16	-0.40	38.30	51	60.67	66	51-53,55-66
14S 38E 31 111	ALDRIDGE	7H	52.15	2-16	-1.05	37.45	50	52.15	66	48-66
15S 31E 23 311		7H	253.86	2- 8	-0.97	244.97	54	253.86	66	54-66
15S 32E 06 223	TEXACO	7H	189.08	2- 8	-0.14	188.94	65	189.08	66	65-66
15S 33E 14 143	J. ETCHEVERRY	7H	101.94A	2- 9	-1.55	100.39	65	101.94A	66	65-66
15S 36E 01 311	J.W. SCOTT	7H	67.08	2-16	-2.66	43.60	49	67.08	66	49-66
15S 36E 05 211	J.P. CAUDILL	7H	71.64	2- 9	-0.11	52.73	51	71.64	66	50-66
15S 36E 08 111A	MAMIE BEATTY	7H	63.45	2- 9	-1.91	43.37	50	63.45	66	49-66
15S 36E 14 131	F.O. GRAHAM	7H	57.20	2-15	-0.81	42.38	45	81.47A	54	41-45,52-66
15S 36E 17 111	B.F. AND WALTER ADAMS	7H	66.35	2- 9	-1.85	44.47	50	66.35	66	49-66
15S 36E 20 133	E.B. PARSONS	7H	65.87	2- 9	-1.07	45.25	49	65.87	66	49-66
15S 36E 21 111	U.S. ALEXANDER	7H	68.50	2-15	-1.17	42.55	49	68.50	66	49-66
15S 36E 28 133	J.R. AND BOSS HALE	7H	70.40	2-15	-1.14	44.53	47	70.40	66	46-63,65-66
15S 36E 29 112	G.A. FISHER	7H	68.12	2- 9	-0.73	44.90	48	68.12	66	48-66
15S 36E 30 411	PHYLLIS WILLIAMS	7H	64.07	2- 9	-2.18	46.14	51	64.07	66	49-66
15S 36E 31 311	D.A. PAYTON	7H	64.32	2- 9	-1.00	47.35	48	64.32	66	48-58,60-66
15S 36E 32 323	HOBDY GANN	7H	72.04	2- 9	-1.15	53.60	49	72.04	66	46,49-66
15S 36E 34 111	B.J. HARKRIDER	7H	64.47	2-14	-1.07	44.12	48	64.47	66	48-58,60-66
15S 37E 04 113	W. ANDERSON	7H	59.46	2-16	-1.00	37.10	50	59.46	66	50-66
15S 37E 07 111	D.H. CROCKETT	7H	64.30	2-16	-1.13	46.13	50	64.30	66	50-66
15S 37E 19 311	OTTO DEAN	7H	55.76	2-14		41.09	50	59.73B	64	48-50,52,54-64,66
15S 37E 20 221	J.E. STEELE	7H	60.78	2-14	-1.42	35.30	50	60.78	66	49-66
15S 37E 21 334	ROBERT W. DEAN	7H	64.47A	2-14	-4.47	29.20	45	64.47A	66	42-66
15S 37E 23 112	NELLIE FORT	7H	45.25	2-14	-1.10	35.59	51	45.25	66	51-66
15S 37E 27 111	C.E. RENSHAW	7H	58.42	2-14	0.62	29.38	43	59.04	65	42-44,46-66
15S 37E 29 111	T. WILKS	7H	62.87	2-14	-1.24	39.08	51	62.87	66	51-66
15S 37E 31 132	W.R. DEAN	7H	55.94	2-14	0.45	35.04	50	56.39	65	49-66
15S 37E 33 313	YARBRO	7H	68.30	2-14		35.97	50	68.30	66	50-64,66
15S 38E 10 321	LOWE	7H	41.76	2-16	-0.10	31.84	51	41.76	66	51-66
15S 38E 22 441	TROY C. FORT	7H	40.16	2-11	-1.29	28.72	42	40.16	66	39-53,55-66

Table 6.--WATER LEVELS IN TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, IN FEBRUARY 1966 - Concluded

LOCATION NUMBER	NAME	SOURCE	66 WATER LEVEL	DATE	CHANGE	HIGHEST LEVEL	YR	LOWEST LEVEL	YR	YEARS OF RECORD
15S 38E 35 133	WAITS	7H	49.60	2-11	4.47	37.61	50	54.07	65	50-58,60-66
16S 32E 20 311	TAYLOR AND HOLEMAN	7H	256.44	2- 8	-0.19	256.07	64	257.46	60	59-66
16S 33E 12 133	SKELLY OIL CO.	7H	121.71	2- 8	0.11	121.71	66	121.82	65	65-66
16S 34E 20 233	MARATHON OIL CO.	7H	104.95	2- 8	0.12	104.95	66	105.07	65	65-66
16S 35E 13 112	C.E. HILBURN	7H	53.55	2-14	-0.37	43.38	49	53.55	66	48-66
16S 35E 24 111	T.G. HESTER	7H	55.63	2-14	-0.73	44.09	51	55.63	66	51-66
16S 35E 26 211	HOMER YOUNGBLOOD	7H	43.05	2-14	-0.22	35.37	49	43.05	66	49-66
16S 36E 05 124	I.D. PHILLIPS	7H	63.84	2-14	-0.66	50.09	48	63.84	66	48-66
16S 36E 08 211	DR. H.W. GILLETTE	7H	69.70	2- 8	-0.43	53.67	48	69.70	66	48-66
16S 36E 11 232	LOVINGTON COUNTRY CLB	7H				53.97	48	71.60	64	48-53,56,58-61,63-64
16S 36E 17 133	HOBBS	7H	69.66	2-14	-1.14	53.15	49	69.66	66	49-66
16S 36E 23 241	T.H. MONTEITH	7H	54.95	2-10	2.14	46.68	55	57.09	65	54-58,60-63,65-66
16S 37E 01 311	WILKS	7H	71.76	2-11	-3.78	34.99	50	71.76	66	50-66
16S 37E 02 122	HARADA	7H	70.35	2-11	-2.61	38.33	50	70.35	66	50-66
16S 37E 07 114	BEAL GLEASON	7H	51.12	2-11	-1.20	38.32	50	51.12	66	50-66
16S 37E 11 111	H.J. TAYLOR	7H	70.97	2-11	-0.79	31.93	49	70.97	66	49-66
16S 37E 14 211	GREEN	7H	66.87	2-10	-2.07	39.73	50	66.87	66	50-66
16S 37E 25 111	R.L. DAVIS	7H	53.37	2-11	-1.06	36.87	50	53.37	66	50-66
16S 38E 03 333	STATE OF NEW MEXICO	7H	37.55	2-11	-1.63	24.60	56	37.55	66	53-66
16S 38E 26 113	WOODY@S ACRES INC.	7H	64.10	2-10		51.77	54	64.10	66	54-64,66
16S 38E 27 111	WOODY@S ACRES INC.	7H	67.84	2-10	-3.19	32.89	50	67.84	66	50-66
16S 38E 30 211	MITCHELL	7H				36.82	51	49.28	64	51-64
16S 38E 34 131A	WOODY@S ACRES, INC.	7H	77.90	2-10	-4.66	63.47	59	77.90	66	52,58-66
16S 39E 20 131	GEO. BRADFORD	7H				32.47	48	54.74	63	46,48-63
16S 39E 29 222	SIMS AND HOLDER	7H	71.87	2-10	-1.19	54.85	50	71.87	66	50-58,60-66
17S 33E 25 244	SOUTHWEST POTASH CO.	7H				144.62	64	180.00	61	52-65
17S 34E 35 130	STATE OF N. MEX.	7H	93.35	2-17	-0.82	89.88	53	93.35	66	43-66
17S 35E 35 213	STATE OF N. MEX.	7H	39.92	2- 7	-0.65	37.94	59	39.92	66	43-66
17S 36E 27 131	DOROTHY SCHARBAUER	7H	36.48	2- 7	-0.51	33.05	49	36.48	66	47-66
17S 37E 10 211	S.M. REILAND	7H	48.00	2-10	-0.56	32.87	49	48.00	66	49-66
17S 37E 12 113	LEE STILES ESTATE	7H	63.31C	2-10	-1.75	40.69	50	63.31C	66	50-66
17S 37E 26 333	TIM WOODS	7H	47.44	2-14	-2.17	26.21	43	47.44	66	39-66
17S 37E 34 111	C.G. GOODWIN	7H	51.77	2-14	-2.61	42.13	57	51.77	66	57-66
17S 38E 02 311	W.V. LAWRENCE	7H	61.51	2-10	-2.76	43.65	51	61.51	66	49-66
17S 38E 07 111A	L.R. SEBRINGS	7H	54.93	2-10	-1.10	35.94	52	54.93	66	51-66
17S 38E 08 211	J.J. HANDLEY JR.	7H	61.35	2-10	-1.10	36.46	50	61.35	66	50-57,59-66
17S 38E 24 133	W.V. LAWRENCE	7H	46.41	2-10		41.30	50	46.61	63	50-58,60-64,66
17S 38E 31 311	G.L. BEENE	7H	46.30B	2-14	-2.43	26.71	49	46.30B	66	48-66
17S 38E 34 113	W.E. BUSBY	7H	38.51	2-10		24.78	44	38.51	66	43-66
17S 39E 32 111	KING ACRES	7H	81.23	2-10	-0.51	72.92	50	81.23	66	50-66
18S 34E 22 343	CONOCO OIL CO.	7H	110.27	2- 7	0.20	110.27	66	110.47	65	65-66
18S 35E 17 144	INT MIN AND CHEM CORP	7H	71.95	2- 7	-0.24	69.49	56	71.95	66	53-66
18S 35E 20 214	INTERNATIONAL MIN CHE	7H	72.49	2- 7	-0.10	72.16	61	72.49	66	53-58,60-66
18S 36E 27 111	STATE OF N. MEX.	7H	41.22	2- 7	0.03	38.13	43	42.30	59	42-66
18S 38E 03 313	GEO. MOONEY	7H	44.55	2-10	-1.34	29.68	52	44.55	66	52-66
18S 38E 15 241	BEN RANDOLPH	7H	49.31	2-10	-2.53	27.20	44	49.31	66	43-66
18S 38E 27 113	CITY OF HOBBS	7H	54.72	2-10	-1.14	44.00	55	54.72	66	54-66
18S 38E 30 214	LAVARN MCCOMBS	7H	33.27	2-10	-0.63	30.50	62	33.27	66	61-66
19S 36E 19 113	WILLIE M. EVANS	S9	17.42	2- 7	-0.58	15.06	47	17.93	41	39-66
19S 36E 32 111	F.K. TURNER	S9	17.17	2- 7	0.11	15.15	42	18.60	40	39-66
19S 37E 01 231	HOBBS COUNTRY CLUB	7H	30.48	2-10	0.17	24.75	47	56.58A	53	44-58,60-61,65-66
19S 37E 32 241	O.I. BOYD	S9	12.35	2-10	-0.03	12.01	59	12.55	51	42-66
19S 38E 02 242	S.J. PURVIS	7H	45.97	2-10	0.67	42.01	61	52.04	53	41-66
19S 38E 34 222	J.O. COURSEY	7H	54.33	2-10	-1.10	42.27	49	54.33	66	49-59,61-66
20S 35E 01 221A	H.S. RECORD	S9	26.16	2- 7	-0.40	24.89A	63	26.21A	59	57-66
20S 37E 09 110	W.H. LAUGHLIN	S9				28.21	63	33.38	54	43-65
20S 39E 18 344A	EARL KORNEGAY	7H	46.76	2-10	3.93	46.76	66	50.69B	65	64-66

A. Well being pumped.
B. Well pumped recently.
C. Nearby well being pumped.
M. Measurement uncertain.

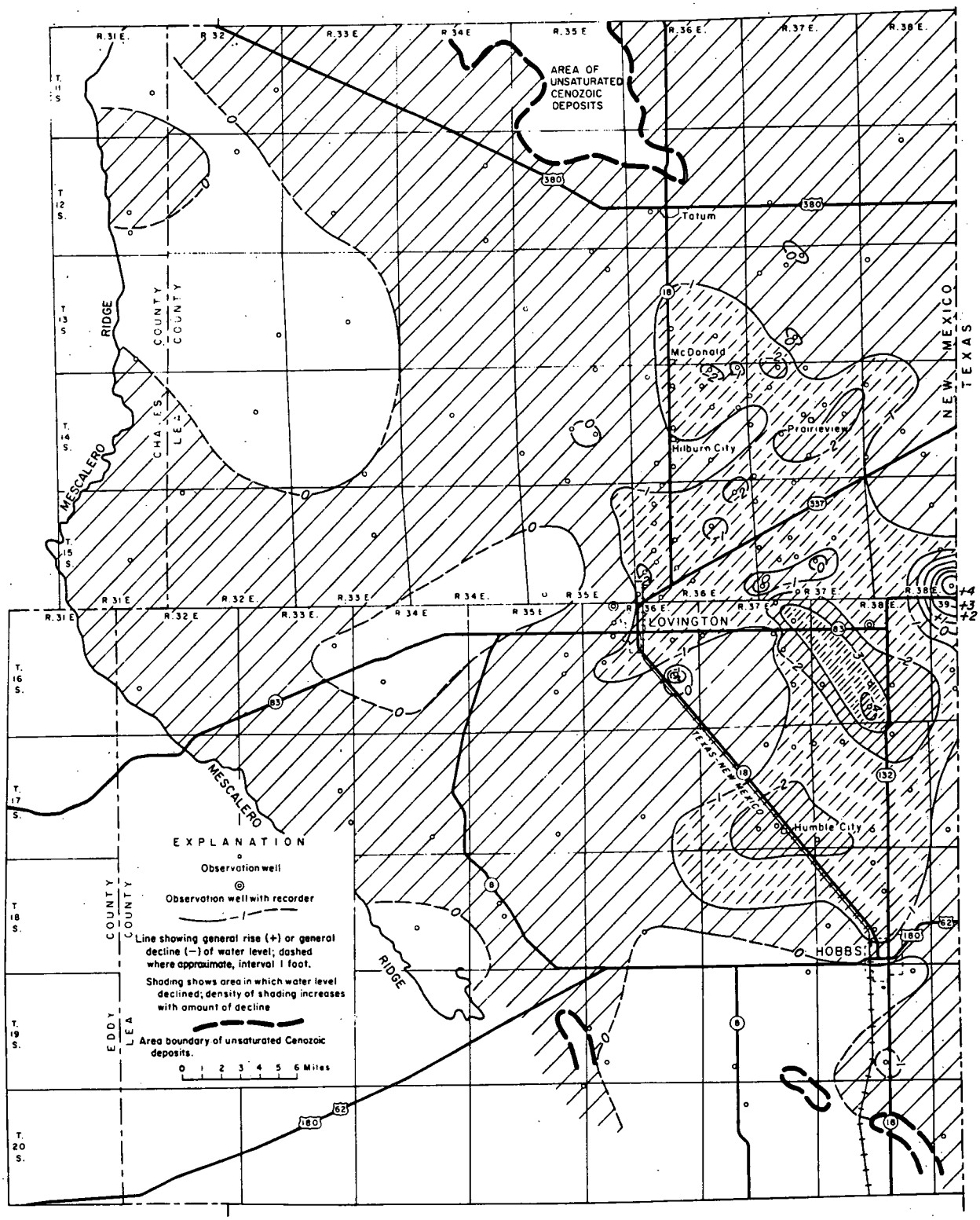


FIGURE 11. -- Change of ground-water level in deposits of Cenozoic age from January 1965 to February 1966 in the Tatum-Lovington Hobbs area, Lea County, N. Mex.

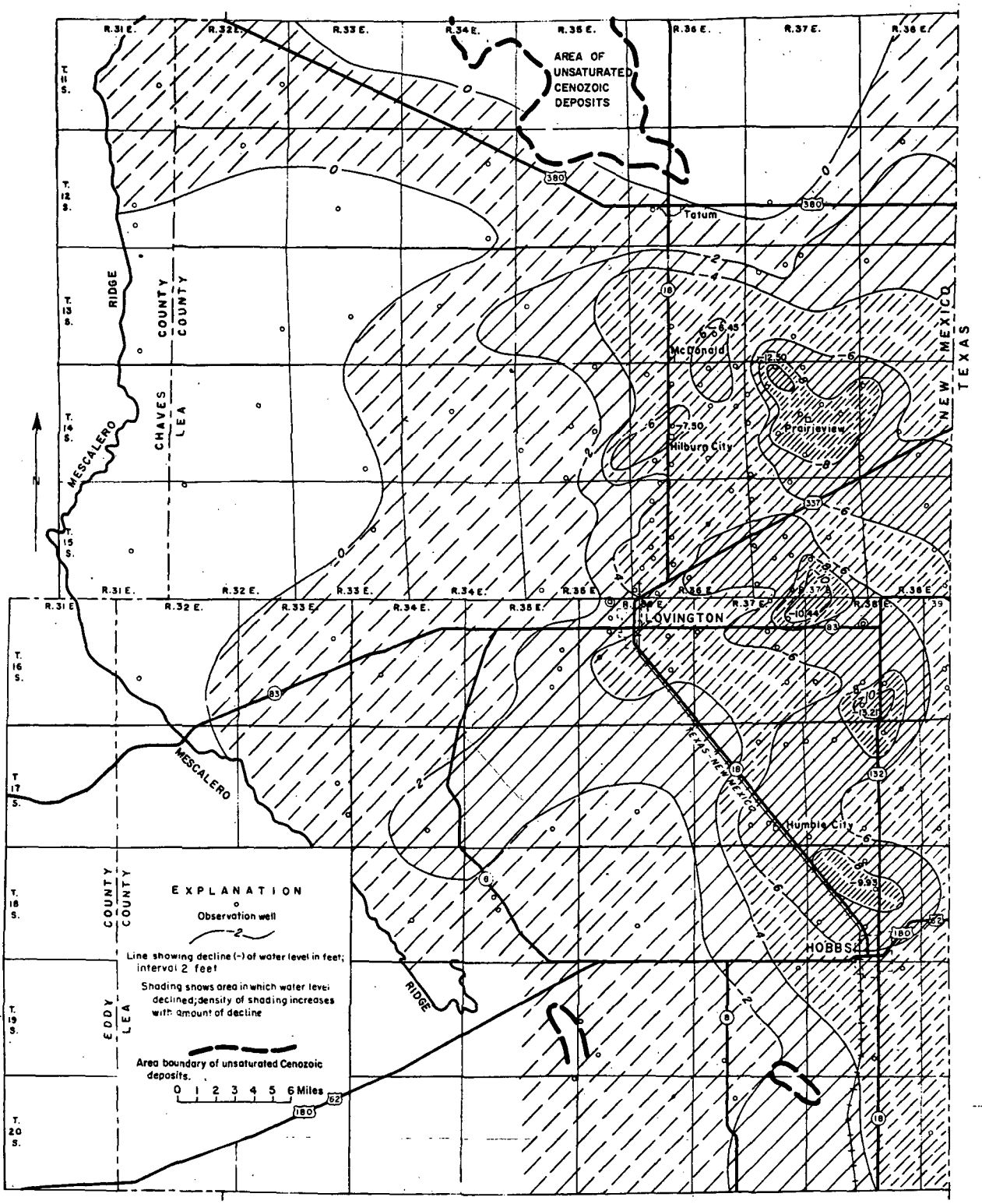


FIGURE 12. -- Change of ground-water level in deposits of Cenozoic age from January 1961 to February 1966 in the Tatum-Lovington-Hobbs area, *Lea County, N. Mex.*

BASIC DATA REPORT

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1966

By
F. E. Busch & J. D. Hudson

United States Geological Survey

1968

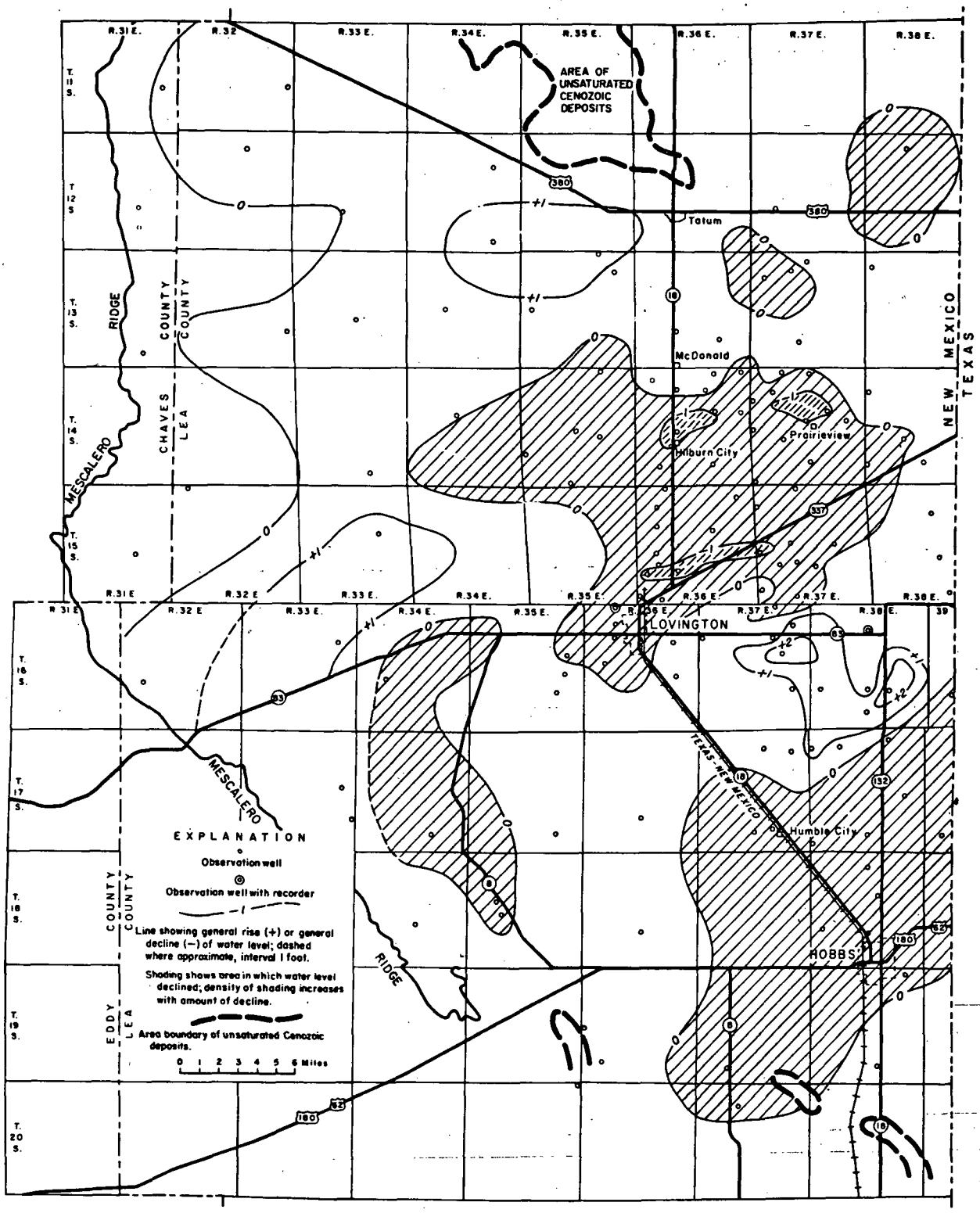


FIGURE 8. -- Change of ground-water level from February 1966 to January 1967 in Tatum-Lovington-Hobbs area, Lea County, N. Mex.

TABLE 6.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY OR FEBRUARY 1967, CHANGE FROM JANUARY OR FEBRUARY 1966 TO JANUARY OR FEBRUARY 1967, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: S9, VALLEY FILLS 7H, OGALLALA FORMATION

LOCATION NUMBER	NAME	SOURCE	67 WATER LEVEL	DATE	CHANGE	HIGHEST LEVEL	YR	LOWEST LEVEL	YR	YEARS OF RECORD
11S 31E 24 311	STATE OF N, MEX,	7H	96,06	1- 4	+0,05	56,06	67	56,18	65	65-67
11S 32E 24 411		7H	67,92	1- 4	-0,37	67,22	65	67,92	67	65-67
11S 33E 25 442	EPPERSON	7H	33,75	1- 4	+0,27	33,96	57	34,02	66	53-67
12S 31E 23 333	F,E, DICKSON	7H	129,82	1- 4	-0,21	129,20	62	130,37	55	53-67
12S 31E 26 333A	F,E, DICKSON	7H	130,39	1- 4	-0,23	130,15	62	130,69	56	53-63,65-67
12S 32E 03 433		7H	49,77	1- 4	-0,44	49,33	66	49,77	67	65-67
12S 33E 28 211	MRS, B,C, ROACH	7H	82,25	1- 4	+0,00	82,12	65	82,25C	66	65-67
12S 34E 11 413	A,D, JONES EST,	7H	32,60	1- 5	+0,23	29,78	50	32,83	66	49-67
12S 34E 35 411	A,D, JONES	7H	37,26	1- 5	+1,84	35,62	49	59,00	62	48-67
12S 36E 29 112	E,D, HOLT	7H				27,71	44	39,32A	51	41-54,56-65
12S 37E 20 343	ALVIN BRECKON	7H	22,20	1- 3	+0,99	22,20	67	26,63	55	54-67
12S 38E 04 312	G,C, COPELAND	7H	40,74	1- 3	+1,34	39,15	43	43,35	41	41-67
13S 31E 35 143		7H	173,55	1- 4	-0,01	173,50	65	173,55	67	65-67
13S 32E 25 214	N,R, GROSS	7H	142,91	1- 4	-0,07	142,73	64	143,34	55	53-60,62-67
13S 33E 22 323		7H	50,34	1- 4	+47,10	50,34	67	97,97	65	65-67
13S 34E 21 111	LEON RICE	7H	63,64	1- 5	+0,74	63,64	67	64,38	66	65-67
13S 35E 02 111A	R,W, DUNCAN	7H	29,28	1- 3	+1,10	26,53	56	30,38	66	53-67
13S 35E 11 222	A,W, LOTT	7H	46,47	1- 3	+0,96	29,14	43	74,29	55	39-67
13S 35E 19 211	ELKAN	7H	49,52	1- 5	+0,92	44,75	46	79,48	40	39-50,52-67
13S 36E 26 324	MRS, IONA MC CLISH	7H	74,13	1- 3	-7,08	42,24	49	74,13	67	49-67
13S 36E 28 113	M,R, ANDERSON	7H	62,77	1- 4	+0,16	44,77	49	62,93	66	49-67
13S 37E 04 422	BRADY LOWE	7H	38,79	1- 3	+0,23	33,83	43	39,66	65	40-41,43-47,49-67
13S 37E 07 234A	W,D, PATTON	7H	36,88B	1- 3	+2,63	35,75A	65	39,51A	66	64-67
13S 37E 09 111	A,P, BRECKON	7H	41,31	1- 3	-0,27	36,33	48	41,31	67	46,48-67
13S 37E 28 413	J,B, AND J,D, DOREN	7H	56,68	1- 3	+0,17	31,70	45	56,96	65	45-67
13S 38E 06 341	J,W, ANDERSON	7H	62,79	1- 3		43,02	45	62,79	67	40-65,67
14S 32E 14 121	RHODA TULK HARRIS	7H				140,28A	63	147,43A	64	59-60,62-66
14S 33E 35 133	AMERADA PETROL, CORP,	7H	100,76	1- 4	+0,02	100,73	64	101,11	61	60-67
14S 34E 16 233	TROY FORT	7H				54,74	65	54,74	65	65
14S 35E 02 112	CLARA ELKAN	7H	44,25	1- 5	-0,11	37,06	56	44,25	67	54,56-67
14S 35E 23 313	PROPST AND ANDERSON	7H	38,40	1- 5	+0,00	37,56	62	40,61	55	54-67
14S 35E 25 241	M,J, WIGGINS	7H	55,86B	1- 5	-0,47	43,30	50	55,86B	67	49-67
14S 35E 30 134	W,A, ANDERSON	7H	49,05	1- 5	-0,13	43,81	62	49,05	67	39-67
14S 35E 33 433	W,A, ANDERSON	7H	45,18	1- 5	-0,10	39,65	52	45,18	67	42-67
14S 36E 01 211	G,T, MANNERS	7H	70,12	1- 3	-0,07	33,80	48	70,12	67	48-52,54-67
14S 36E 02 113	LESLIE ESTEP	7H	80,89	1- 3	+0,20	48,44	50	81,09	66	49-67
14S 36E 06 421	RICHARDSON	7H	60,87	1- 4	-3,57	39,03	44	67,04A	54	39-44,46-55,57-67
14S 36E 09 111	KARL CLAYTON	7H	65,28	1- 3	+0,14	38,36	44	65,42	66	39-67
14S 36E 10 212	KARL CLAYTON	7H	76,75	1- 3	+0,12	47,98	49	76,87	66	49-67
14S 36E 13 211	MRS, MATTIE FIELD	7H	58,32	1- 3	-0,78	35,74	46	58,32	67	42-67
14S 36E 14 112	MRS, MATTIE FIELD	7H	61,20	1- 3	-0,98	40,75	46	61,20	67	39-92,54-67
14S 36E 21 111	MAYO	7H	60,06	1- 4	-1,06	42,69	49	60,06	67	49-67
14S 36E 32 121	E,T, HOWELL	7H				53,58	49	64,75	66	49-66
14S 36E 33 131	BELL	7H	75,78	1- 5	-0,53	56,92	50	75,78	67	49-67
14S 36E 35 111	WRIGHT	7H	67,82	1- 4	+0,02	48,36	49	67,82	67	49-50,52-55,57-67
14S 37E 03 113A	HOBBS AND HEIDEL	7H	66,74	1- 3	-0,41	44,81	52	66,74	67	52-67
14S 37E 05 211	KNOLL	7H	64,36	1- 3	+2,81	31,76	49	67,17	66	49-67
14S 37E 07 311	E,L, HARRISON	7H	68,52	1- 3	-0,17	42,82	49	77,53A	53	49-67
14S 37E 08 113	HARRISON	7H	66,90	1- 3	-0,33	37,93	50	66,90	67	49-67
14S 37E 13 311	W,T, CARTER	7H	77,47	1- 4	+0,05	35,57	49	77,52	66	49-67
14S 37E 14 111	GOFF AND JOHNSON	7H	80,37	1- 4	-1,03	36,12	49	80,37	67	48-49,51-67
14S 37E 16 421	C,A, FORT	7H	62,96	1- 4	-1,00	28,86	43	62,96	67	39-67
14S 37E 19 111	A,B, HENNINGTON	7H	59,62	1- 4	-0,44	41,15	50	59,62	67	49-62,64-67
14S 37E 20 412	G,O, DURHAM	7H	70,34	1- 4	-0,45	33,30	45	70,34	67	39-67
14S 37E 27 311	J,R, FORT ESTATE	7H	67,91	1- 4	-1,48	35,13	48	67,91	67	48-67
14S 37E 31 333	AMANDA MILLER	7H	66,19	1- 4	-1,38	44,80	50	66,19	67	49-67
14S 38E 07 113	HEIDEL AND TAYLOR	7H	70,49	1- 4	+0,42	40,73	50	70,91	66	50-67
14S 38E 21 311	IDA M, COX	7H	53,44	1- 4	-0,44	32,48	49	53,44	67	49-67
14S 38E 27 313	GUY CAVE	7H	57,25	1- 4	+3,42	38,30	51	60,67	66	51-53,55-67
14S 38E 31 111	ALDRIDGE	7H	53,46	1- 4	-1,31	37,45	50	53,46	67	48-67
15S 31E 23 311		7H	254,18	1- 4	-0,32	244,97	54	254,18	67	54-67
15S 32E 06 223	TEXACO	7H	189,13	1- 4	-0,05	188,94	65	189,13	67	65-67
15S 33E 14 143	J, ETCHEVERRY	7H	100,50B	1- 4	+1,44	100,39	65	101,94A	66	65-67
15S 35E 31 422	JOE PRICE	7H				54,14	51	64,69A	54	49-58,60-66
15S 36E 01 311	J,W, SCOTT	7H	67,52	1- 4	-0,44	43,60	49	67,52	67	49-67
15S 36E 05 211	J,P, CAUDILL	7H	71,81	1- 4	-0,17	52,73	51	71,81	67	50-67
15S 36E 08 111A	MAMIE BEATTY	7H	64,17	1- 4	-0,72	43,37	50	64,17	67	49-67
15S 36E 14 131	F,O, GRAHAM	7H	57,72	1- 4	-0,52	42,38	45	81,47A	54	41-45,52-67
15S 36E 17 111	B,F, AND WALTER ADAMS	7H	66,58	1- 4	-0,23	44,47	50	66,58	67	49-67
15S 36E 20 133	E,B, PARSONS	7H	66,62	1- 4	-0,75	45,25	49	66,62	67	49-67
15S 36E 21 111	U,S, ALEXANDER	7H				42,55	49	68,50	66	49-66
15S 36E 28 133	J,R, AND BOSS HALE	7H	71,93	1- 4	-1,53	44,53	47	71,93	67	46-63,65-67
15S 36E 29 112	G,A, FISHER	7H	68,10	1- 5	+0,02	44,90	48	68,12	66	48-67
15S 36E 30 411	PHYLLIS HILLIAMS	7H	62,31	1- 5	+1,76	46,14	51	64,07	66	49-67
15S 36E 31 311	D,A, PAYTON	7H	64,40	1- 5	-0,08	47,35	48	64,40	67	48-58,60-67
15S 36E 32 323	HOBBY GANN	7H	72,56	1- 4	-0,52	53,60	49	72,56	67	46,49-67
15S 36E 34 111	B,J, HARKRIDER	7H				44,12	48	64,47	66	48-58,60-66
15S 37E 04 113	W, ANDERSON	7H	59,69	1- 4	-0,23	37,10	50	59,69	67	50-67
15S 37E 07 111	D,H, CROCKETT	7H	64,60	1- 4	-0,30	46,13	50	64,60	67	50-67
15S 37E 19 311	OTTO DEAN	7H	56,96	1- 4	-1,20	41,09	50	59,73B	64	48-50,52,54-64,66-67
15S 37E 20 221	J,E, STEELE	7H	62,38	1- 4	-1,60	39,30	50	62,38	67	49-67
15S 37E 21 334	ROBERT W, DEAN	7H	63,96	1- 4	+0,51	29,20	45	64,47A	66	42-67
15S 37E 23 112	NELLIE FORT	7H	45,36	1- 4	-0,11	35,99	51	45,36	67	51-67

See footnotes at end of table.

TABLE 6.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY OR FEBRUARY 1967, CHANGE FROM JANUARY OR FEBRUARY 1966 TO JANUARY OR FEBRUARY 1967, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: S9, VALLEY FILL; 7H, OGALLALA FORMATION

LOCATION NUMBER	NAME	SOURCE	67 WATER LEVEL	DATE	CHANGE	HIGHEST LEVEL	YR	LOWEST LEVEL	YR	YEARS OF RECORD
15S 37E 27 111	C.E. RENSHAW	7H	58.4[illegible]	1- 4	-0.04	29.38	43	59.04	65	42-44,46-67
15S 37E 29 111	T. WILKS	7H	63.63	1- 4	-0.76	39.08	51	63.63	67	51-67
15S 37E 31 132	W.R. DEAN	7H	55.65	1- 4	+0.29	35.04	50	56.39	65	49-67
15S 37E 33 313	YARBRO	7H	70.31	1- 4	+2.01	35.97	50	70.31	67	50-64,66-67
15S 38E 10 321	LOWE	7H	41.39	1- 4	+0.37	31.84	51	41.76	66	51-67
15S 38E 22 441	TROY C. FORT	7H	36.75	1- 4	+3.41	28.72	42	40.16	66	39-53,55-67
15S 38E 35 133	WAITS	7H	50.02	1- 4	-0.42	37.61	50	54.07	65	50-58,60-67
16S 32E 20 311	TAYLOR AND HOLEMAN	7H	256.06	1- 4	+0.38	256.06	67	257.46	60	59-67
16S 33E 12 133	SKELLY OIL CO.	7H	121.69	1- 4	+0.02	121.69	67	121.82	65	65-67
16S 34E 20 233	MARATHON OIL CO.	7H	104.98	1- 4	-0.03	104.[illegible]	66	105.07	65	65-67
16S 35E 13 112	C.E. WILBURN	7H	53.48	1- 3	+0.07	43.38	49	53.55	66	48-67
16S 35E 24 111	T.G. WESTER	7H	55.14	1- 3	+0.49	44.09	51	55.63	66	51-67
16S 35E 26 211	HOMER YOUNGBLOOD	7H	42.09	1- 3	+0.96	35.37	49	43.05	66	49-67
16S 36E 05 124	I.D. PHILLIPS	7H	64.08	1- 4	+0.24	50.09	48	64.08	67	48-67
16S 36E 08 211	DR. H.W. GILLETTE	7H	70.45	1- 3	+0.75	53.67	48	70.45	67	48-67
16S 36E 11 232	LOVINGTON COUNTRY CLB	7H	70.23	1- 4		53.97	48	71.60	64	48-53,56,58-61,63-64,67
16S 36E 17 133	HOBBS	7H	70.13	1- 3	-0.47	53.15	49	70.13	67	49-67
16S 36E 23 241	T.H. MONTEITH	7H	54.69	1- 5	+0.26	46.68	55	57.09	65	54-58,60-63,65-67
16S 37E 01 311	WILKS	7H	70.56	1- 4	+1.20	34.99	50	71.76	66	50-67
16S 37E 02 122	HARADA	7H	71.09	1- 4	+0.74	38.33	50	71.09	67	50-67
16S 37E 07 114	BEAL GLEASON	7H	51.91	1- 4	+0.79	38.32	50	51.91	67	50-67
16S 37E 11 111	H.J. TAYLOR	7H	70.22	1- 4	+0.75	31.93	49	70.97	66	49-67
16S 37E 14 211	GREEN	7H	63.51	1- 5	+3.36	39.73	50	66.87	66	50-67
16S 37E 25 111	R.L. DAVIS	7H	52.38	1- 5	+0.99	36.87	50	53.37	66	50-67
16S 38E 03 333	STATE OF NEW MEXICO	7H	37.38	1- 4	+0.17	24.60	56	37.55	66	53-67
16S 38E 26 113	WOODYS ACRES INC.	7H	61.64	1- 5	+2.46	51.77	54	64.10	66	54-64,66-67
16S 38E 27 111	WOODYS ACRES INC.	7H	67.83	1- 5	+0.01	32.89	50	67.84	66	50-67
16S 38E 30 211	MITCHELL	7H	53.24	1- 5		36.82	51	53.24	67	51-64,67
16S 38E 34 131A	WOODYS ACRES INC.	7H	76.05	1- 5	+1.85	63.47	59	77.90	66	52,58-67
16S 39E 20 131	GEO. BRADFORD	7H				32.47	48	54.74	63	46,48-63
16S 39E 29 222	SIMS AND HOLDER	7H	72.03	1- 5	+0.16	54.85	50	72.03	67	50-58,60-67
17S 33E 25 244	SOUTHWEST POTASH CO.	7H	140.07	1- 3		140.07	67	180.00	61	52-65,67
17S 34E 35 130	STATE OF N. MEX.	7H	94.30	1- 3	-0.95	89.88	53	94.30	67	43-67
17S 35E 35 213	STATE OF N. MEX.	7H	39.21	1- 3	+0.71	37.94	59	39.92	66	43-67
17S 36E 27 131	DOROTHY SCHARBAUER	7H	36.09	1- 3	+0.39	33.05	49	36.48	66	47-67
17S 37E 10 211	S.M. REILAND	7H	47.60	1- 5	+0.40	32.87	49	48.00	66	49-67
17S 37E 12 113	LEE STILES ESTATE	7H	62.44	1- 5	+0.87	40.69	50	63.31C	66	50-67
17S 37E 26 333	TIM WOODS	7H	47.64	1- 5	-0.20	26.21	43	47.64	67	39-67
17S 37E 34 111	C.G. GOODWIN	7H	53.31	1- 5	+1.54	42.13	57	53.31	67	57-67
17S 38E 02 311	W.V. LAWRENCE	7H	62.71	1- 5	+1.20	43.65	51	62.71	67	49-67
17S 38E 07 111A	L.R. SEBRINGS	7H	53.69	1- 5	+1.24	35.94	52	54.93	66	51-67
17S 38E 08 211	J.J. HANDLEY JR.	7H	60.43	1- 5	+0.92	36.46	50	61.35	66	50-57,59-67
17S 38E 24 133	W.V. LAWRENCE	7H	46.57	1- 5	+0.16	41.30	50	46.61	63	50-58,60-64,66-67
17S 38E 31 311	G.L. BEENE	7H	46.85	1- 5	+0.55	26.71	49	46.85	67	48-67
17S 38E 34 113	W.E. BUSBY	7H	39.22	1- 5	+0.71	24.78	44	39.22	67	43-67
17S 39E 32 111	KING ACRES	7H	81.67	1- 5	+0.44	72.92	50	81.67	67	50-67
18S 34E 22 343	CONOCO OIL CO.	7H	109.22	1- 3	+1.05	109.22	67	110.47	65	65-67
18S 35E 17 144	INT MIN AND CHEM CORP	7H	72.20	1- 3	+0.25	69.49	56	72.20	67	53-67
18S 35E 20 214	INT MIN AND CHEM CORP	7H	72.58	1- 3	+0.09	72.16	63	72.58	67	53-58,60-67
18S 36E 27 111	STATE OF N. MEX.	7H	40.70	1- 3	+0.52	38.13	43	42.30	59	42-67
18S 38E 03 313	GEO. MOONEY	7H	44.60	1- 5	+0.05	29.68	52	44.60	67	52-67
18S 38E 15 241	BEN RANDOLPH	7H	51.03	1- 5	-1.72	27.20	44	51.03	67	43-67
18S 38E 27 113	CITY OF HOBBS	7H	55.47	1- 5	+0.75	44.00	55	55.47	67	54-67
18S 38E 30 214	LAVARN MCCOMBS	7H	33.56	1- 5	+0.29	30.50	62	33.56	67	61-67
19S 36E 19 113	WILLIE M. EVANS	S9	16.72	1- 3	+0.70	15.06	47	17.93	41	39-67
19S 36E 32 111	F.K. TURNER	S9	16.22	1- 3	+0.95	15.15	42	18.60	40	39-67
19S 37E 01 231	HOBBS COUNTRY CLUB	7H				24.75	47	56.58A	53	44-58,60-61,65-66
19S 37E 32 241	O.I. BOYD	S9	13.16C	1- 3	-0.81	12.01	59	13.16C	67	42-67
19S 38E 02 242	S.J. PURVIS	7H	46.05	1- 5	+0.08	42.01	61	52.04	53	41-67
19S 38E 34 222	J.O. COURSEY	7H	54.18	1- 5	+0.15	42.27	49	54.33	66	49-59,61-67
20S 35E 01 221A	H.S. RECORD	S9	25.80A	1- 3	+0.36	24.89A	63	26.21A	59	57-67
20S 37E 09 110	W.H. LAUGHLIN	S9				28.21	63	33.38	54	43-65
20S 39E 18 344A	EARL KORNEGAY	7H	57.58A	1- 5	+10.82	46.76	66	57.58A	67	64-67

A, B, C, ETC., ADDED TO THE LAST SEGMENT DESIGNATES MORE THAN ONE WELL IN A 10 ACRE TRACT.

A. WELL BEING PUMPED.
B. WELL PUMPED RECENTLY.
C. NEARBY WELL BEING PUMPED.

BASIC DATA REPORT

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1967

By
F. E. Busch & J. D. Hudson

United States Geological Survey

1969

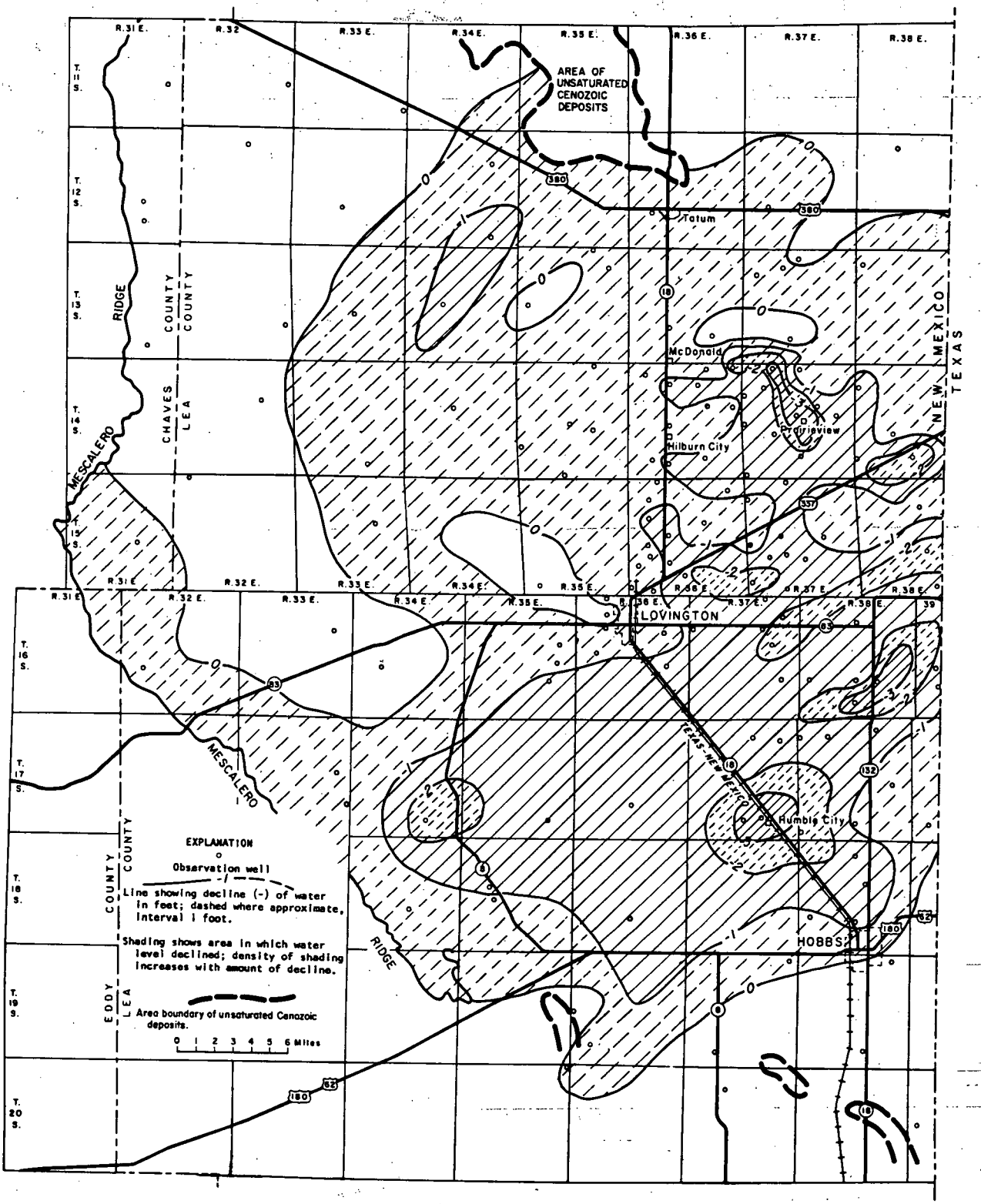


FIGURE 9. -- Change of ground-water level from January 1967 to January 1968 in Tatum-Lovington-Hobbs area, Lea County, N. Mex.

TABLE 7.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1968, CHANGE FROM JANUARY 1967 TO JANUARY 1968, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: 59, VALLEY FILL; 7H, OGALLALA FORMATION

LOCATION NUMBER	NAME	SOURCE	68 WATER LEVEL	DATE	CHANGE	HIGHEST LEVEL	YR	LOWEST LEVEL	YR	YEARS OF RECORD
11S 31E 24 311	STATE OF N. MEX.	7H	56.02	1- 4	+0.04	56.02	68	56.18	65	65-68
11S 32E 24 411		7H	68.18	1- 4	-0.26	67.22	65	68.18	68	65-68
11S 33E 25 442	EPPERSON	7H	33.59	1- 4	+0.16	33.56	67	34.02	66	53-68
12S 31E 23 333	F.E. DICKSON	7H	129.64	1- 4	+0.18	129.20	62	130.37	55	53-68
12S 31E 26 333A	F.E. DICKSON	7H	130.35	1- 4	+0.04	130.15	62	130.69	56	53-63,65-68
12S 32E 03 433		7H	49.72	1- 4	+0.05	49.33	66	49.77	67	65-68
12S 33E 28 211	MRS. B.C. ROACH	7H	82.07C	1- 4	+0.18	82.07C	68	82.25C	66	65-68
12S 34E 11 413	A.D. JONES EST.	7H	32.74	1- 5	-0.14	29.78	50	32.83	66	49-68
12S 34E 35 411	A.D. JONES	7H	38.71	1- 4	-1.45	35.62	49	59.00	62	48-68
12S 36E 29 112	E.D. HOLT	7H				27.71	44	39.32A	51	41-54,56-65
12S 37E 20 343	ALVIN BRECKON	7H	24.70	1- 5	-2.50	22.20	67	24.63	55	54-68
12S 38E 04 312	G.C. COPELAND	7H	40.42	1- 5	+0.32	39.15	43	43.35	41	41-68
13S 31E 35 143		7H	173.42	1- 4	+0.13	173.42	68	173.55	67	65-68
13S 32E 25 214	N.R. GROSS	7H	142.74	1- 4	+0.17	142.73	64	143.34	55	53-60,62-68
13S 33E 22 323		7H	54.63	1- 4	-4.29	50.34	67	97.97	65	65-68
13S 34E 21 111	LEON RICE	7H	64.77	1- 4	-1.13	63.64	67	64.77	68	65-68
13S 35E 02 111A	R.W. DUNCAN	7H	29.52	1- 5	-0.24	24.53	56	30.38	66	53-68
13S 35E 11 222	A.W. LOTT	7H	46.81	1- 5	-0.34	29.14	43	74.29	55	39-68
13S 35E 19 211	ELKAN	7H	48.55	1- 4	+0.97	44.75	46	79.48	40	39-50,52-68
13S 36E 26 324	MRS. IONA MC CLISH	7H	69.25B	1- 3	+4.88	42.24	49	74.13	67	49-68
13S 36E 28 113	M.R. ANDERSON	7H	63.34	1- 5	-0.57	44.77	49	63.34	68	49-68
13S 37E 04 422	BRADY LOWE	7H	37.41	1- 5	+1.38	33.83	43	39.66	65	40-41,43-47,49-68
13S 37E 07 234A	W.D. PATTON	7H	38.92A	1- 5	-2.04	35.75A	65	39.51A	66	64-68
13S 37E 09 111	A.P. BRECKON	7H	41.49A	1- 5	-0.18	36.33	48	41.49A	68	46,48-68
13S 37E 28 413	J.B. AND J.D. DOREN	7H	56.16	1- 3	+0.52	31.70	45	56.96	65	45-68
13S 38E 06 341	J.W. ANDERSON	7H	64.32B	1- 5	-1.53	43.02	45	64.32B	68	40-65,67-68
14S 32E 14 121	RHODA TULK HARRIS	7H				140.28A	63	147.43A	64	59-60,62-66
14S 33E 35 133	AMERADA PETROL. CORP.	7H	100.88	1- 4	-0.12	100.73	64	101.11	61	60-68
14S 34E 16 233	TROY FORT	7H				54.74	65	54.74	65	65
14S 35E 02 112	CLARA ELKAN	7H	44.73	1- 4	-0.48	37.06	56	44.73	68	54,56-68
14S 35E 23 313	PROPST AND ANDERSON	7H	38.73	1- 4	-0.33	37.56	62	40.61	55	54-68
14S 35E 25 241	M.J. WIGGINS	7H	58.92	1- 4	-3.06	43.30	50	58.92	68	49-68
14S 35E 30 134	W.A. ANDERSON	7H	51.43B	1- 4	-2.38	43.81	62	51.43B	68	39-68
14S 35E 33 433	W.A. ANDERSON	7H	45.63	1- 4	-0.45	39.65	52	45.63	68	42-68
14S 36E 01 211	G.T. HANNERS	7H	75.14	1- 3	-5.02	33.80	48	75.14	68	48-52,54-68
14S 36E 02 113	LESLIE ESTEP	7H	80.99	1- 3	-0.10	48.44	50	81.09	66	49-68
14S 36E 06 421	RICHARDSON	7H	58.08	1- 4	+2.79	39.03	44	67.04A	54	39-44,46-55,57-68
14S 36E 09 111	KARL CLAYTON	7H	66.45	1- 5	-1.17	38.36	44	66.45	68	39-68
14S 36E 10 212	KARL CLAYTON	7H	79.12	1- 3	-2.37	47.98	49	79.12	68	49-68
14S 36E 13 211	MRS. MATTIE FIELD	7H				35.74	46	58.32	67	42-67
14S 36E 14 112	MRS. MATTIE FIELD	7H	62.13	1- 3	-0.93	40.75	46	62.13	68	39-52,54-68
14S 36E 21 111	MAYO	7H	59.79	1- 5	+0.27	42.69	49	60.06	67	49-68
14S 36E 32 121	E.T. HOWELL	7H	64.19	1- 4		53.58	49	64.75	66	49-66,68
14S 36E 33 131	BELL	7H	76.80	1- 4	-1.02	56.92	50	76.80	68	49-68
14S 36E 35 111	WRIGHT	7H				48.36	49	67.82	67	49-50,52-55,57-67
14S 37E 03 113A	HOBBS AND HEIDEL	7H				44.81	52	66.74	67	52-67
14S 37E 05 211	KNOLL	7H	67.45	1- 3	-3.09	31.76	49	67.45	68	49-68
14S 37E 07 311	E.L. HARRISON	7H	69.94	1- 3	-1.42	42.82	49	77.53A	53	49-68
14S 37E 08 113	HARBISON	7H				37.93	50	66.90	67	49-67
14S 37E 13 311	W.T. CARTER	7H	78.67	1- 3	-1.20	35.57	49	78.67	68	49-68
14S 37E 14 111	GOFF AND JOHNSON	7H	81.63	1- 3	-1.26	36.12	49	81.63	68	48-49,51-68
14S 37E 16 421	C.A. FORT	7H	64.98	1- 3	-2.02	28.86	43	64.98	68	39-68
14S 37E 19 111	A.B. HENNINGTON	7H	61.33B	1- 3	-1.71	41.15	50	61.33B	68	49-62,64-68
14S 37E 20 412	G.O. DURHAM	7H	71.78B	1- 3	-1.44	33.30	45	71.78B	68	39-68
14S 37E 27 311	J.R. FORT ESTATE	7H	69.72	1- 3	-1.81	35.13	48	69.72	68	48-68
14S 37E 31 333	AMANDA MILLER	7H	68.13	1- 5	-1.94	44.80	50	68.13	68	49-68
14S 38E 07 113	HEIDEL AND TAYLOR	7H	73.12	1- 3	-2.63	40.73	50	73.12	68	50-68
14S 38E 21 311	IDA M. COX	7H	53.65	1- 3	-0.21	32.48	49	53.65	68	49-68
14S 38E 27 313	GUY CAVE	7H	59.72	1- 3	-2.47	38.30	51	60.67	66	51-53,55-68
14S 38E 31 111	ALDRIDGE	7H	55.05	1- 3	-1.59	37.45	50	55.05	68	48-68
15S 31E 23 311		7H	254.78	1- 4	-0.60	244.97	54	254.78	68	54-68
15S 32E 06 223	TEXACO	7H	188.10	1- 4	+1.03	188.10	68	189.13	67	65-68
15S 33E 14 143	J. ETCHEVERRY	7H	100.74A	1- 4	-0.24	100.39	65	101.94A	66	65-68
15S 35E 31 422	JOE PRICE	7H	56.07	1- 2		54.14	51	64.69A	54	49-58,60-66,68
15S 36E 01 311	J.W. SCOTT	7H	69.94	1- 5	-2.42	43.60	49	69.94	68	49-68
15S 36E 05 211	J.P. CAUDILL	7H	72.58	1- 4	-0.77	52.73	51	72.58	68	50-68
15S 36E 08 111A	MAMIE HEATTY	7H	64.59	1- 4	-0.42	43.37	50	64.59	68	49-68
15S 36E 14 131	F.O. GRAHAM	7H	58.06	1- 5	-0.34	42.38	45	81.47A	54	41-45,52-68
15S 36E 17 111	B.F. AND WALTER ADAMS	7H	67.97	1- 4	-1.39	44.47	50	67.97	68	49-68
15S 36E 20 133	E.B. PARSONS	7H	67.54	1- 4	-0.92	45.25	49	67.54	68	49-68
15S 36E 21 111	U.S. ALEXANDER	7H				42.55	49	68.50	66	49-66
15S 36E 28 133	J.R. AND BOSS HALE	7H	73.60	1- 5	-1.67	44.53	47	73.60	68	46-63,65-68
15S 36E 29 112	G.A. FISHER	7H	68.85	1- 4	-0.75	44.90	48	68.85	68	48-68
15S 36E 30 411	PHYLLIS WILLIAMS	7H	63.42	1- 4	-1.11	46.14	51	64.07	66	49-68
15S 36E 31 311	D.A. PAYTON	7H	64.83	1- 4	-0.43	47.35	48	64.83	68	48-58,60-68
15S 36E 32 323	HOBBY GANN	7H	73.53	1- 3	-0.97	53.60	49	73.53	68	46,49-68
15S 36E 34 111	B.J. HARKRIDER	7H	67.11	1- 3		44.12	48	67.11	68	48-58,60-66,68
15S 37E 04 113	W. ANDERSON	7H	60.76	1- 5	-1.07	37.10	50	60.76	68	50-68

SEE FOOTNOTES AT END OF TABLE.

TABLE 7.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1968, CHANGE FROM JANUARY 1967 TO JANUARY 1968, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: S9, VALLEY FILL; 7H, OGALLALA FORMATION

LOCATION NUMBER	NAME	SOURCE	68 WATER LEVEL	DATE	CHANGE	HIGHEST LEVEL	YR	LOWEST LEVEL	YR	YEARS OF RECORD
15S 37E 07 111	D.H. CROCKETT	7H	65.43	1- 5	-0.83	46.13	50	65.43	68	50-68
15S 37E 19 311	OTTO DEAN	7H	57.89	1- 3	-0.93	41.09	50	59.73B	64	48-50,52,54-64,66-68
15S 37E 20 221	J.E. STEELE	7H	64.55D	1- 3	-2.17	35.30	50	64.55D	68	49-68
15S 37E 21 334	ROBERT W. DEAN	7H	70.50	1- 3	-6.54	29.20	45	70.50	68	42-68
15S 37E 23 112	NELLIE FORT	7H	46.04	1- 3	-0.68	35.59	51	46.04	68	51-68
15S 37E 27 111	C.E. RENSHAW	7H	59.66	1- 3	-1.20	29.38	43	59.66	68	42-44,46-68
15S 37E 29 111	T. WILKS	7H	65.30	1- 3	-1.67	39.08	51	65.30	68	51-68
15S 37E 31 132	W.R. DEAN	7H	57.86	1- 3	-2.21	35.04	50	57.86	68	49-68
15S 37E 33 313	YARBRO	7H	68.23	1- 3	+2.08	35.97	50	70.31	67	50-64,66-68
15S 38E 10 321	LOWE	7H	42.17	1- 3	-0.78	31.84	51	42.17	68	51-68
15S 38E 22 441	TROY C. FORT	7H	39.38	1- 3	-2.63	28.72	42	40.16	66	39-53,55-68
15S 38E 35 133	WAITS	7H	51.43	1- 3	-1.41	37.61	50	54.07	65	50-58,60-68
16S 32E 20 311	TAYLOR AND HOLEMAN	7H	256.19	1- 4	-0.13	256.06	67	257.46	60	59-68
16S 33E 12 133	SKELLY OIL CO.	7H	121.55	1- 2	+0.14	121.55	68	121.82	65	65-68
16S 34E 20 233	MARATHON OIL CO.	7H	104.80	1- 2	+0.18	104.80	68	105.07	65	65-68
16S 35E 13 112	C.E. HILBURN	7H	54.01	1- 5	-0.53	43.38	49	54.01	68	48-68
16S 35E 24 111	T.G. HESTER	7H	55.47	1- 5	-0.33	44.09	51	55.63	66	51-68
16S 35E 26 211	HOMER YOUNGBLOOD	7H	43.15	1- 5	-1.06	35.37	49	43.15	68	49-68
16S 36E 05 002	YADON RECORDER	7H	60.32	1- 2		53.93	57	60.32	68	56-66,68
16S 36E 05 124	I.D. PHILLIPS	7H	64.14	1- 2	-0.06	50.09	48	64.14	68	48-68
16S 36E 08 211	DR. H.W. GILLETTE	7H	70.21	1- 5	+0.24	53.67	48	70.45	67	48-68
16S 36E 11 232	LOVINGTON COUNTRY CLB	7H	80.02	1- 5	-9.79	53.97	48	80.02	68	48-53,56,58-61,63-64,67-68
16S 36E 17 133	HOBBS	7H	70.89	1- 5	-0.76	53.15	49	70.89	68	49-68
16S 36E 23 241	T.H. MONTEITH	7H	55.79	1- 2	-1.10	46.68	55	57.09	65	54-58,60-63,65-68
16S 37E 01 311	WILKS	7H	72.77	1- 3	-2.21	34.99	50	72.77	68	50-68
16S 37E 02 122	HARADA	7H	72.32	1- 3	-1.23	38.33	50	72.32	68	50-68
16S 37E 07 114	BEAL GLEASON	7H	53.06	1- 5	-1.15	38.32	50	53.06	68	50-68
16S 37E 11 111	H.J. TAYLOR	7H	70.05	1- 3	+0.17	31.93	49	70.97	66	49-68
16S 37E 14 211	GREEN	7H	68.62	1- 5	-5.11	39.73	50	68.62	68	50-68
16S 37E 25 111	R.L. DAVIS	7H	53.65	1- 5	-1.27	36.87	50	53.65	68	50-68
16S 38E 03 333	STATE OF NEW MEXICO	7H	38.97	1- 5	-1.59	24.60	56	38.97	68	53-68
16S 38E 26 113	WOODYS ACRES INC.	7H	65.32	1- 5	-3.68	51.77	54	65.32	68	54-64,66-68
16S 38E 27 111	WOODYS ACRES INC.	7H	68.65	1- 5	-0.82	32.89	50	68.65	68	50-68
16S 38E 30 211	MITCHELL	7H	53.81	1- 5	-0.57	36.82	51	53.81	68	51-64,67-68
16S 38E 34 131A	WOODYS ACRES INC.	7H	79.56	1- 5	-3.51	63.47	59	79.56	68	52,58-68
16S 39E 20 131	GEO. BRADFORD	7H				32.47	48	54.74	63	46,48-63
16S 39E 29 222	SIMS AND HOLDER	7H	73.25	1- 5	-1.22	54.85	50	73.25	68	50-58,60-68
17S 33E 25 244	SOUTHWEST POTASH CO.	7H				140.07	67	180.00	61	52-65,67
17S 34E 35 130	STATE OF N. MEX.	7H	96.42	1- 2	-2.12	89.88	53	96.42	68	43-68
17S 35E 35 213	STATE OF N. MEX.	7H	40.40	1- 2	-1.19	37.94	59	40.40	68	43-68
17S 36E 27 131	DOROTHY SCHARBAUER	7H	36.95	1- 2	-0.86	33.05	49	36.95	68	47-68
17S 37E 10 211	S.M. REILAND	7H	48.73	1- 5	-1.13	32.87	49	48.73	68	49-68
17S 37E 12 113	LEE STILES ESTATE	7H	63.75	1- 5	-1.31	40.69	50	63.75	68	50-68
17S 37E 26 333	TIM WOODS	7H				26.21	43	47.64	67	39-67
17S 37E 34 111	C.G. GOODWIN	7H	56.57	1- 2	-3.26	42.13	57	56.57	68	57-68
17S 38E 02 311	W.V. LAWRENCE	7H	63.96	1- 5	-1.25	43.65	51	63.96	68	49-68
17S 38E 07 111A	L.R. SEBRINGS	7H	55.03	1- 5	-1.34	35.94	52	55.03	68	51-68
17S 38E 08 211	J.J. HANDLEY JR.	7H	60.87	1- 5	-0.44	34.46	50	61.35	66	50-57,59-68
17S 38E 24 133	W.V. LAWRENCE	7H	47.08	1- 2	-0.51	41.30	50	47.08	68	50-58,60-64,66-68
17S 38E 31 311	G.L. BEENE	7H	49.00	1- 2	-2.15	26.71	49	49.00	68	48-68
17S 38E 34 113	W.E. BUSBY	7H	40.22	1- 5	-1.00	24.78	44	40.22	68	43-68
18S 34E 22 343	CONOCO OIL CO.	7H	109.45	1- 2	-0.23	109.22	67	110.47	65	65-68
18S 35E 17 144	INT MIN AND CHEM CORP	7H	73.28	1- 2	-1.08	69.49	56	73.28	68	53-68
18S 35E 20 214	INT MIN AND CHEM CORP	7H	72.76	1- 2	-0.18	72.16	63	72.76	68	53-58,60-68
18S 36E 27 111	STATE OF N. MEX.	7H	42.43	1- 2	-1.73	38.13	43	42.43	68	42-68
18S 38E 03 313	GEO. MOONEY	7H	46.10	1- 5	-1.50	29.68	52	46.10	68	52-68
18S 38E 15 241	BEN RANDOLPH	7H	52.45	1- 5	-1.42	27.20	44	52.45	68	43-68
18S 38E 27 113	CITY OF HOBBS	7H	56.69	1- 5	-1.22	44.00	55	56.69	68	54-68
18S 38E 30 214	LAVARN MCCOMBS	7H	34.50	1- 5	+0.94	30.50	62	34.50	68	61-68
19S 36E 19 113	WILLIE M. EVANS	S9	18.32	1- 2	+0.40	15.06	47	17.93	41	39-68
19S 36E 32 111	F.K. TURNER	S9	16.78	1- 2	-0.56	15.15	42	18.60	40	39-68
19S 37E 01 231	HOBBS COUNTRY CLUB	7H				24.75	47	56.58A	53	44-58,60-61,65-66
19S 37E 32 241	O.I. BOYD	S9	12.36C	1- 2	+0.80	12.01	59	13.16C	67	42-68
19S 38E 02 242	S.J. PURVIS	7H	45.23	1- 5	+0.82	42.01	61	52.04	53	41-68
19S 38E 34 222	J.O. COURSEY	7H	53.71	1- 2	+0.47	42.27	49	54.33	66	49-59,61-68
20S 35E 01 221A	H.S. RECORD	S9	25.81A	1- 2	-0.01	24.89A	63	26.21A	59	57-68
20S 37E 09 110	W.H. LAUGHLIN	S9				28.21	63	33.38	54	43-65
20S 39E 18 344A	EARL KORNEGAY	7H	50.55B	1- 2	+7.03	46.76	66	57.58A	67	64-68

A, B, C, ETC., ADDED TO THE LAST SEGMENT DESIGNATES MORE THAN ONE WELL IN A 10 ACRE TRACT.

A. WELL BEING PUMPED.
B. WELL PUMPED RECENTLY.
C. NEARBY WELL BEING PUMPED.
D. NEARBY WELL PUMPED RECENTLY.

BASIC DATA REPORT

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1968

By
F. E. Busch & J. D. Hudson

United States Geological Survey

1970

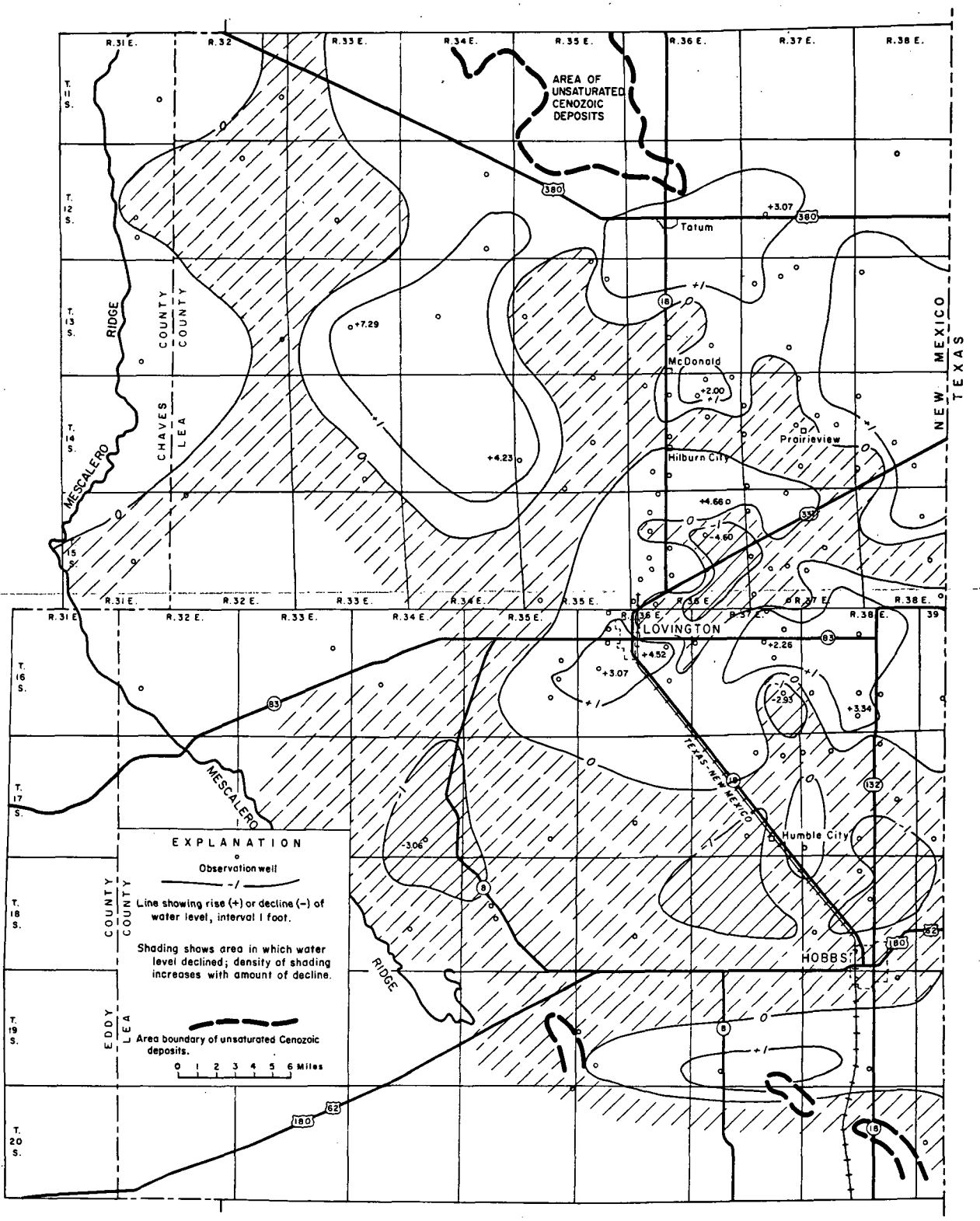


FIGURE 9. -- Change of ground-water level from January 1968 to January 1969 in Tatum-Lovington-Hobbs area, Lea County, N. Mex.

TABLE 7 .--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1969, CHANGE FROM JANUARY 1968 TO JANUARY 1969, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN OR FEB, IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: S9, VALLEY FILL; 7H, OGALLALA FORMATION

LOCATION NUMBER	NAME	SOURCE	69 WATER LEVEL	DATE	CHANGE	HIGHEST LEVEL	YR	LOWEST LEVEL	YR	YEARS OF RECORD
11S 31E 24 311	STATE OF N. MEX.	7H	55.86	1-14	+0.16	55.86	69	56.18	65	65-69
11S 32E 24 411		7H	68.23	1-15	-0.05	67.22	65	68.23	69	65-69
11S 33E 25 442	EPPERSON	7H	33.48	1-17	+0.11	33.48	69	34.02	66	53-69
12S 31E 23 333	F.E. DICKSON	7H	129.69	1-14	-0.05	129.20	62	130.37	55	53-69
12S 31E 26 333A	F.E. DICKSON	7H	130.22	1-14	+0.13	130.15	62	130.69	56	53-63,65-69
12S 32E 03 433		7H	49.82	1-14	-0.10	49.33	66	49.82	69	65-69
12S 33E 28 211	MRS. R.C. ROACH	7H	82.17C	1-17	-0.10	82.07C	68	82.25C	66	65-69
12S 34E 11 413	A.D. JONES EST.	7H	32.67	1-17	+0.07	29.78	50	32.83	66	49-69
12S 34E 35 411	A.D. JONES	7H	37.47	1-17	+1.24	35.62	49	59.00	62	48-69
12S 36E 29 112	E.D. HOLT	7H				27.71	44	39.32A	51	41-54,56-65
12S 37E 20 343	ALVIN BRECKON	7H	21.63	1-15	+3.07	21.63	69	26.63	55	54-69
12S 38E 04 312	G.C. COPELAND	7H	40.64	1-15	-0.22	39.15	43	43.35	41	41-69
13S 31E 35 143		7H	173.24	1-14	+0.18	173.24	69	173.55	67	65-69
13S 32E 25 214	N.R. GROSS	7H	142.80	1-17	-0.06	142.73	64	143.34	55	53-60,62-69
13S 33E 22 323		7H	47.34	1-17	+7.29	47.34	69	97.97	65	65-69
13S 34E 21 111	LEON RICE	7H	62.90	1-17	+1.87	62.90	69	64.77	68	65-69
13S 35E 02 111A	R.W. DUNCAN	7H	29.70	1-15	-0.18	26.53	56	30.38	66	53-69
13S 35E 11 222	A.W. LOTT	7H	45.33	1-15	+1.48	29.14	43	74.29	55	39-69
13S 35E 19 211	ELKAN	7H	48.12	1-17	+0.43	44.75	46	79.48	40	39-50,52-69
13S 36E 26 324	MRS. IONA MC CLISH	7H	69.16	1-16	+0.09	42.24	49	74.13	67	49-69
13S 36E 28 113	M.R. ANDERSON	7H	63.80	1-15	-0.46	44.77	49	63.80	69	49-69
13S 37E 04 422	BRADY LOWE	7H	36.86	1-15	+0.55	33.83	43	39.66	65	40-41,43-47,49-69
13S 37E 07 234A	W.D. PATTON	7H	37.55A	1-15	+1.37	35.75A	65	39.51A	66	64-69
13S 37E 09 111	A.P. BRECKON	7H	41.45A	1-15	+0.04	36.33	48	41.49A	68	46,48-69
13S 37E 28 413	J.B. AND J.D. DOREN	7H	55.61	1-15	+0.55	31.70	45	56.96	65	45-69
13S 38E 06 341	J.W. ANDERSON	7H	62.46B	1-15	+1.86	43.02	45	64.32B	68	40-65,67-69
14S 32E 14 121	RHODA TULK HARRIS	7H				140.28A	63	147.43A	64	59-60,62-66
14S 33E 35 133	AMERADA PETROL. CORP.	7H	101.02	1-17	-0.14	100.73	64	101.11	61	60-69
14S 34E 16 233	TROY FORT	7H				54.74	65	54.74	65	65
14S 35E 02 112	CLARA ELKAN	7H	45.08	1-16	-0.35	37.06	56	45.08	69	54,56-69
14S 35E 23 313	PROPST AND ANDERSON	7H	39.41	1-16	-0.68	37.56	62	40.61	55	54-69
14S 35E 25 241	M.J. WIGGINS	7H	59.05	1-17	-0.13	43.30	50	59.05	69	49-69
14S 35E 30 134	W.A. ANDERSON	7H	47.20	1-16	+4.23	43.81	62	51.43B	68	39-69
14S 35E 33 433	W.A. ANDERSON	7H	45.86	1-16	-0.23	39.65	52	45.86	69	42-69
14S 36E 01 211	G.T. HANNERS	7H	74.45	1-16	+0.69	33.80	48	75.14	68	48-52,54-69
14S 36E 02 113	LESLIE ESTEP	7H	79.78	1-16	+1.21	48.44	50	81.09	66	49-69
14S 36E 06 421	RICHARDSON	7H	60.90	1-16	-2.82	39.03	44	67.04A	54	39-44,46-55,57-69
14S 36E 09 111	KARL CLAYTON	7H	66.09	1-15	+0.36	38.36	44	66.45	68	39-69
14S 36E 10 212	KARL CLAYTON	7H	77.12	1-16	+2.00	47.98	49	79.12	68	49-69
14S 36E 13 211	MRS. MATTIE FIELD	7H				35.74	46	58.32	67	42-67
14S 36E 14 112	MRS. MATTIE FIELD	7H	62.80	1-16	-0.67	40.75	46	62.80	69	39-52,54-69
14S 36E 21 111	MAYO	7H	59.92	1-15	-0.13	42.69	49	60.06	67	49-69
14S 36E 32 121	E.T. HOWELL	7H	63.79	1-15	+0.40	53.58	49	64.75	66	49-66,68-69
14S 36E 33 131	BELL	7H	76.81	1-15	-0.01	56.92	50	76.81	69	49-69
14S 36E 35 111	WRIGHT	7H	68.06	1-16		48.36	49	68.06	69	49-50,52-55,57-67,69
14S 37E 03 113A	HOBBS AND HEIDEL	7H	65.49	1-15		44.81	52	66.74	67	52-67,69
14S 37E 05 211	KNOLL	7H	69.01	1-16	-1.56	31.76	49	69.01	69	49-69
14S 37E 07 311	E.L. HARBISON	7H	69.92	1-16	+0.02	42.82	49	77.53A	53	49-69
14S 37E 08 113	HARRISON	7H	68.17	1-16		37.93	50	68.17	69	49-67,69
14S 37E 13 311	W.T. CARTER	7H	78.40	1-15	+0.27	35.57	49	78.67	68	49-69
14S 37E 14 111	GOFF AND JOHNSON	7H	80.92	1-15	+0.71	36.12	49	81.63	68	48-49,51-69
14S 37E 16 421	C.A. FORT	7H	65.66	1-16	-0.68	28.86	43	65.66	69	39-69
14S 37E 19 111	A.B. HENNINGTON	7H	61.51	1-16	-0.18	41.15	50	61.51	69	49-62,64-69
14S 37E 20 412	G.O. DURHAM	7H				33.30	45	71.78B	68	39-68
14S 37E 27 311	J.R. FORT ESTATE	7H	70.01	1-16	-0.29	35.13	48	70.01	69	48-69
14S 37E 31 333	AMANDA MILLER	7H	67.84	1-16	+0.29	44.80	50	68.13	68	49-69
14S 38E 07 113	HEIDEL AND TAYLOR	7H	71.84	1-15	+1.28	40.73	50	73.12	68	50-69
14S 38E 21 311	IDA M. COX	7H	52.28	1-15	+1.37	32.48	49	53.65	68	49-69
14S 38E 27 313	GUY CAVE	7H	57.90	1-15	+1.82	38.30	51	60.67	66	51-53,55-69
14S 38E 31 111	ALDRIDGE	7H	56.57	1-15	-1.52	37.45	50	56.57	69	48-69
15S 31E 23 311		7H	255.17	1-14	-0.39	244.97	54	255.17	69	54-69
15S 32E 06 223	TEXACO	7H	188.18	1-14	-0.08	188.10	68	189.13	67	65-69
15S 33E 14 143	J. ETCHEVERRY	7H				100.39	65	101.94A	66	65-68
15S 35E 31 422	JOE PRICE	7H	56.27	1-16	-0.20	54.14	51	64.69A	54	49-58,60-66,68-69
15S 36E 01 311	J.W. SCOTT	7H	65.28	1-15	+4.66	43.60	49	69.94	68	49-69
15S 36E 05 211	J.P. CAUDILL	7H	71.91	1-17	+0.67	52.73	51	72.58	68	50-69
15S 36E 08 111A	MAMIE BEATTY	7H	63.22	1-17	+1.37	43.37	50	64.59	68	49-69
15S 36E 14 131	F.O. GRAHAM	7H	62.66	1-15	-4.60	42.38	45	81.47A	54	41-45,52-69
15S 36E 17 111	B.F. AND WALTER ADAMS	7H	68.45	1-17	-0.48	44.47	50	68.45	69	49-69
15S 36E 20 133	E.B. PARSONS	7H	67.21	1-17	+0.33	45.25	49	67.54	68	49-69
15S 36E 21 111	U.S. ALEXANDER	7H				42.55	49	68.50	66	49-66
15S 36E 28 133	J.R. AND BOSS HALE	7H	72.73	1-15	+0.87	44.53	47	73.60	68	46-63,65-69
15S 36E 29 112	G.A. FISHER	7H	68.32	1-17	+0.53	44.90	48	68.85	68	48-69
15S 36E 30 411	PHYLLIS WILLIAMS	7H	63.40	1-17	+0.02	46.14	51	64.07	66	49-69
15S 36E 31 311	O.A. PAYTON	7H	64.61	1-17	+0.22	47.35	48	64.83	68	48-58,60-69
15S 36E 32 323	HOBBY GANN	7H	74.08	1-15	-0.55	53.60	49	74.08	69	46,49-69
15S 36E 34 111	B.J. HARKRIDER	7H	68.52	1-15	-1.41	44.12	48	68.52	69	48-58,60-66,68-69

SEE FOOTNOTES AT END OF TABLE.

TABLE 7.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1969, CHANGE FROM JANUARY 1968 TO JANUARY 1969, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN OR FEB, IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: S9, VALLEY FILL; 7H, OGALLALA FORMATION

LOCATION NUMBER	NAME	SOURCE	69 WATER LEVEL	DATE	CHANGE	HIGHEST LEVEL	YR	LOWEST LEVEL	YR	YEARS OF RECORD
15S 37E 04 113	W. ANDERSON	7H	60.48	1-16	+0.28	37.10	50	60.76	68	50-69
15S 37E 07 111	D.H. CROCKETT	7H	66.01	1-16	-0.58	46.13	50	66.01	69	50-69
15S 37E 19 311	OTTO DEAN	7H	59.05	1-15	-1.16	41.09	50	59.73B	64	48-50,52,54-64,66-69
15S 37E 20 221	J.E. STEELE	7H	64.62	1-15	-0.07	35.30	50	64.62	69	49-69
15S 37E 21 334	ROBERT W. DEAN	7H				29.20	45	70.50	68	42-68
15S 37E 23 112	NELLIE FORT	7H	46.67	1-15	-0.63	35.59	51	46.67	69	51-69
15S 37E 27 111	C.E. RENSHAW	7H	58.82	1-15	+0.84	29.38	43	59.66	68	42-44,46-69
15S 37E 29 111	T. WILKS	7H	65.70	1-15	-0.40	39.08	51	65.70	69	51-69
15S 37E 31 132	W.R. DEAN	7H	58.41	1-15	-0.55	35.04	50	58.41	69	49-69
15S 37E 33 313	YARBRO	7H	69.68	1-16	-1.45	35.97	50	70.31	67	50-64,66-69
15S 38E 10 321	LOWE	7H	40.87	1-15	+1.30	31.84	51	42.17	68	51-69
15S 38E 22 441	TROY C. FORT	7H	39.99	1-15	-0.61	28.72	42	40.16	66	39-53,55-69
15S 38E 35 133	WAITS	7H	51.19	1-15	+0.24	37.61	50	54.07	65	50-58,60-69
16S 32E 20 311	TAYLOR AND HOLEMAN	7H	256.42	1-14	-0.23	256.06	67	257.46	60	59-69
16S 33E 12 133	SKELLY OIL CO.	7H	121.58	1-14	-0.03	121.55	68	121.82	65	65-69
16S 34E 20 233	MARATHON OIL CO.	7H	104.84	1-14	-0.04	104.80	68	105.07	65	65-69
16S 35E 13 112	C.E. HILBURN	7H	53.28	1-16	+0.73	43.38	49	54.01	68	48-69
16S 35E 24 111	T.G. HESTER	7H	53.71	1-16	+1.76	44.09	51	55.63	66	51-69
16S 35E 26 211	HOMER YOUNGBLOOD	7H	42.53	1-16	+0.62	35.37	49	43.15	68	49-69
16S 36E 05 002	YADON RECORDER	7H	59.55	1-16	+0.77	53.93	57	60.32	68	56-66,68-69
16S 36E 05 124	I.D. PHILLIPS	7H	63.40	1-16	+0.74	50.09	48	64.14	68	48-69
16S 36E 08 211	DR. H.W. GILLETTE	7H	68.86	1-16	+1.35	53.67	48	70.45	67	48-69
16S 36E 11 232	LOVINGTON COUNTRY CLB	7H	75.50	1-16	+4.52	53.97	48	80.02	68	48-53,56,58-61,63-64,67-69
16S 36E 17 133	HOBBS	7H	67.82	1-16	+3.07	53.15	49	70.89	68	49-69
16S 36E 23 241	T.H. MONTEITH	7H	55.71	1-17	+0.08	46.68	55	57.09	65	54-58,60-63,65-69
16S 37E 01 311	WILKS	7H	71.32	1-16	+1.45	34.99	50	72.77	68	50-69
16S 37E 02 122	HARADA	7H	70.91	1-16	+1.41	38.33	50	72.32	68	50-69
16S 37E 07 114	BEAL GLEASON	7H	53.57	1-16	-0.51	38.32	50	53.57	69	50-69
16S 37E 11 111	H.J. TAYLOR	7H	67.79	1-16	+2.26	31.93	49	70.97	66	49-69
16S 37E 14 211	GREEN	7H	67.57	1-16	+1.05	39.73	50	68.62	68	50-69
16S 37E 25 111	R.L. DAVIS	7H	56.58	1-16	-2.93	36.87	50	56.58	69	50-69
16S 38E 03 333	STATE OF NEW MEXICO	7H	37.96	1-16	+1.01	24.60	56	38.97	68	53-69
16S 38E 26 113	WOODYS ACRES INC.	7H	65.23	1-16	+0.09	51.77	54	65.32	68	54-64,66-69
16S 38E 27 111	WOODYS ACRES INC.	7H	66.07	1-16	+2.58	32.89	50	68.65	68	50-69
16S 38E 30 211	MITCHELL	7H	53.71	1-16	+0.10	36.82	51	53.81	68	51-64,67-69
16S 38E 34 131A	WOODYS ACRES INC.	7H	76.22	1-16	+3.34	63.47	59	79.56	68	52,58-69
16S 39E 20 131	GEO. BRADFORD	7H				32.47	48	54.74	63	46,48-63
16S 39E 29 222	SIMS AND HOLDER	7H	72.95	1-16	+0.30	54.85	50	73.25	68	50-58,60-69
17S 33E 25 244	SOUTHWEST POTASH CO.	7H				140.07	67	180.00	61	52-65,67
17S 34E 35 130	STATE OF N. MEX.	7H	99.48	1-14	-3.06	89.88	53	99.48	69	43-69
17S 35E 35 213	STATE OF N. MEX.	7H	40.86	1-14	-0.46	37.94	59	40.86	69	43-69
17S 36E 27 131	DOROTHY SCHARBAUER	7H	37.32	1-14	-0.37	33.05	49	37.32	69	47-69
17S 37E 10 211	S.M. REILAND	7H	48.16	1-16	+0.57	32.87	49	48.73	68	49-69
17S 37E 12 113	LEE STILES ESTATE	7H	64.26	1-16	-0.51	40.69	50	64.26	69	50-69
17S 37E 26 333	TIM WOODS	7H				26.21	43	47.64	67	39-67
17S 37E 34 111	C.G. GOODWIN	7H	58.26	1-16	-1.69	42.13	57	58.26	69	57-69
17S 38E 02 311	W.V. LAWRENCE	7H	64.89	1-16	-0.93	43.65	51	64.89	69	49-69
17S 38E 07 111A	L.R. SEBRINGS	7H	55.06	1-16	-0.03	35.94	52	55.06	69	51-69
17S 38E 08 211	J.J. HANDLEY JR.	7H	60.88	1-16	-0.01	36.46	50	61.35	66	50-57,59-69
17S 38E 24 133	W.V. LAWRENCE	7H	47.72	1-17	-0.64	41.30	50	47.72	69	50-58,60-64,66-69
17S 38E 31 311	G.L. BEENE	7H	48.63	1-16	+0.37	26.71	49	49.00	68	48-69
17S 38E 34 113	W.E. BUSBY	7H	41.53	1-16	-1.31	24.78	44	41.53	69	43-69
18S 34E 22 343	CONOCO OIL CO.	7H	109.84	1-14	-0.39	109.22	67	110.47	65	65-69
18S 35E 17 144	INT MIN AND CHEM CORP	7H	74.16	1-14	-0.88	69.49	56	74.16	69	53-69
18S 35E 20 214	INT MIN AND CHEM CORP	7H	73.00	1-14	-0.24	72.16	63	73.00	69	53-58,60-69
18S 36E 27 111	STATE OF N. MEX.	7H	43.18	1-14	-0.75	38.13	43	43.18	69	42-69
18S 38E 03 313	GEO. MOONEY	7H	46.69	1-16	-0.59	29.68	52	46.69	69	52-69
18S 38E 15 241	BEN RANDOLPH	7H	53.56	1-14	-1.11	27.20	44	53.56	69	43-69
18S 38E 27 113	CITY OF HOBBS	7H				44.00	55	56.69	68	54-68
18S 38E 30 214	LAVARN MCCOMAS	7H	35.42	1-14	-0.92	30.50	62	35.42	69	61-69
19S 36E 19 113	WILLIE M. EVANS	S9	16.39	1-14	-0.07	15.06	47	17.93	41	39-69
19S 36E 32 111	F.K. TURNER	S9	16.68	1-14	+0.10	15.15	42	18.60	40	39-69
19S 37E 01 231	HOBBS COUNTRY CLUB	7H				24.75	47	54.58A	53	44-58,60-61,65-66
19S 37E 32 241	O.I. BOYD	S9	10.94	1-17	+1.42	10.94	69	13.16C	67	42-69
19S 38E 02 242	S.J. PURVIS	7H	45.70	1-14	-0.47	42.01	61	52.04	53	41-69
19S 38E 34 222	J.O. COURSEY	7H	52.90	1-14	+0.81	42.27	49	54.33	66	49-59,61-69
20S 35E 01 221A	H.S. RECORD	S9	25.97	1-14	-0.16	24.89A	63	26.21A	59	57-69
20S 37E 09 110	W.H. LAUGHLIN	S9				28.21	63	33.38	54	43-65
20S 39E 18 344A	EARL KORNEGAY	7H	59.75A	1-14	-9.20	46.76	66	59.75A	69	64-69

A, B OR C ADDED TO THE LAST SEGMENT DESIGNATES MORE THAN ONE WELL IN A TEN ACRE TRACT

A - WELL BEING PUMPED
B - WELL PUMPED RECENTLY
C - NEARBY WELL PUMPING

BASIC DATA REPORT

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1969

By
J. D. Hudson

United States Geological Survey

1971

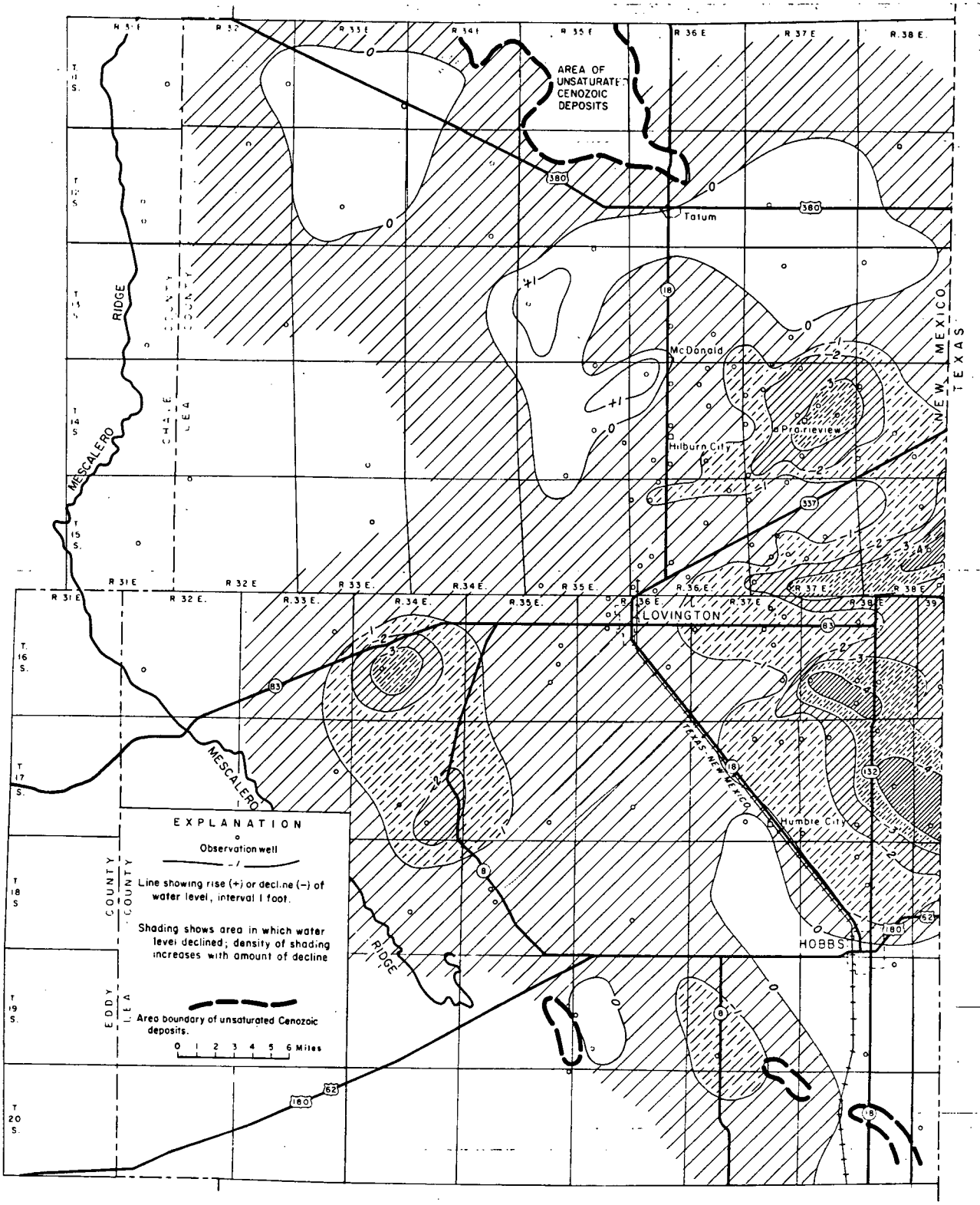


FIGURE 9. -- Change of ground-water level from January 1969 to January 1970 in Tatum-Lovington-Hobbs area, Lea County, N. Mex.

TABLE 7 .--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1970, CHANGE FROM JANUARY 1969 TO JANUARY 1970, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: VLFL, VALLEY FILL; OGLL, OGALLALA

LOCATION NUMBER	OWNER	SOURCE	70 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
11S 31E 24 311	STATE OF N. MEX.	OGLL	-55.74	1-06	+.12	-55.74	70	-56.18	65	65-70
11S 32E 24 411	UNKNOWN	OGLL	-67.80	1-06	+.43	-67.22	65	-68.23	69	65-70
11S 33E 25 442	EPPERSON	OGLL	-33.40	1-06	+.08	-33.40	70	-34.02	66	53-70
12S 31E 23 333	F.E. DICKSON	OGLL	-129.69	1-06	0.00	-129.20	62	-130.37	55	53-70
12S 31E 26 333A	F.E. DICKSON	OGLL	-130.43	1-06	-.21	-130.15	62	-130.69	56	53-63,65-70
12S 32E 03 433	UNKNOWN	OGLL	-50.44	1-06	-.62	-49.33	66	-50.44	70	65-70
12S 33E 28 211	MRS. R.C. ROACH	OGLL	-82.01	1-06	+.16	-82.01	70	-82.25C	66	65-70
12S 34E 11 413	A.D. JONES EST.	OGLL	-32.95	1-07	-.28	-29.78	50	-32.95	70	49-70
12S 34E 35 411	A.D. JONES	OGLL	-37.63	1-07	-.16	-35.62	49	-59.00	62	48-70
12S 37E 20 343	ALVIN BRECKON	OGLL	-21.14	1-07	+.49	-21.14	70	-26.63	55	54-70
12S 38E 04 312	G.C. COPELAND	OGLL	-40.91	1-07	-.27	-39.15	43	-43.35	41	41-70
13S 31E 35 143	UNKNOWN	OGLL	-174.37	1-06	-1.13	-173.24	69	-174.37	70	65-70
13S 32E 25 214	N.R. GROSS	OGLL	-142.91	1-06	-.11	-142.73	64	-143.34	55	53-60,62-70
13S 35E 02 111A	R.W. DUNCAN	OGLL	-29.27	1-07	+.43	-26.53	56	-30.38	66	53-70
13S 35E 19 211	ELKAN	OGLL	-47.09	1-07	+1.03	-44.75	46	-79.48	40	39-50,52-70
13S 36E 26 324	MRS. IONA MC CLISH	OGLL	-70.05	1-07	-.89	-42.24	49	-74.13	67	49-70
13S 36E 28 113	M.R. ANDERSON	OGLL	-64.03	1-07	-.23	-44.77	49	-64.03	70	49-70
13S 37E 09 111	A.P. BRECKON	OGLL	-40.68	1-07	+.77	-36.33	48	-41.49	68	46,48-70
13S 37E 28 413	J.B. AND J.D. DOREN	OGLL	-55.66	1-07	-.05	-31.70	45	-56.96	65	45-70
13S 38E 06 341	J.W. ANDERSON	OGLL	-59.83	1-07	+2.63	-43.02	45	-64.32A	68	40-65,67-70
14S 33E 35 133	AMERADA PETROL. CORP.	OGLL	-101.10	1-06	-.08	-100.73	64	-101.11	61	60-70
14S 35E 02 112	CLARA ELKAN	OGLL	-45.25	1-07	-.17	-37.06	56	-45.25	70	54,56-70
14S 35E 23 313	PROPST AND ANDERSON	OGLL	-39.37	1-07	+.04	-37.56	62	-40.61	55	54-70
14S 35E 25 241	M.J. WIGGINS	OGLL	-59.41	1-06	-.36	-43.30	50	-59.41	70	49-70
14S 35E 33 433	W.A. ANDERSON	OGLL	-45.49	1-07	+.37	-39.65	52	-45.86	69	42-70
14S 36E 01 211	G.T. HANNERS	OGLL	-76.78	1-07	-2.33	-33.80	48	-76.78	70	48-52,54-70
14S 36E 02 113	LESLIE ESTEP	OGLL	-80.26	1-07	-.48	-48.44	50	-81.09	66	49-70
14S 36E 06 421	RICHARDSON	OGLL	-58.43	1-07	+2.47	-39.03	44	-67.04A	54	39-44,46-55,57-70
14S 36E 09 111	KARL CLAYTON	OGLL	-66.56	1-07	-.47	-38.36	44	-66.56	70	39-70
14S 36E 10 212	KARL CLAYTON	OGLL	-77.74	1-07	-.62	-47.98	49	-79.12	68	49-70
14S 36E 14 112	MRS. MATTIE FIELD	OGLL	-63.56	1-07	-.76	-40.75	46	-63.56	70	39-52,54-70
14S 36E 21 111	MAYO	OGLL	-60.22	1-07	-.30	-42.69	49	-60.22	70	49-70
14S 36E 32 121	E.T. HOWELL	OGLL	-64.63	1-08	-.84	-53.58	49	-64.75	66	49-66,68-70
14S 36E 33 131	BELL	OGLL	-77.56	1-08	-.75	-56.92	50	-77.56	70	49-70
14S 36E 35 111	WRIGHT	OGLL	-69.70	1-08	-1.64	-48.36	49	-69.70	70	49-50,52-55,57-67,69-7(
14S 37E 03 113A	HOBBS AND HEIDEL	OGLL	-68.35	1-07	-2.86	-44.81	52	-68.35	70	52-67,69-70
14S 37E 05 211	KNOLL	OGLL	-69.22	1-07	-.21	-31.76	49	-69.22	70	49-70
14S 37E 07 311	E.L. HARRISON	OGLL	-71.48	1-08	-1.56	-42.82	49	-77.53A	53	49-70
14S 37E 08 113	HARRISON	OGLL	-70.12	1-08	-1.95	-37.93	50	-70.12	70	49-70
14S 37E 13 311	W.T. CARTER	OGLL	-81.87	1-07	-3.47	-35.57	49	-81.87	70	49-70
14S 37E 14 111	GOFF AND JOHNSON	OGLL	-84.09	1-07	-3.17	-36.12	49	-84.09	70	48-49,51-70
14S 37E 16 421	C.A. FORT	OGLL	-66.06	1-08	-.48	-28.86	43	-66.06	70	39-70
14S 37E 19 111	A.B. HENNINGTON	OGLL	-62.04	1-08	-.53	-41.15	50	-62.04	70	49-62,64-70
14S 37E 20 412	G.O. DURHAM	OGLL	-73.31	1-08		-33.30	45	-73.31	70	39-68,70
14S 37E 27 311	J.R. FORT ESTATE	OGLL	-72.99	1-08	-2.98	-35.13	48	-72.99	70	48-70
14S 37E 31 333	AMANDA MILLER	OGLL	-69.79	1-08	-1.95	-44.80	50	-69.79	70	49-70
14S 38E 07 113	HEIDEL AND TAYLOR	OGLL	-74.76	1-07	-2.92	-40.73	50	-74.76	70	50-70
14S 38E 21 311	IDA M. COX	OGLL	-53.98	1-07	-1.70	-32.48	49	-53.98	70	49-70
14S 38E 27 313	GUY CAVE	OGLL	-59.50	1-07	-1.60	-38.30	51	-60.67	66	51-53,55-70
14S 38E 31 111	ALDRIDGE	OGLL	-58.31	1-07	-1.74	-37.45	50	-58.31	70	48-70
15S 31E 23 311	UNKNOWN	OGLL	-254.87	1-05	+.30	-244.97	54	-255.17	69	54-70
15S 32E 06 223	TEXACO	OGLL	-188.71	1-05	-.53	-188.10	68	-189.13	67	65-70
15S 33E 14 143	J. ETCHEVERRY	OGLL	-100.19	1-06		-100.19	70	-101.94A	66	65-68,70
15S 35E 31 422	JOE PRICE	OGLL	-56.58	1-05	-.31	-54.14	51	-64.69A	54	49-58,60-66,68-70
15S 36E 01 311	J.W. SCOTT	OGLL	-66.51	1-08	-1.23	-43.60	49	-69.94	68	49-70
15S 36E 05 211	J.P. CAUDILL	OGLL	-72.54	1-08	-.63	-52.73	51	-72.58	68	50-70
15S 36E 07 111	UNKNOWN	OGLL	-66.82	1-07		-66.82	70	-66.82	70	70
15S 36E 08 111A	MAMIE BEATTY	OGLL	-64.28	1-08	-1.06	-43.37	50	-64.59	68	49-70
15S 36E 14 131	F.O. GRAHAM	OGLL	-59.33	1-08	+3.33	-42.38	45	-81.47A	54	41-45,52-70
15S 36E 20 133	E.B. PARSONS	OGLL	-67.48	1-08	-.27	-45.25	49	-67.54	68	49-70
15S 36E 28 133	J.R. AND ROSS HALE	OGLL	-74.08	1-06	-1.35	-44.53	47	-74.08	70	46-63,65-70
15S 36E 29 112	G.A. FISHER	OGLL	-69.69	1-08	-1.37	-44.90	48	-69.69	70	48-70
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-63.96	1-07	-.56	-46.14	51	-64.07	66	49-70
15S 36E 31 311	O.A. PAYTON	OGLL	-64.95	1-06	-.34	-47.35	48	-64.95	70	48-58,60-70
15S 36E 32 322	HOBDY GANN	OGLL	-74.94	1-06	-.86	-53.60	49	-74.94	70	46,49-70
15S 36E 34 111	B.J. HARKRIDER	OGLL	-69.40	1-07	-.88	-44.12	48	-69.40	70	48-58,60-66,68-70
15S 37E 04 113	W. ANDERSON	OGLL	-60.01	1-08	+.47	-37.10	50	-60.76	68	50-70
15S 37E 07 111	D.H. CROCKETT	OGLL	-66.65	1-08	-.64	-46.13	50	-66.65	70	50-70
15S 37E 19 311	OTTO DEAN	OGLL	-59.36	1-07	-.31	-41.09	50	-59.73B	64	48-50,52,54-64,66-70
15S 37E 20 221	J.E. STEELE	OGLL	-65.75	1-07	-1.13	-35.30	50	-65.75	70	49-70
15S 37E 21 334	ROBERT W. DEAN	OGLL	-66.55	1-07		-29.20	45	-70.50	68	42-68,70
15S 37E 23 112	NELLIE FORT	OGLL	-47.50	1-07	-.83	-35.59	51	-47.50	70	51-70
15S 37E 27 111	C.E. RENSHAW	OGLL	-59.99	1-07	-1.17	-29.38	43	-59.99	70	42-44,46-70
15S 37E 29 111	T. WILKS	OGLL	-66.61	1-07	-.91	-39.08	51	-66.61	70	51-70
15S 37E 31 132	W.R. DEAN	OGLL	-61.19	1-07	-2.78	-35.04	50	-61.19	70	49-70
15S 37E 33 313	YARBRO	OGLL	-72.70	1-07	-3.02	-35.97	50	-72.70	70	50-64,66-70
15S 38E 10 321	LOWE	OGLL	-42.53	1-07	-1.66	-31.84	51	-42.53	70	51-70
15S 38E 22 441	TROY C. FORT	OGLL	-44.58	1-07	-4.59	-28.72	42	-44.58	70	39-53,55-70
15S 38E 35 133	WAITS	OGLL	-53.89	1-07	-2.70	-37.61	50	-54.07	65	50-58,60-70
16S 32E 20 311	TAYLOR AND HOLEMAN	OGLL	-256.66	1-05	-.24	-256.06	67	-257.46	60	59-70

SEE FOOTNOTES AT END OF TABLE.

TABLE 7.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1970, CHANGE FROM JANUARY 1969 TO JANUARY 1970, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: VLFL, VALLEY FILL; OGLL, OGALLALA

LOCATION NUMBER	OWNER	SOURCE	70 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
16S 33E 12 133	SKELLY OIL CO.	OGLL	-121.80	1-05	-.22	-121.55	68	-121.82	65	65-70
16S 34E 20 233	MARATHON OIL CO.	OGLL	-108.54	1-05	-3.70	-104.80	68	-108.54	70	65-70
16S 35E 13 112	C.E. HILBURN	OGLL	-52.90	1-05	+.38	-43.38	49	-54.01	68	48-70
16S 35E 24 111	T.G. HESTER	OGLL	-53.73	1-05	-.02	-44.09	51	-55.63	66	51-70
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-42.55	1-05	-.02	-35.37	49	-43.15	68	49-70
16S 36E 05 [illegible]	YADON RECORDER	OGLL	-59.63	1-05	-.08	-53.93	57	-60.32	68	56-70
16S 36E 0[illegible] 124	I.D. PHILLIPS	OGLL	-64.19	1-06	-.79	-50.09	48	-64.19	70	48-70
16S 36E 08 211	DR. H.W. GILLETTE	OGLL	-69.52	1-05	-.66	-53.67	48	-70.45	67	48-70
16S 36E 23 241	T.H. MONTEITH	OGLL	-56.27	1-06	-.56	-46.68	55	-57.09	65	54-58,60-63,65-70
16S 37E 01 311	WILKS	OGLL	-72.87	1-06	-1.55	-34.99	50	-72.87	70	50-70
16S 37E 02 122	HARADA	OGLL	-72.80	1-07	-1.89	-38.33	50	-72.80	70	50-70
16S 37E 07 114	BEAL GLEASON	OGLL	-55.02	1-06	-1.45	-38.32	50	-55.02	70	50-70
16S 37E 11 111	H.J. TAYLOR	OGLL	-69.10	1-06	-1.31	-31.93	49	-70.97	66	49-70
16S 37E 14 211	GREEN	OGLL	-68.92	1-06	-1.35	-39.73	50	-68.92	70	50-70
16S 37E 25 111	R.L. DAVIS	OGLL	-57.51	1-06	-.93	-36.87	50	-57.51	70	50-70
16S 38E 03 333	STATE OF NEW MEXICO	OGLL	-39.27	1-06	-1.31	-24.60	56	-39.27	70	53-70
16S 38E 26 113	WOODYS ACRES INC.	OGLL	-66.78	1-06	-1.55	-51.77	54	-66.78	70	54-64,66-70
16S 38E 27 111	WOODYS ACRES INC.	OGLL	-69.21	1-06	-3.14	-32.89	50	-69.21	70	50-70
16S 38E 30 211	MITCHELL	OGLL	-57.76	1-06	-4.05	-36.82	51	-57.76	70	51-64,67-70
16S 38E 34 131A	WOODYS ACRES INC.	OGLL	-80.95	1-06	-4.73	-63.47	59	-80.95	70	52,58-70
16S 39E 29 211	SIMS AND HOLDER	OGLL	-75.08	1-06	-2.13	-54.85	50	-75.08	70	50-58,60-70
17S 33E 13 341	UNKNOWN	OGLL	-161.08	1-05		-161.08	70	-161.08	70	70
17S 34E 28 223	SOUTHWEST POTASH	OGLL	-134.20	1-05	-1.19	-133.01	69	-153.41	68	68-70
17S 34E 35 130	STATE OF N. MEX.	OGLL	-102.09	1-05	-2.61	-89.88	53	-102.09	70	43-70
17S 35E 35 213	STATE OF N. MEX.	OGLL	-41.26	1-05	-.40	-37.94	59	-41.26	70	43-70
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-37.52	1-05	-.20	-33.05	49	-37.52	70	47-70
17S 37E 10 211	S.M. REILAND	OGLL	-50.10	1-06	-1.94	-32.87	49	-50.10	70	49-70
17S 37E 12 113	LEE STILES ESTATE	OGLL	-65.50	1-06	-1.24	-40.69	50	-65.50	70	50-70
17S 37E 34 111	C.G. GOODWIN	OGLL	-58.04	1-06	+.22	-42.13	57	-58.26	69	57-70
17S 38E 02 311	W.V. LAWRENCE	OGLL	-68.14	1-06	-3.25	-43.65	51	-68.14	70	49-70
17S 38E 07 111A	L.R. SEBRINGS	OGLL	-56.46	1-06	-1.40	-35.94	52	-56.46	70	51-70
17S 38E 08 211	J.J. HANDLEY JR.	OGLL	-62.93	1-06	-2.05	-36.46	50	-62.93	70	50-57,59-70
17S 38E 24 133	W.V. LAWRENCE	OGLL	-57.00	1-06	-9.28	-41.30	50	-57.00	70	50-58,60-64,66-70
17S 38E 31 311	G.L. BEENE	OGLL	-49.99	1-06	-1.36	-26.71	49	-49.99	70	48-70
17S 38E 34 113	W.E. BUSBY	OGLL	-43.61	1-06	-2.08	-24.78	44	-43.61	70	43-70
17S 39E 32 111	KING ACRES	OGLL	-87.78	1-06	-4.38	-72.92	50	-87.78	70	50-70
18S 34E 22 343	CONOCO OIL CO.	OGLL	-110.07	1-05	-.23	-109.22	67	-110.47	65	65-70
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-74.74	1-05	-.58	-69.49	56	-74.74	70	53-70
18S 35E 20 214	INT MIN AND CHEM CORP	OGLL	-73.27	1-05	-.27	-72.16	61	-73.27	70	53-58,60-70
18S 36E 27 111	STATE OF N. MEX.	OGLL	-43.68	1-05	-.50	-38.13	43	-43.68	70	42-70
18S 38E 03 313	GEO. MOONEY	OGLL	-48.23	1-06	-1.54	-29.68	52	-48.23	70	52-70
18S 38E 15 241	BEN RANDOLPH	OGLL	-54.95	1-06	-1.39	-27.20	44	-54.95	70	43-70
19S 36E 19 113	WILLIE M. EVANS	VLFL	-15.86	1-05	+.53	-15.06	47	-17.93	41	39-70
19S 36E 32 111	F.K. TURNER	VLFL	-15.90C	1-05	+.78	-15.15	42	-18.60	40	39-70
19S 37E 32 241	O.T. BOYD	VLFL	-12.09	1-05	-1.15	-10.94	69	-13.16B	67	42-70
19S 38E 02 242	S.J. PURVIS	OGLL	-44.11	1-05	+1.59	-42.01	61	-52.04	53	41-70
19S 38E 34 222	J.O. COURSEY	OGLL	-52.27	1-05	+.63	-42.27	49	-54.33	66	49-59,61-70
20S 35E 01 221A	H.S. RECORD	VLFL	-27.24A	1-05	-1.27	-24.89	63	-27.24A	70	57-70
20S 39E 18 344	EARL KORNEGAY	OGLL	-56.76A	1-05	+2.99	-46.76	66	-59.75	69	64-70

A - WELL BEING PUMPED.
B - WELL PUMPED RECENTLY.
C - NEARBY WELL PUMPING.

TECHNICAL REPORT 39

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1970, and changes in water levels, 1966-1970

By
J. D. Hudson - U.S. Geological Survey
&
R. L. Borton - State Engineer Office

With
a section on

Irrigated Cropland Acreage in New Mexico, 1970

By
Earl F. Sorensen
State Engineer Office

1974

Tatum-Lovington-Hobbs Area, Lea County

Lea County is in the southeastern corner of New Mexico. The Tatum-Lovington-Hobbs irrigation area is in northern Lea County on the Southern High Plains. The Ogallala Formation of Pliocene-Miocene(?) contains the principal aquifer from which ground water is obtained. It consists of sand, caliche, gravel, and some clay, and ranges in thickness from about 50 feet to more than 300 feet. The formation overlies Cretaceous shales or Triassic red beds of the Dockum Group.

The ground-water reservoir is recharged by precipitation, mainly from runoff in the drainageways and numerous depressions that characterize much of the surface of the plains. Ground water moves east-southeasterly from New Mexico into Texas except in the southern part of the plains in New Mexico where ground-water movement is more southerly. Springs along the western and southern borders of the plains discharge a small quantity of water, but wells discharge by far the greater amount of water.

Maps showing the top of the red beds were constructed in 1970 by the U.S. Geological Survey. These maps were used in conjunction with water-level contour maps to make an isopach map showing the saturated thickness of the Ogallala Formation. The indicated saturated thickness of the formation is as much as 240 feet in small areas about 6 miles north and 2 miles southeast of Hobbs.

The Lea County Underground Water Basin, declared by the State Engineer on August 21, 1931, was extended on October 1, 1952, and now includes 2,180 square miles.

In 1970, a preliminary estimate of irrigated acreage was made for Lea County by the New Mexico Reporting Service, State Engineer, and County Conservation Needs Inventory Committee. This report indicates a total of 101,500 acres were under irrigation in Lea County. Sorghum and cotton are the predominant crops.

Annual precipitation varied widely in the area during the 5-year period 1966-70. Annual totals for Hobbs, in inches, was as follows: 1966, 15.24; 1967, 7.45; 1968, 19.79; 1969, 20.64; 1970, 10.61. Annual totals for Tatum were: 1966, no record; 1967, 9.01; 1968, 23.14; 1969, 23.66; 1970, 11.98.

Water levels have been measured in Lea County since 1929 by the U.S. Geological Survey in cooperation with the State Engineer to determine the effects of pumpage and precipitation on ground-water storage. Water levels measured in January 1971 (table 7) and January 1970 were used in preparing the map (fig. 12) showing changes in water level in 1970. The same 1971 measurements were compared with measurements made in 1966 to prepare the map (fig. 13) showing water-level changes during the 5-year period 1966-70. In 1970, water levels declined throughout the irrigated areas; declines of more than 4 feet occurred under about 20 square miles in four areas near Lovington. During the 5-year period 1966-70 several areas declined more than 7 feet (fig. 13).

The Southern High Plains in Lea County is one of New Mexico's major petroleum-producing areas, and in recent years the demand for water for use in oilfield-waterflooding operations has been increasing. Instances of ground-water contamination by oil-field brines are not infrequent. This situation, which results from surface disposal of oil-field brines and from leaky oil-well casings, has been largely corrected in recent years by subsurface disposal of brine and periodic testing of oil-well casings.

TABLE 7.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1971, CHANGE FROM JANUARY 1970 TO JANUARY 1971, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: VLFL, VALLEY FILL; OGLL, OGALLALA

LOCATION NUMBER	OWNER	SOURCE	71 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
11S 31E 24 311	STATE OF N. MEX.	OGLL	-55.67	1-14	+.07	-55.67	71	-56.18	65	65-71
11S 32E 24 411	UNKNOWN	OGLL	-67.17	1-14	+.63	-67.17	71	-68.23	69	65-71
11S 33E 25 442	EPPERSON	OGLL	-33.35	1-15	+.05	-33.35	71	-34.02	66	53-71
12S 31E 23 333	F.E. DICKSON	OGLL	-129.52	1-14	+.17	-129.20	62	-130.37	55	53-71
12S 31E 26 333A	F.E. DICKSON	OGLL	-131.67	1-14	-1.24	-130.15	62	-131.67	71	53-63,65-71
12S 32E 03 433	UNKNOWN	OGLL	-50.66	1-15	-.22	-49.33	66	-50.66	71	65-71
12S 33E 28 211	MRS. B.C. ROACH	OGLL	-82.09	1-15	-.08	-82.01	70	-82.25C	66	65-71
12S 34E 11 413	A.D. JONES EST.	OGLL	-33.08	1-15	-.13	-29.78	50	-33.08	71	49-71
12S 34E 35 411	A.D. JONES	OGLL	-40.61	1-14	-2.98	-35.62	49	-59.00	62	48-71
12S 37E 20 343	ALVIN BRECKON	OGLL	-20.62	1-14	+.52	-20.62	71	-26.63	55	54-71
12S 38E 04 312	G.C. COPELAND	OGLL	-40.55	1-14	+.36	-39.15	43	-43.35	41	41-71
13S 31E 35 143	UNKNOWN	OGLL	-173.58	1-14	+.79	-173.24	69	-174.37	70	65-71
13S 32E 25 214	N.R. GROSS	OGLL	-142.90	1-15	+.01	-142.73	64	-143.34	55	53-60,62-71
13S 34E 21 111	LEON RICE	OGLL	-62.90	1-14		-62.90	69	-64.77	68	65-69,71
13S 35E 02 111A	R.W. DUNCAN	OGLL	-29.78	1-14	-.51	-26.53	56	-30.38	66	53-71
13S 35E 19 211	ELKAN	OGLL	-46.55	1-14	+.54	-44.75	46	-79.48	40	39-50,52-71
13S 36E 26 324	MRS. IONA MC CLISH	OGLL	-70.56	1-14	-.51	-42.24	49	-74.13	67	49-71
13S 37E 04 422	BRADY LOWE	OGLL	-36.54	1-14		-33.83	43	-39.66	65	40-41,43-47,49-69,71
13S 37E 09 111	A.P. BRECKON	OGLL	-40.85	1-14	-.17	-36.33	48	-41.49	68	46,48-71
13S 37E 28 413	J.B. AND J.O. DOREN	OGLL	-56.58	1-14	-.92	-31.70	45	-56.96	65	45-71
13S 38E 06 341	J.W. ANDERSON	OGLL	-63.23	1-14	-3.40	-43.02	45	-64.32A	68	40-65,67-71
14S 33E 35 133	AMERADA PETROL. CORP.	OGLL	-100.99	1-15	+.11	-100.73	64	-101.11	61	60-71
14S 35E 02 112	CLARA ELKAN	OGLL	-45.62	1-14	-.37	-37.06	56	-45.62	71	54,56-71
14S 35E 23 313	PROPST AND ANDERSON	OGLL	-42.23	1-14	-2.86	-37.56	62	-42.23	71	54-71
14S 35E 25 241	M.J. WIGGINS	OGLL	-63.17	1-14	-3.76	-43.30	50	-63.17	71	49-71
14S 35E 30 134	W.A. ANDERSON	OGLL	-45.45	1-14		-43.81	62	-51.43A	68	39-69,71
14S 35E 33 433	W.A. ANDERSON	OGLL	-45.07	1-14	+.42	-39.65	52	-45.86	69	42-71
14S 36E 01 211	G.T. HANNERS	OGLL	-76.33	1-14	+.45	-33.80	48	-76.78	70	48-52,54-71
14S 36E 02 113	LESLIE ESTEP	OGLL	-80.16	1-14	+.10	-48.44	50	-81.09	66	49-71
14S 36E 09 111	KARL CLAYTON	OGLL	-67.05	1-14	-.49	-38.36	44	-67.05	71	39-71
14S 36E 10 212	KARL CLAYTON	OGLL	-78.61	1-14	-.87	-47.98	49	-79.12	68	49-71
14S 36E 14 112	MRS. MATTIE FIELD	OGLL	-64.38	1-14	-.82	-40.75	46	-64.38	71	39-52,54-71
14S 36E 21 111	MAYO	OGLL	-61.85	1-14	-1.63	-42.69	49	-61.85	71	49-71
14S 36E 32 121	E.T. HOWELL	OGLL	-70.09	1-14	-5.46	-53.58	49	-70.09	71	49-66,68-71
14S 36E 33 131	BELL	OGLL	-78.71	1-14	-1.15	-56.92	50	-78.71	71	49-71
14S 36E 35 111	WRIGHT	OGLL	-69.00	1-14	+.70	-48.36	49	-69.70	70	49-50,52-55,57-67,69-71
14S 37E 03 113A	HOBBS AND HEIDEL	OGLL	-70.52	1-14	-2.17	-44.81	52	-70.52	71	52-67,69-71
14S 37E 05 211	KNOLL	OGLL	-69.54	1-14	-.32	-31.76	49	-69.54	71	49-71
14S 37E 07 311	E.L. HARBISON	OGLL	-72.67	1-14	-1.19	-42.82	49	-77.53A	53	49-71
14S 37E 08 113	HARBISON	OGLL	-70.28	1-14	-.16	-37.93	50	-70.28	71	49-71
14S 37E 13 311	W.T. CARTER	OGLL	-81.83	1-14	+.04	-35.57	49	-81.87	70	49-71
14S 37E 14 111	GOFF AND JOHNSON	OGLL	-83.84	1-14	+.25	-36.12	49	-84.09	70	48-49,51-71
14S 37E 16 421	C.A. FORT	OGLL	-69.38	1-14	-3.32	-28.86	43	-69.38	71	39-71
14S 37E 19 111	A.B. HENNINGTON	OGLL	-63.99	1-14	-1.95	-41.15	50	-63.99	71	49-62,64-71
14S 37E 20 412	G.O. DURHAM	OGLL	-74.25	1-14	-.94	-33.30	45	-74.25	71	39-68,70-71
14S 37E 27 311	J.R. FORT ESTATE	OGLL	-74.15	1-14	-1.16	-35.13	48	-74.15	71	48-71
14S 37E 31 333	AMANDA MILLER	OGLL	-72.22	1-14	-2.43	-44.80	50	-72.22	71	49-71
14S 38E 07 113	HEIDEL AND TAYLOR	OGLL	-74.84	1-14	-.08	-40.73	50	-74.84	71	50-71
14S 38E 21 311	IDA M. COX	OGLL	-52.72	1-14	+1.26	-32.48	49	-53.98	70	49-71
14S 38E 27 313	GUY CAVE	OGLL	-60.83	1-14	-1.33	-38.30	51	-60.83	71	51-53,55-71
14S 38E 31 111	ALDRIDGE	OGLL	-59.31	1-14	-1.00	-37.45	50	-59.31	71	48-71
15S 31E 23 311	UNKNOWN	OGLL	-254.99	1-13	-.12	-244.97	54	-255.17	69	54-71
15S 32E 06 223	TEXACO	OGLL	-188.55	1-13	+.16	-188.10	68	-189.13	67	65-71
15S 33E 14 143	J. ETCHEVERRY	OGLL	-100.48	1-13	-.29	-100.19	70	-101.94A	66	65-68,70-71
15S 35E 31 422	JOE PRICE	OGLL	-57.40	1-13	-.82	-54.14	51	-64.69A	54	49-58,60-66,68-71
15S 36E 01 311	J.W. SCOTT	OGLL	-71.54	1-13	-5.03	-43.60	49	-71.54	71	49-71
15S 36E 05 211	J.P. CAUDILL	OGLL	-72.84	1-13	-.30	-52.73	51	-72.84	71	50-71
15S 36E 14 131	F.O. GRAHAM	OGLL	-60.03	1-14	-.70	-42.38	45	-81.47A	54	41-45,52-71
15S 36E 17 111	B.F. AND WALTER ADAMS	OGLL	-68.40	1-13		-44.47	50	-68.45	69	49-69,71
15S 36E 20 133	E.B. PARSONS	OGLL	-66.97	1-13	+.51	-45.25	49	-67.54	68	49-71
15S 36E 28 133	J.R. AND BOSS HALE	OGLL	-77.18	1-14	-3.10	-44.53	47	-77.18	71	46-63,65-71
15S 36E 29 112	G.A. FISHER	OGLL	-69.99	1-13	-.30	-44.90	48	-69.99	71	48-71
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-66.20	1-13	-2.24	-46.14	51	-66.20	71	49-71
15S 36E 31 311	D.A. PAYTON	OGLL	-65.02	1-13	-.07	-47.35	48	-65.02	71	48-58,60-71
15S 36E 34 111	B.J. HARKRIDER	OGLL	-75.74	1-14	-6.34	-44.12	48	-75.74	71	48-58,60-66,68-71

TABLE 7.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1971, CHANGE FROM JANUARY 1970 TO JANUARY 1971, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: VLFL, VALLEY FILL; OGLL, OGALLALA

LOCATION NUMBER	OWNER	SOURCE	71 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
15S 37E 04 113	W. ANDERSON	OGLL	-63.21	1-13	-3.20	-37.10	50	-63.21	71	50-71
15S 37E 07 111	O.H. CROCKETT	OGLL	-68.26	1-13	-1.61	-46.13	50	-68.26	71	50-71
15S 37E 19 311	OTTO DEAN	OGLL	-63.19	1-14	-3.83	-41.09	50	-63.19	71	48-50,52,54-64,66-71
15S 37E 20 221	J.E. STEELE	OGLL	-66.19	1-14	-.44	-35.30	50	-66.19	71	49-71
15S 37E 21 334	ROBERT W. DEAN	OGLL	-68.40	1-14	-1.85	-29.20	45	-70.50	68	42-68,70-71
15S 37E 23 112	NELLIE FORT	OGLL	-48.67	1-13	-1.17	-35.59	51	-48.67	71	51-71
15S 37E 27 111	C.E. RENSHAW	OGLL	-60.72	1-14	-.73	-29.38	43	-60.72	71	42-44,46-71
15S 37E 29 111	T. WILKS	OGLL	-67.43	1-14	-.82	-39.08	51	-67.43	71	51-71
15S 37E 31 132	W.R. DEAN	OGLL	-62.33	1-14	-1.14	-35.04	50	-62.33	71	49-71
15S 37E 33 313	YARBRO	OGLL	-70.44	1-14	+2.26	-35.97	50	-72.70	70	50-64,66-71
15S 38E 10 321	LOWE	OGLL	-43.18	1-13	-.65	-31.84	51	-43.18	71	51-71
15S 38E 22 441	TROY C. FORT	OGLL	-41.39	1-13	+3.19	-28.72	42	-44.58	70	39-53,55-71
15S 38E 35 133	WAITS	OGLL	-53.72	1-13	+.17	-37.61	50	-54.07	65	50-58,60-71
16S 32E 20 311	TAYLOR AND HOLEMAN	OGLL	-256.69	1-13	-.03	-256.06	67	-257.46	60	59-71
16S 33E 12 133	SKELLY OIL CO.	OGLL	-120.91	1-13	+.89	-120.91	71	-121.82	65	65-71
16S 34E 20 233	MARATHON OIL CO.	OGLL	-105.99	1-13	+2.55	-104.80	68	-108.54	70	65-71
16S 35E 13 112	C.E. HILBURN	OGLL	-53.30	1-13	-.40	-43.38	49	-54.01	68	48-71
16S 35E 24 111	T.G. HESTER	OGLL	-51.43	1-13	+2.30	-44.09	51	-55.63	66	51-71
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-42.45	1-13	+.10	-35.37	49	-43.15	68	49-71
16S 36E 05 002	YADON RECORDER	OGLL	-60.54	1-13	-.91	-53.93	57	-60.54	71	56-71
16S 36E 05 124	I.D. PHILLIPS	OGLL	-64.44	1-13	-.25	-50.09	48	-64.44	71	48-71
16S 36E 08 211	DR. H.W. GILLETTE	OGLL	-69.70	1-13	-.18	-53.67	48	-70.45	67	48-71
16S 36E 11 232	LOVINGTON COUNTRY CLB	OGLL	-84.85	1-13		-53.97	48	-84.85	71	48-53,56,58-61,63-64,67-69,
16S 36E 11 232										71
16S 36E 23 241	T.H. MONTEITH	OGLL	-60.48	1-13	-4.21	-46.68	55	-60.48	71	54-58,60-63,65-71
16S 37E 01 311	WILKS	OGLL	-74.95	1-13	-2.08	-34.99	50	-74.95	71	50-71
16S 37E 02 004	HARADA	OGLL	-73.81	1-13	-1.01	-38.33	50	-73.81	71	50-71
16S 37E 07 114	BEAL GLEASON	OGLL	-57.23	1-13	-2.21	-38.32	50	-57.23	71	50-71
16S 37E 11 111	H.J. TAYLOR	OGLL	-71.01	1-13	-1.91	-31.93	49	-71.01	71	49-71
16S 37E 14 211	GREEN	OGLL	-72.41	1-13	-3.49	-39.73	50	-72.41	71	50-71
16S 37E 25 111	R.L. DAVIS	OGLL	-60.49	1-13	-2.98	-36.87	50	-60.49	71	50-71
16S 38E 03 333	STATE OF NEW MEXICO	OGLL	-44.11	1-13	-4.84	-24.60	56	-44.11	71	53-71
16S 38E 26 113	WOODYS ACRES INC.	OGLL	-68.19	1-13	-1.41	-51.77	54	-68.19	71	54-64,66-71
16S 38E 27 111	WOODYS ACRES INC.	OGLL	-72.37	1-13	-3.16	-32.89	50	-72.37	71	50-71
16S 38E 30 211	MITCHELL	OGLL	-56.15	1-13	+1.61	-36.82	51	-57.76	70	51-64,67-71
16S 38E 34 131A	WOODYS ACRES INC.	OGLL	-84.19	1-13	-3.24	-63.47	59	-84.19	71	52,58-71
16S 39E 29 002	SIMS AND HOLDER	OGLL	-75.52	1-13	-.44	-54.85	50	-75.52	71	50-58,60-71
17S 33E 13 341	UNKNOWN	OGLL	-161.34	1-12	-.26	-161.08	70	-161.34	71	70-71
17S 34E 28 223	SOUTHWEST POTASH	OGLL	-136.07	1-12	-1.87	-133.01	69	-153.41	68	68-71
17S 34E 35 130	STATE OF N. MEX.	OGLL	-104.50	1-12	-2.41	-89.88	53	-104.50	71	43-71
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-37.85	1-12	-.33	-33.05	49	-37.85	71	47-71
17S 37E 10 211	S.M. REILAND	OGLL	-50.70	1-12	-.60	-32.87	49	-50.70	71	49-71
17S 37E 12 113	LEE STILES ESTATE	OGLL	-67.35	1-12	-1.85	-40.69	50	-67.35	71	50-71
17S 37E 34 111	C.G. GOODWIN	OGLL	-58.86	1-12	-.82	-42.13	57	-58.86	71	57-71
17S 38E 02 311	W.V. LAWRENCE	OGLL	-68.01	1-12	+.13	-43.65	51	-68.14	70	49-71
17S 38E 07 111A	L.R. SEBRINGS	OGLL	-58.84	1-12	-2.38	-35.94	52	-58.84	71	51-71
17S 38E 08 211	J.J. HANCLEY JR.	OGLL	-62.18	1-12	+.75	-36.46	50	-62.93	70	50-57,59-71
17S 38E 24 133	W.V. LAWRENCE	OGLL	-48.76	1-12	+8.24	-41.30	50	-57.00	70	50-58,60-64,66-71
17S 38E 31 311	G.L. BEENE	OGLL	-50.55	1-12	-.56	-26.71	49	-50.55	71	48-71
17S 38E 34 113	W.E. BUSBY	OGLL	-43.65	1-12	-.04	-24.78	44	-43.65	71	43-71
18S 34E 22 343	CONOCO OIL CO.	OGLL	-109.80	1-12	+.27	-109.22	67	-110.47	65	65-71
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-73.77	1-12	+.97	-69.49	56	-74.74	70	53-71
18S 35E 20 214	INT MIN AND CHEM CORP	OGLL	-73.31	1-12	-.04	-72.16	61	-73.31	71	53-58,60-71
18S 36E 27 111	STATE OF N. MEX.	OGLL	-44.27	1-12	-.59	-38.13	43	-44.27	71	42-71
18S 38E 03 313	GEO. MOONEY	OGLL	-49.40	1-12	-1.17	-29.68	52	-49.40	71	52-71
19S 36E 19 113	WILLIE M. EVANS	VLFL	-16.22	1-12	-.36	-15.06	47	-17.93	41	39-71
19S 36E 32 111	F.K. TURNER	VLFL	-15.62	1-12	+.28	-15.15	42	-18.60	40	39-71
19S 37E 32 241	O.I. BOYD	VLFL	-12.31	1-12	-.22	-10.94	69	-13.16B	67	42-71
19S 38E 02 242	S.J. PURVIS	OGLL	-46.42	1-12	-2.31	-42.01	61	-52.04	53	41-71
19S 38E 34 222	J.O. COURSEY	OGLL	-52.91	1-12	-.64	-42.27	49	-54.33	66	49-59,61-71
20S 35E 01 221A	H.S. RECORD	VLFL	-27.00	1-12	+.24	-24.89A	63	-27.24A	70	57-71
20S 39E 18 344A	EARL KORNEGAY	OGLL	-47.66	1-12	+9.10	-46.76	66	-59.75	69	64-71

A - WELL BEING PUMPED.
B - WELL PUMPED RECENTLY.
C - NEARBY WELL PUMPING.

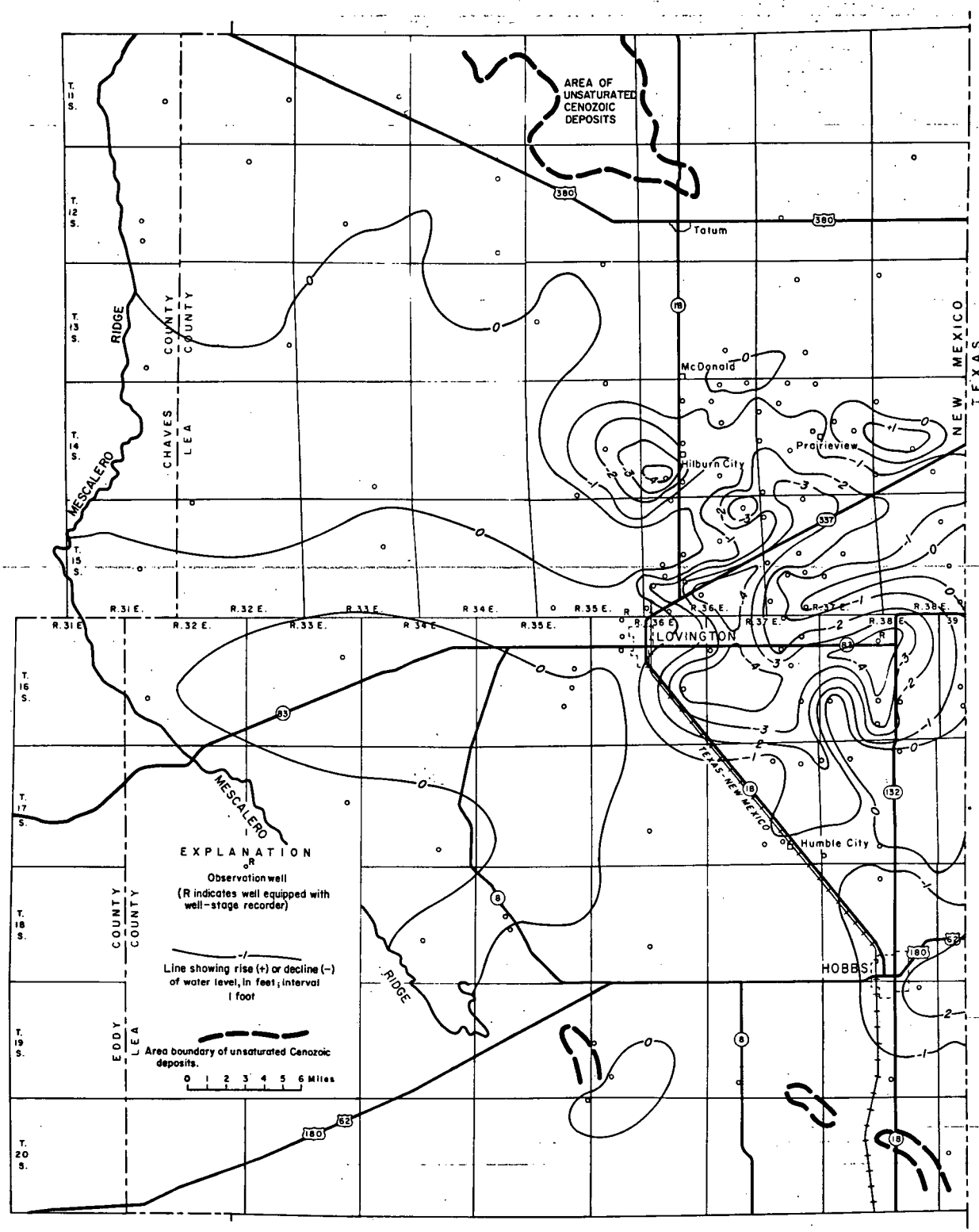


FIGURE 12.-- Change of ground-water level from January 1970 to January 1971 in Tatum-Lovington-Hobbs area, Lea County, N. Mex.

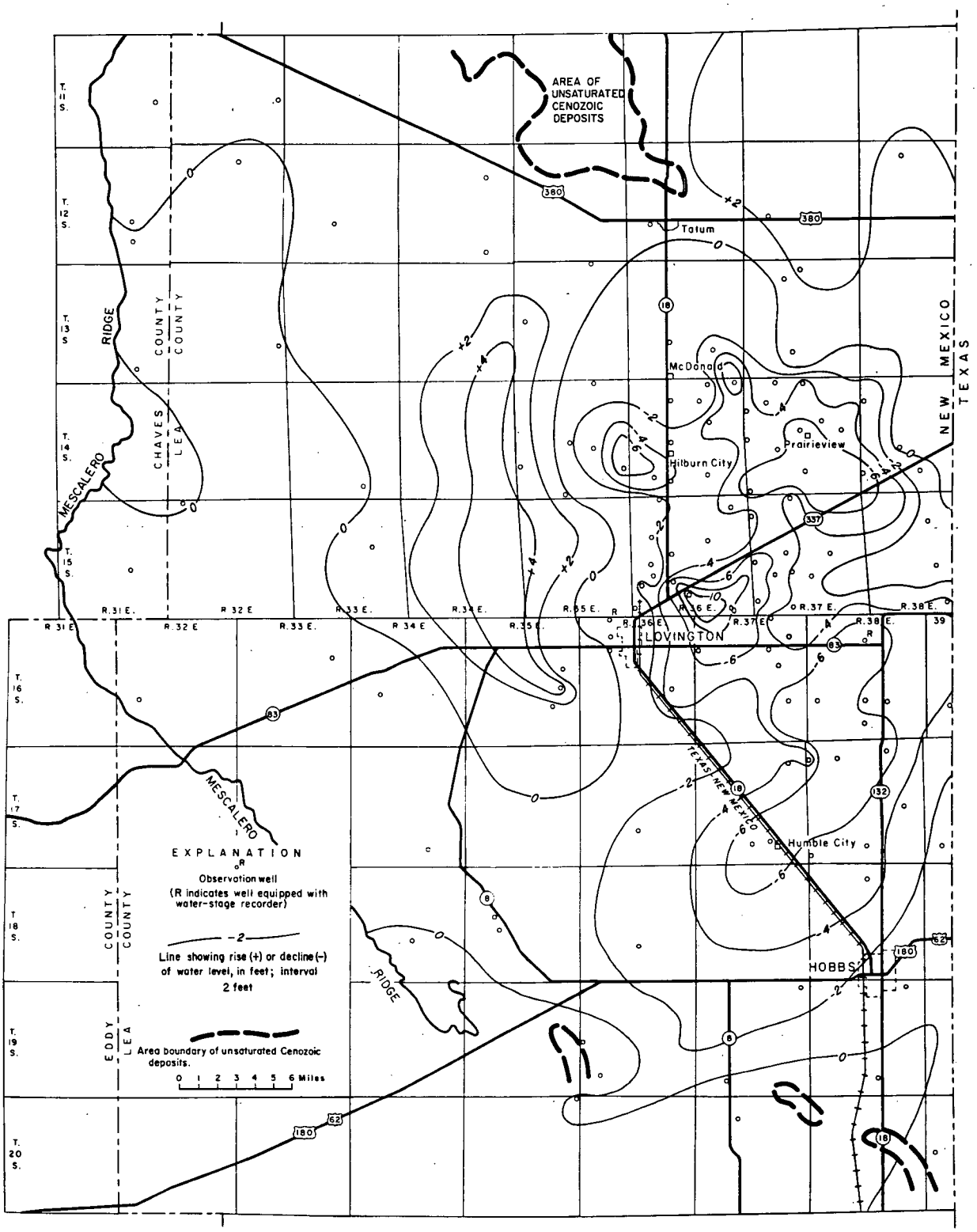


FIGURE 13.-- Change of ground-water level from January 1966 to January 1971 in Tatum-Lovington-Hobbs area, Lea County, N. Mex.

BASIC DATA REPORT

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1973

By
J. D. Hudson

United States Geological Survey

1975

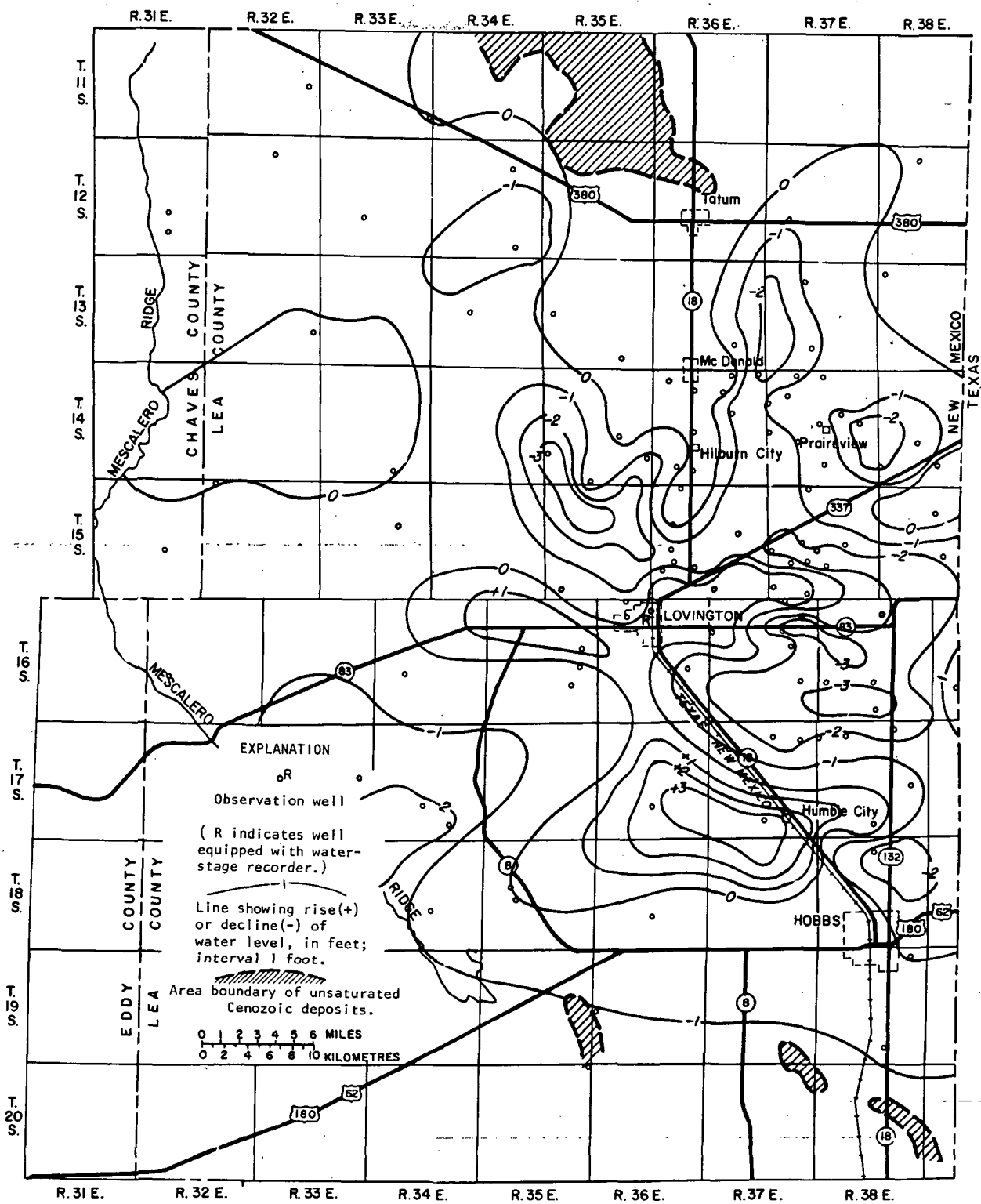


FIGURE 9. --Change of ground-water level from January 1973 to January 1974 in the Tatum-Lovington-Hobbs area, Lea County, N. Mex.

TABLE 10.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1974, CHANGE FROM JANUARY 1973 TO JANUARY 1974, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: OGLL, OGALLALA; VLFL, VALLEY FILL

LOCATION	OWNER	SOURCE	74 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
11S 32E 24 411	UNKNOWN	OGLL	-68.44	1-07	-.19	-67.17	71	-68.44	74	65-74
11S 33E 25 442	EPPERSON	OGLL	-33.48	1-07	+.19	-33.35	71	-34.02	66	53-74
12S 31E 23 333	F.E. DICKSON	OGLL	-129.76	1-07	-.24	-129.20	62	-130.37	55	54-74
12S 31E 26 333A	F.E. DICKSON	OGLL	-131.68	1-07	-.05	-130.15	62	-131.85	72	54-63,65-74
12S 32E 03 433	UNKNOWN	OGLL	-51.38	1-07	-.42	-49.33	66	-51.38	74	65-74
12S 33E 28 211	MRS. B.C. ROACH	OGLL	-81.77	1-07	-.14	-81.63	73	-82.25C	66	65-74
12S 34E 11 413	A.D. JONES EST.	OGLL	-33.67	1-07	-.13	-29.78	50	-33.67	74	49-74
12S 34E 35 411	A.D. JONES	OGLL	-40.67	1-07	-1.99	-35.62	49	-59.00	62	48-74
12S 37E 06 131	UNKNOWN	OGLL	-23.20	1-07	-	-23.20	74	-23.20	74	74
12S 37E 20 343	ALVIN BRECKON	OGLL	-21.25	1-07	-.78	-20.47	73	-26.63	55	54-74
12S 38E 04 312	G.C. COPELAND	OGLL	-40.05	1-07	+.22	-39.15	43	-43.35	41	41-74
13S 32E 25 214	N.R. GROSS	OGLL	-142.81	1-08	+.09	-142.73	64	-143.34	55	53-60,62-74
13S 34E 21 111	LEON RICE	OGLL	-63.82	1-07	-.45	-62.90	69	-64.77	68	65-69,71-74
13S 35E 02 111A	R.W. DUNCAN	OGLL	-31.50	1-07	-	-26.53	56	-31.50	74	53-72,74
13S 35E 19 211	ELKAN	OGLL	-46.60	1-07	+.88	-44.75	46	-79.48	40	39-50,52-74
13S 35E 35 311	UNKNOWN	OGLL	-45.87	1-07	+.52	-45.87	74	-46.39	73	73-74
13S 36E 21 133	UNKNOWN	OGLL	-59.20	1-07	-	-59.20	74	-59.20	74	74
13S 36E 26 324	MRS. IONA MC CLISH	OGLL	-73.99	1-07	-.71	-42.24	49	-74.13	67	49-74
13S 37E 04 422	BRADY LOWE	OGLL	-36.18	1-07	-	-33.83	43	-39.66	65	40-41,43-47,49-69,71-72,74
13S 37E 09 111	A.P. BRECKON	OGLL	-41.29	1-07	-.27	-36.33	48	-41.49	68	46,48-74
13S 37E 28 413	J.B. AND J.D. DOREN	OGLL	-59.61	1-07	-1.09	-31.70	45	-59.61	74	45-74
13S 38E 06 341	J.W. ANDERSON	OGLL	-60.79	1-07	+.87	-43.02	45	-64.32A	68	40-65,67-74
14S 33E 35 133	AMERADA PETROL. CORP.	OGLL	-100.75	1-08	+.03	-100.73	64	-101.11	61	60-74
14S 35E 23 313	PROPST AND ANDERSON	OGLL	-40.35	1-07	+.55	-37.56	62	-42.23	71	54-74
14S 35E 25 241	M.J. WIGGINS	OGLL	-61.80	1-07	-1.76	-43.30	50	-63.17	71	49-74
14S 35E 30 134	W.A. ANDERSON	OGLL	-48.97	1-07	-3.47	-43.81	62	-51.43A	68	39-69,71-74
14S 35E 33 433	W.A. ANDERSON	OGLL	-46.60	1-07	-.40	-39.65	52	-46.60	74	42-74
14S 36E 01 211	G.T. HANNERS	OGLL	-78.85	1-07	-2.17	-33.80	48	-78.85	74	48-52,54-74
14S 36E 02 113	LESLIE ESTEP	OGLL	-82.09	1-07	+.08	-48.44	50	-82.17	73	49-74
14S 36E 06 421	RICHARDSON	OGLL	-58.73	1-07	+.18	-39.03	44	-67.04A	54	39-44,46-55,57-70,72-74
14S 36E 09 111	KARL CLAYTON	OGLL	-68.24	1-07	+.07	-38.36	44	-68.42	72	39-74
14S 36E 10 212	KARL CLAYTON	OGLL	-79.08	1-07	+.72	-47.98	49	-79.80	73	49-74
14S 36E 14 112	MRS. MATTIE FIELD	OGLL	-67.02	1-07	-1.06	-40.75	46	-67.02	74	39-52,54-74
14S 36E 21 111	MAYO	OGLL	-62.82	1-07	+.48	-42.69	49	-63.75	72	49-74
14S 36E 32 121	E.T. HOWELL	OGLL	-66.72	1-07	-.25	-53.58	49	-70.09	71	49-66,68-74
14S 36E 33 131	BELL	OGLL	-79.02	1-08	+.03	-56.92	50	-79.05	73	49-74
14S 36E 35 111	WRIGHT	OGLL	-69.37	1-08	-	-48.36	49	-70.40	72	49-50,52-55,57-67,69-72,74
14S 37E 03 113A	HOBBS AND HEIDEL	OGLL	-69.81	1-07	-.45	-44.81	52	-71.67	72	52-67,69-74
14S 37E 05 211	KNOLL	OGLL	-71.47	1-07	-1.49	-31.76	49	-71.47	74	49-74
14S 37E 07 311	E.L. HARBISON	OGLL	-75.05	1-07	-.55	-42.82	49	-77.53A	53	49-74
14S 37E 08 113	HARBISON	OGLL	-73.10	1-07	-.30	-37.93	50	-73.10	74	49-74
14S 37E 13 311	W.T. CARTER	OGLL	-86.49	1-08	-2.36	-35.57	49	-86.49	74	49-74
14S 37E 14 111	GOFF AND JOHNSON	OGLL	-86.03	1-08	-1.09	-36.12	49	-86.03	74	49-74,51-74
14S 37E 16 421	C.A. FORT	OGLL	-72.53	1-08	-.81	-28.86	43	-72.53	74	39-74
14S 37E 19 111	A.B. HENNINGTON	OGLL	-67.17	1-07	-1.17	-41.15	50	-67.17	74	49-62,64-74
14S 37E 20 412	G.O. DURHAM	OGLL	-75.18	1-08	-.96	-33.30	45	-75.18	74	39-68,70-74
14S 37E 27 311	J.R. FORT ESTATE	OGLL	-78.55	1-08	-.77	-35.13	48	-78.55	74	48-74
14S 37E 31 333	AMANDA MILLER	OGLL	-74.09	1-08	-	-44.80	50	-74.09	74	49-72,74
14S 38E 07 113	HEIDEL AND TAYLOR	OGLL	-77.84	1-08	-	-40.73	50	-77.84	74	50-72,74
14S 38E 21 311	IDA M. COX	OGLL	-57.58	1-08	-1.60	-32.48	49	-57.58	74	49-74
14S 38E 27 313	GUY CAVE	OGLL	-58.39	1-08	+.11	-38.30	51	-61.89	72	51-53,55-74
14S 38E 31 111	ALDRIDGE	OGLL	-64.68	1-08	-2.17	-37.45	50	-64.68	74	48-74
15S 31E 23 311	UNKNOWN	OGLL	-256.03	1-07	-.71	-248.49	57	-256.03	74	57-74
15S 32E 06 223	TEXACO	OGLL	-188.30	1-07	+.28	-188.10	68	-189.13	67	65-74
15S 33E 14 143	J. ETCHEVERRY	OGLL	-83.19	1-08	-.68	-82.51	73	-101.94A	66	65-68,70-71,73-74
15S 35E 31 422	JOE PRICE	OGLL	-57.47	1-08	-.22	-54.14	51	-64.69A	54	49-58,60-66,68-74
15S 36E 05 211	J.P. CAUDILL	OGLL	-73.98	1-07	+.22	-52.73	51	-74.20	73	50-74
15S 36E 14 131	F.O. GRAHAM	OGLL	-62.89	1-08	-1.58	-42.38	45	-81.47A	54	41-45,52-74
15S 36E 17 111	B.F. AND WALTER ADAMS	OGLL	-67.63	1-08	+.13	-44.47	50	-68.45	69	49-69,71-74
15S 36E 20 133	E.B. PARSONS	OGLL	-70.99	1-08	-1.42	-45.25	49	-70.99	74	49-74
15S 36E 28 133	J.R. AND BOSS HALE	OGLL	-77.05	1-08	-1.08	-44.53	47	-77.18	71	46-63,65-74
15S 36E 29 112	G.A. FISHER	OGLL	-72.59	1-08	-1.54	-44.90	48	-72.59	74	48-74
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-65.27	1-08	-.15	-46.14	51	-66.20	71	49-74
15S 36E 34 111	B.J. HARKRIDER	OGLL	-72.26	1-08	+.17	-44.12	48	-75.74	71	48-58,60-66,68-71,73-74
15S 37E 04 113	W. ANDERSON	OGLL	-66.06	1-08	-.48	-37.10	50	-66.06	74	50-74

TABLE 10.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1974, CHANGE FROM JANUARY 1973 TO JANUARY 1974, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: OGLL, OGALLALA; VLFL, VALLEY FILL

LOCATION	OWNER	SOURCE	74 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
15S 37E 19 311	OTTO DEAN	OGLL	-64.58	1-08	-2.80	-41.09	50	-64.58	74	48-50,52,54-64,66-74
15S 37E 20 221	J.E. STEELE	OGLL	-68.45	1-08	-1.30	-35.30	50	-68.45	74	49-74
15S 37E 21 334	ROBERT W. DEAN	OGLL	-70.20	1-08	-2.16	-29.20	45	-70.50	68	42-68 70-74
15S 37E 23 112	NELLIE FORT	OGLL	-51.35	1-08	-1.49	-35.59	51	-51.35	74	51-74
15S 37E 27 111	C.E. RENSHAW	OGLL	-65.02	1-08	-2.88	-29.38	43	-65.02	74	42-44,46-74
15S 37E 29 111	T. WILKS	OGLL	-69.30	1-08	-1.22	-39.08	51	-69.30	74	51-74
15S 37E 31 132	W.R. DEAN	OGLL	-62.84	1-08	+.36	-35.04	50	-63.20	73	49-74
15S 37E 33 313	YARBRO	OGLL	-69.30	1-08	+.96	-35.97	50	-72.70	70	50-64,66-74
15S 38E 10 321	LOWE	OGLL	-40.54	1-08	+2.86	-31.84	51	-43.47	72	51-74
15S 38E 22 441	TROY C. FORT	OGLL	-42.00	1-08	-1.98	-28.72	42	-44.58	70	39-53,55-74
16S 34E 20 233	MARATHON OIL CO.	OGLL	-107.75	1-08	-.23	-104.80	68	-108.54	70	65-74
16S 35E 13 112	C.E. HILBURN	OGLL	-52.82	1-08	+1.76	-43.38	49	-54.58	73	48-74
16S 35E 24 111	T.G. HESTER	OGLL	-51.65	1-08	-.71	-44.09	51	-55.63	66	51-74
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-43.87	1-08	-.42	-35.37	49	-43.87	74	49-74
16S 36E 04 322	LOVINGTON RECORDER	OGLL	-65.57	1-08	+.21	-65.48	72	-65.78	73	71-74
16S 36E 05 124	I.D. PHILLIPS	OGLL	-63.67	1-08	-.76	-50.09	48	-64.44	71	48-71,73-74
16S 36E 08 211	DR. H.W. GILLETTE	OGLL	-69.99	1-08	-.12	-53.67	48	-70.45	67	48-74
16S 36E 23 241	T.H. MONTEITH	OGLL	-61.02	1-08	-1.58	-46.68	55	-62.59	72	54-58,60-63,65-74
16S 37E 01 311	WILKS	OGLL	-77.55	1-08	-2.28	-34.99	50	-77.55	74	50-74
16S 37E 02 211	HARADA	OGLL	-72.36	1-08	+.20	-38.33	50	-73.81	71	50-74
16S 37E 07 114	BEAL GLEASON	OGLL	-52.14	1-08	+.86	-38.32	50	-57.23	71	50-74
16S 37E 11 111	H.J. TAYLOR	OGLL	-72.81	1-08	-3.65	-31.93	49	-72.81	74	49-74
16S 37E 14 211	GREEN	OGLL	-73.45	1-08	-1.55	-39.73	50	-73.66	72	50-74
16S 37E 25 111	R.L. DAVIS	OGLL	-60.41	1-08	-2.21	-36.87	50	-60.87	72	50-74
16S 38E 03 333	STATE OF NEW MEXICO	OGLL	-40.34	1-08	-1.42	-24.60	56	-44.11	71	53-74
16S 38E 27 111	WOODYS ACRES INC.	OGLL	-74.49	1-08	-2.14	-32.89	50	-74.49	74	50-74
16S 38E 30 211	MITCHELL	OGLL	-57.27	1-08	-2.48	-36.82	51	-57.76	70	51-64,67-74
16S 38E 34 131A	WOODYS ACRES INC.	OGLL	-94.59	1-08	-6.33	-63.47	59	-94.59	74	52,58-74
16S 39E 29 233	SIMS AND HOLDER	OGLL	-81.32	1-08	-.24	-54.85	50	-81.32	74	50-58,60-74
17S 33E 13 341	POTASH CO. OF AMERICA	OGLL	-163.23	1-08	-1.24	-147.49	53	-163.23	74	53-74
17S 34E 28 223	SOUTHWEST POTASH	OGLL	-143.26	1-08	-2.22	-133.01	69	-153.41	68	68-74
17S 34E 35 130	STATE OF N. MEX.	OGLL	-111.78	1-08	-2.24	-89.88	53	-111.78	74	43-74
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-35.66	1-08	+2.27	-33.05	49	-37.93	73	47-74
17S 37E 10 211	S.M. REILAND	OGLL	-53.67	1-08	-2.25	-32.87	49	-53.67	74	49-74
17S 37E 12 113	LEE STILES ESTATE	OGLL	-71.65	1-08	-2.21	-40.69	50	-71.65	74	50-74
17S 37E 34 111	C.G. GOODWIN	OGLL	-61.14	1-08	+8.60	-42.13	57	-69.74	73	57-74
17S 38E 02 311	W.V. LAWRENCE	OGLL	-70.68	1-08	-2.19	-43.65	51	-70.68	72	49-74
17S 38E 07 111A	L.R. SEBRINGS	OGLL	-62.23	1-08	-1.97	-35.94	52	-62.23	74	51-74
17S 38E 08 211	J.J. HANDLEY JR.	OGLL	-65.55	1-08	-1.12	-36.46	50	-65.55	74	50-57,59-74
17S 38E 24 133	W.V. LAWRENCE	OGLL	-49.68	1-08	-.56	-41.30	50	-57.00	70	50-58,60-64,66-74
17S 38E 31 311	G.L. BEENE	OGLL	-49.76	1-08	-	-26.71	49	-50.55	71	48-71,74
17S 38E 34 113	W.E. BUSBY	OGLL	-46.63	1-08	+.38	-24.78	44	-47.01	73	43-74
18S 34E 22 343	CONOCO OIL CO.	OGLL	-109.97	1-08	-.30	-109.22	67	-110.82	72	65-74
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-74.78	1-08	0.00	-69.49	56	-74.78	74	53-74
18S 35E 20 214	INT MIN AND CHEM CORP	OGLL	-73.73	1-08	-.15	-72.16	61	-73.73	74	53-58,60-74
18S 36E 27 111	STATE OF N. MEX.	OGLL	-45.60	1-08	-.55	-38.13	43	-45.60	74	42-74
18S 38E 03 313	GEO. MOONEY	OGLL	-54.18	1-08	-2.35	-29.68	52	-54.18	74	52-74
19S 36E 19 113	WILLIE M. EVANS	VLFL	-17.64	1-08	-1.04	-15.06	47	-17.93	41	39-74
19S 36E 32 143	F.K. TURNER	OGLL	-26.43	1-08	-	-26.43	74	-26.43	74	74
19S 37E 34 111	UNKNOWN	OGLL	-22.33	1-08	-	-22.33	74	-22.33	74	74
19S 38E 30 121	UNKNOWN	OGLL	-30.52	1-08	-	-30.52	74	-30.52	74	74
19S 38E 34 222	J.O. COURSEY	OGLL	-52.77	1-08	-.86	-42.27	49	-55.05	72	49-59,61-74
20S 39E 18 344A	EARL KORNEGAY	OGLL	-63.68A	1-08	-	-46.76	66	-63.68A	74	64-72,74

A - WELL BEING PUMPED.
C - NEARBY WELL PUMPING.

TABLE 11.--Daily water levels in well 16S.36E.4.322, City of Lovington, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Drilled well completed in Ogallala Formation; depth 212 ft.; lsd is 3,926 ft. above msl. Highest water level 65.00 Jan. 14,16, and 24, 1973; lowest water level 67.11 Aug. 24, 1971; records available 1971-73.

Daily highest water level, in feet below land-surface datum, from recorder graph, 1973

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	65.84	65.80	65.70	65.60	65.60	65.61	65.65	65.69	65.64	65.66	65.61	65.61
2	65.79	65.80	65.70	65.60	65.64	65.60	65.66	65.69	65.65	65.66	65.63	65.57
3	65.79	65.70	65.70	65.70	65.67	65.59	65.66	65.70	65.65	65.66	65.63	65.57
4	65.81	65.30	65.70	65.61	65.62	65.60	65.65	65.70	65.65	65.71	65.63	65.59
5	65.81	65.70	65.70	65.60	65.60	65.60	65.64	65.67	65.66	65.69	65.66	65.61
6	65.81	65.70	65.70	65.60	65.58	65.60	65.64	65.66	65.65	65.66	65.62	65.61
7	65.80	65.70	65.70	65.60	65.60	65.62	65.64	65.67	65.65	65.65	65.62	65.61
8	65.81	65.70	65.70	65.70	65.22	65.68	65.65	65.67	65.65	65.64	65.62	65.59
9	65.80	65.70	65.69	65.30	65.62	65.68	65.65	65.67	65.67	65.64	65.67	65.59
10	65.78	65.70	65.61	65.60	65.60	65.67	65.65	65.66	65.67	65.63	65.63	65.60
11	65.81	65.70	65.70	65.20	65.62	65.67	65.65	65.67	65.65	65.66	65.62	65.59
12	65.79	65.70	65.67	65.60	65.60	65.67	65.65	65.68	65.64	65.65	65.61	65.59
13	65.80	65.30	65.60	65.60	65.63	65.67	65.64	65.67	65.67	65.71	65.60	65.58
14	65.00	65.70	65.70	65.60	65.63	65.66	65.65	65.66	65.67	65.71	65.60	65.57
15	65.70	65.70	65.72	65.60	65.62	65.66	65.66	65.65	65.66	65.66	65.63	65.58
16	65.00	65.70	65.73	65.60	65.63	65.66	65.66	65.66	65.67	65.69	65.60	65.61
17	65.70	65.70	65.60	65.60	65.60	65.65	65.66	65.66	65.69	65.69	65.60	65.57
18	65.79	65.70	65.61	65.60	65.60	65.66	65.67	65.67	65.66	65.67	65.60	65.56
19	65.70	65.70	65.70	65.60	65.60	65.67	65.67	65.67	65.66	65.65	65.49	65.56
20	e65.73	65.70	65.70	65.60	65.60	65.68	65.67	65.67	65.66	65.64	65.58	65.61
21	65.76	65.70	65.60	65.66	65.60	65.68	65.68	65.66	65.66	65.65	65.60	65.58
22	65.79	65.70	65.60	65.64	65.60	65.67	65.62	65.65	65.67	65.67	65.61	65.56
23	65.80	65.70	65.67	65.62	65.58	65.66	65.68	65.65	65.64	65.63	65.61	65.54
24	65.00	65.70	65.68	65.62	65.60	65.66	65.68	65.65	65.65	65.63	65.59	65.55
25	65.30	65.70	65.69	65.62	65.60	65.65	65.69	65.65	65.65	65.63	65.58	65.56
26	65.30	65.70	65.60	65.64	65.60	65.65	65.68	65.65	65.67	65.63	65.57	65.55
27	65.70	65.70	65.60	65.62	65.58	65.65	65.67	65.65	65.72	65.67	65.59	65.58
28	65.80	65.70	65.61	65.60	65.58	65.64	65.68	65.65	65.66	65.66	65.65	65.57
29	65.70	-	65.60	65.60	65.61	65.63	65.68	65.65	65.66	65.61	65.62	65.56
30	65.70	-	65.30	65.60	65.63	65.64	65.69	65.64	65.67	65.62	65.62	65.55
31	65.70	-	65.60	-	65.62	-	65.71	65.64	-	65.62	-	65.56

e estimated

BASIC DATA REPORT

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1974

By
J. D. Hudson - U.S. Geological Survey

With

A bibliography of papers and publications pertaining to ground water in New Mexico published or released to the open file in 1974, with additions from 1948-73

By
R. L. Borton
State Engineer Office

1976

TABLE 11.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1975, CHANGE FROM JANUARY 1974 TO JANUARY 1975, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: CGLL, OGALLALA; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	75 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
11S 32E 24 411	UNKNOWN	OGLL	-68.29	1-07	+.15	-65.85	61	-68.44	74	61,65-75
11S 33E 25 442	EPPERSON	OGLL	-33.81	1-07	-.33	-33.35	71	-34.12	66	54-75
12S 31E 23 333	F.E. DICKSON	OGLL	-129.65	1-07	+.11	-129.20	62	-130.37	55	54-75
12S 31E 26 333	F.E. DICKSON	OGLL	-131.74	1-07	-.06	-130.15	62	-131.85	72	54-63,65-75
12S 32E 03 433	UNKNOWN	OGLL	-51.41	1-07	-.03	-49.33	66	-51.41	75	65-75
12S 33E 28 211	B.C. ROACH	OGLL	-81.97	1-08	-.20	-81.63	73	-82.25	67	61,65-75
12S 34E 11 413	A.D. JONES	OGLL	-33.70	1-07	-.03	-29.78	50	-33.70	75	50-75
12S 34E 35 411	A.D. JONES	OGLL	-36.92	1-07	+3.75	-35.62	49	-59.10	62	48-75
12S 37E 06 131	UNKNOWN	OGLL	-21.34	1-07	+1.86	-21.34	75	-23.20	74	74-75
12S 37E 20 343	ALVIN BRECKON	OGLL	-20.87	1-07	+.38	-20.47	73	-26.63	55	54-75
12S 38E 04 312	G.C. COPELAND	OGLL	-39.68	1-07	+.37	-39.15	43	-43.35	41	41-75
13S 32E 25 214	N.R. GROSS	OGLL	-142.86	1-08	-.05	-142.73	64	-143.34	55	54-60,62-75
13S 34E 21 111	LEON RICE	OGLL	-62.12	1-07	+1.70	-62.12	75	-64.77	68	65-69,71-75
13S 35E 02 111A	R.W. DUNCAN	OGLL	-28.25	1-07	+3.25	-26.53	56	-31.50	74	54-72,74-75
13S 35E 35 311	UNKNOWN	CGLL	-46.18	1-07	-.31	-45.87	74	-46.39	73	73-75
13S 36E 21 133	UNKNOWN	OGLL	-64.20	1-07	-5.00	-59.20	74	-64.20	75	74-75
13S 36E 26 324	IONA MC CLISH	CGLL	-76.20	1-07	-2.21	-42.24	49	-76.20	75	49-75
13S 37E 04 422	BRADY LOWE	OGLL	-35.69	1-07	+.49	-33.83	43	-39.66	65	40-41,43-47,49-69,71-72,74-75
13S 37E 28 413	J.B. AND J.D. DOREN	OGLL	-60.55	1-07	-.94	-31.70	45	-60.55	75	45-75
13S 38E 06 341	J.W. ANDERSON	CGLL	-60.92	1-07	-.13	-43.02	45	-63.40	72	40-65,67-75
14S 33E 35 133	AMERADA PETROL. CORP.	OGLL	-100.67	1-08	+.08	-100.67	75	-101.11	61	61-75
14S 35E 06 211	UNKNOWN	OGLL	-45.20	1-07	-	-45.20	75	-45.20	75	75
14S 35E 23 313	PROPST AND ANDERSON	OGLL	-43.50	1-07	-3.15	-37.56	62	-43.50	75	54-75
14S 35E 25 241	M.J. WIGGINS	OGLL	-62.22	1-07	-.42	-43.30	50	-63.17	71	49-75
14S 35E 30 134	W.A. ANDERSON	OGLL	-49.95	1-07	-.98	-43.81	62	-49.95	75	39-69,71-75
14S 35E 33 433	W.A. ANDERSON	CGLL	-46.18	1-07	+.42	-39.65	52	-46.60	74	43-58,60-75
14S 36E 01 211	G.T. HANNERS	OGLL	-80.12	1-07	-1.27	-33.80	48	-80.12	75	48-52,54-75
14S 36E 02 113	LESLIE ESTEP	CGLL	-84.68	1-07	-2.59	-48.44	50	-84.68	75	49-75
14S 36E 06 421	RICHARDSON	OGLL	-59.45	1-07	-.72	-39.03	44	-60.90	69	40-44,46-55,57-75
14S 36E 09 111	KARL CLAYTON	OGLL	-72.77	1-07	-4.53	-38.36	44	-72.77	75	39-75
14S 36E 10 212	KARL CLAYTON	OGLL	-81.65	1-07	-2.57	-47.99	49	-91.65	75	49-75
14S 36E 14 112	MATTIE FIELD	CGLL	-69.02	1-07	-2.00	-40.75	46	-69.02	75	39-52,54-75
14S 36E 21 111	MAYO	OGLL	-64.49	1-07	-1.67	-42.69	49	-64.49	75	49-75
14S 36E 32 121	E.T. HOWELL	OGLL	-67.17	1-07	-.45	-53.59	49	-70.09	71	49-66,68-75
14S 36E 33 131	BELL	OGLL	-79.38	1-07	-.36	-56.92	50	-79.38	75	49-75
14S 36E 35 111A	FREDIA WRIGHT	CGLL	-70.04	1-07	-.67	-69.37	74	-70.04	75	74-75
14S 37E 03 114	HOBBS AND HEIDEL	OGLL	-69.31	1-07	+.50	-44.81	52	-71.67	72	52-75
14S 37E 05 211	KNOLL	CGLL	-69.91	1-07	+1.56	-31.76	49	-71.47	74	49-75
14S 37E 07 311	E.L. HARBISON	OGLL	-77.20	1-07	-2.15	-42.82	49	-77.20	75	49-75
14S 37E 08 113	HARBISON	OGLL	-72.97	1-07	+.13	-37.93	50	-73.10	74	49-75
14S 37E 13 311	W.T. CARTER	OGLL	-86.86	1-07	-.37	-35.57	49	-86.86	75	49-75
14S 37E 14 111	GOFF AND JOHNSON	OGLL	-86.32	1-07	-.79	-36.12	49	-86.32	75	49,51-58,60-75
14S 37E 16 421	C.A. FORT	CGLL	-72.75	1-07	-.22	-28.86	43	-72.75	75	39-75
14S 37E 19 111	A.B. HENNINGTON	OGLL	-67.01	1-07	+.16	-41.15	50	-67.17	74	49-62,64-75
14S 37E 20 412	G.O. DURHAM	OGLL	-75.36	1-07	-.18	-33.30	45	-75.36	75	40-68,70-75
14S 37E 27 311	J.R. FORT	OGLL	-78.54	1-07	2.00	-35.13	48	-78.55	74	48-75
14S 37E 31 333	AMANDA MILLER	OGLL	-73.38	1-07	+.71	-44.80	50	-74.09	74	50-72,74-75
14S 38E 07 113	HEIDEL AND TAYLOR	OGLL	-79.15	1-07	-1.31	-40.73	50	-79.15	75	50-72,74-75
14S 38E 21 311	I.M. COX	OGLL	-57.22	1-08	+.36	-32.48	49	-57.58	74	49-75
14S 38E 27 313	GUY CAVE	OGLL	-62.19	1-08	-3.80	-38.30	51	-62.19	75	51-53,55-75
15S 31E 23 311	UNKNOWN	OGLL	-256.35	1-07	-.32	-248.49	57	-256.35	75	57-60,62-75
15S 32E 06 223	TEXACO	OGLL	-188.18	1-07	+.12	-188.10	68	-199.13	67	65-75
15S 33E 14 143	J. ETCHEVERRY	CGLL	-101.53B	1-08	-18.34	-82.51	73	-100.74	68	65-68,70-71,73-75
15S 35E 31 422	JOE PRICE	CGLL	-57.66	1-08	-.19	-54.14	51	-57.66	75	49-58,60-66,68-75
15S 36E 01 311	J.W. SCOTT	OGLL	-73.24	1-07	-	-43.60	49	-73.24	75	49-73,75
15S 36E 05 211	J.P. CAUDILL	OGLL	-74.76	1-07	-.78	-52.73	51	-74.76	75	50-75
15S 36E 14 131	F.O. GRAHAM	OGLL	-61.47	1-08	+1.42	-42.38	45	-62.89	74	41-45,52-75
15S 36E 17 111	B.F. AND WALTER ADAMS	CGLL	-69.24	1-08	-1.61	-44.47	50	-69.24	75	49-69,71-75
15S 36E 20 133	E.B. PARSONS	OGLL	-69.94	1-08	+1.05	-45.25	49	-70.99	74	49-75
15S 36E 28 113	J.R. HALE	OGLL	-76.69	1-08	+.36	-44.53	47	-77.18	71	47-63,65-75
15S 36E 29 112	G.A. FISHER	CGLL	-72.57	1-08	+.02	-44.90	48	-72.59	74	48-75
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-65.72	1-08	-.45	-46.14	51	-66.20	71	49-75
15S 36E 34 111	B.J. HARKRIDER	CGLL	-72.53	1-08	-.27	-44.12	49	-75.74	71	48-58,60-66,68-71,73-75
15S 37E 04 113	W. ANDERSON	OGLL	-66.98	1-07	-.92	-37.10	50	-66.98	75	50-75

TABLE 11.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1975, CHANGE FROM JANUARY 1974 TO JANUARY 1975, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: OGLL, OGALLALA; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	75 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
15S 37E 07 111	D.H. CROCKETT	OGLL	-72.05	1-07	-	-46.13	50	-72.05	75	50-73,75
15S 37E 19 311	OTTO DEAN	OGLL	-63.37	1-08	+1.21	-41.09	50	-64.58	74	48-50,52,54-64,66-75
15S 37E 20 221	J.E. STEELE	OGLL	-68.41	1-08	+.04	-35.30	50	-68.45	74	49-75
15S 37E 21 334	R.W. DEAN	OGLL	-70.78	1-08	-.58	-29.20	45	-70.78	75	43-48,50-59,61-68,70-75
15S 37E 23 112	NELLIE FORT	OGLL	-51.91	1-08	-.56	-35.59	51	-51.91	75	51-75
15S 37E 27 111	C.E. RENSHAW	CGLL	-67.00	1-08	-1.98	-29.38	43	-67.00	75	42-44,46-75
15S 37E 29 111	T. WILKS	OGLL	-69.13	1-08	+.17	-39.08	51	-69.30	74	51-75
15S 37E 31 132	W.R. DEAN	OGLL	-62.79	1-08	+.05	-35.04	50	-63.20	73	49-75
15S 37E 33 313	YARBRO	OGLL	-70.82	1-08	-1.52	-35.97	50	-72.70	70	50-64,66-75
15S 38E 10 321	LOWE	OGLL	-43.02	1-07	-2.48	-31.84	51	-43.47	72	51-75
15S 38E 22 441	T.R. FORT	OGLL	-42.45	1-08	-.45	-28.72	42	-44.58	70	40-53,55-75
15S 38E 35 131	WAITS	OGLL	-54.88	1-08	-	-37.61	50	-54.88	75	50-58,60-73,75
16S 34E 20 233	MARATHON OIL CO.	OGLL	-108.14	1-07	-.39	-104.80	69	-108.54	70	61,65-75
16S 35E 13 112	C.E. HILBURN	OGLL	-52.59	1-08	+.23	-43.38	49	-54.58	73	49-75
16S 35E 24 111	T.G. HESTER	OGLL	-53.48	1-08	-1.83	-44.09	51	-55.63	66	51-75
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-43.59	1-08	+.28	-35.37	49	-43.87	74	49-75
16S 36E 04 322	LOVINGTON REC.	OGLL	-65.67	1-08	-.10	-65.49	72	-65.78	73	72-75
16S 36E 05 124	I.D. PHILLIPS	OGLL	-63.38	1-08	+.29	-50.09	48	-64.44	71	48-71,73-75
16S 36E 08 211	H.W. GILETTE	OGLL	-69.37	1-08	+.62	-53.67	48	-70.45	67	48-75
16S 36E 11 241	LOVINGTON COUNTRY CLB	OGLL	-71.30	1-07	-	-53.97	48	-84.85	71	48-53,56,58-61,63-64,67-69, 71-73,75
16S 36E 23 241	T.H. MONTEITH	OGLL	-58.19	1-07	+2.83	-46.68	55	-62.59	72	54-58,60-63,65-75
16S 37E 01 311	WILKS	CGLL	-74.54	1-08	+3.01	-34.99	50	-77.55	74	50-75
16S 37E 02 211	HARADA	CGLL	-73.64	1-08	-1.28	-38.33	50	-73.31	71	50-75
16S 37E 07 114	BEAL GLEASON	CGLL	-59.29	1-08	-7.15	-38.32	50	-59.29	75	50-75
16S 37E 11 111	H.J. TAYLOR	OGLL	-73.45	1-07	-.64	-31.93	49	-73.45	75	49-50,52-75
16S 37E 14 211	GREEN	OGLL	-73.55	1-07	-.10	-39.73	50	-73.66	72	50-75
16S 37E 25 111	R.L. DAVIS	OGLL	-62.63	1-07	-2.22	-36.87	50	-62.63	75	50-75
16S 38E 03 333	STATE OF N. MEX.	CGLL	-41.38	1-08	-1.04	-24.60	56	-44.11	71	54-75
16S 38E 27 111	WOODYS ACRES INC.	CGLL	-77.09	1-07	-2.60	-32.89	50	-77.09	75	50-75
16S 38E 30 211	MITCHELL	OGLL	-57.48	1-07	-.21	-36.82	51	-57.76	70	51-64,67-75
16S 38E 34 131A	WOODYS ACRES INC.	OGLL	-97.42	1-07	-2.83	-63.47	59	-97.42	75	59-75
16S 39E 29 233	SIMS AND HOLDER	CGLL	-83.54	1-07	-2.22	-54.85	50	-83.54	75	50-58,60-75
17S 33E 13 341	POTASH CO. OF AMERICA	OGLL	-165.46	1-08	-2.23	-147.49	53	-165.46	75	53-75
17S 34E 29 223	SOUTHWEST POTASH	OGLL	-145.67	1-08	-2.41	-133.01	69	-153.41	68	68-75
17S 34E 35 130	STATE OF N. MEX.	CGLL	-114.55	1-08	-2.77	-89.88	53	-114.55	75	44-58,60-75
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-34.62	1-08	+1.04	-33.05	49	-37.93	73	48-56,58-59,61-75
17S 37E 10 211	S.M. REILAND	OGLL	-55.95	1-07	-2.28	-32.87	49	-55.95	75	49-75
17S 37E 12 113	LEE STILES	OGLL	-71.80	1-07	-.15	-40.69	50	-71.80	75	50-75
17S 37E 34 111	C.G. GOODWIN	OGLL	-61.20	1-08	-.06	-42.13	57	-69.74	73	57-75
17S 38E 02 311	W.V. LAWRENCE	OGLL	-72.32	1-07	-1.64	-43.65	51	-72.32	75	49-75
17S 38E 07 111A	L.R. SEBRINGS	OGLL	-64.17	1-07	-1.94	-35.94	52	-64.17	75	52-75
17S 38E 08 211	J.J. HANDLEY JR.	OGLL	-67.99	1-07	-2.44	-36.46	50	-67.99	75	50-57,59-75
17S 38E 24 133	W.V. LAWRENCE	OGLL	-50.16	1-07	-.48	-41.30	50	-57.00	70	50-58,60-64,66-75
17S 38E 31 311	G.L. BEENE	CGLL	-50.32	1-07	-.56	-26.71	49	-50.55	71	49-71,74-75
17S 38E 34 113	W.E. BUSBY	OGLL	-48.18	1-07	-1.55	-24.78	44	-48.18	75	44-64,66-75
18S 34E 22 343	CONOCO OIL CO.	OGLL	-109.92	1-08	+.05	-109.22	67	-110.82	72	65-75
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-74.42	1-08	+.36	-69.49	56	-74.78	74	54-75
18S 35E 20 214	INT MIN AND CHEM CORP	OGLL	-73.36	1-08	+.37	-72.16	61	-73.73	74	54-58,60-75
18S 36E 27 111	STATE OF N. MEX.	OGLL	-44.95	1-08	+.65	-38.13	43	-45.60	74	43-75
18S 38E 03 313	G. MOONEY	CGLL	-55.42	1-07	-1.24	-29.68	52	-55.42	75	52-75
19S 36E 19 113	W.M. EVANS	VLFL	-15.89	1-07	+1.75	-15.06	47	-17.93	41	39-75
19S 36E 32 143	F.K. TURNER	OGLL	-24.91	1-07	+1.52	-24.91	75	-26.43	74	74-75
19S 37E 34 111	UNKNOWN	OGLL	-22.12	1-08	+.21	-22.12	75	-22.33	74	74-75
19S 38E 30 121	UNKNOWN	OGLL	-29.11	1-08	+1.41	-29.11	75	-30.52	74	74-75
19S 38E 34 222	J.O. COURSEY	OGLL	-52.60	1-07	+.17	-42.27	49	-55.05	72	49-59,61-75
20S 35E 01 221A	H.S. RECORD	VLFL	-25.92	1-07	-	-25.76	65	-27.00	71	59-73,75
20S 38E 18 344A	EARL KORNEGAY	CGLL	-55.40	1-07	+8.28	-46.76	66	-59.75	69	64-72,74-75

B Well pumped recently

TABLE 12.--Daily water levels in well 16S.36E.04.322, City of Lovington, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Drilled well completed in Ogallala Formation; depth 212 ft.; lsd is 3,926 ft. above msl. Highest water level 6500 Jan. 14, 16, and 24, 1973; lowest water level 67.11 Aug. 24, 1971; records available 1971-74.

Daily highest water level, in feet below land-surface datum, from recorder graph, 1974

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	65.67	65.52	65.53	65.52	65.54	65.68	65.84	66.07	66.29	66.23	65.90	65.74
2	65.66	65.53	65.50	65.49	65.54	65.67	65.83	66.12	66.29	66.23	65.91	65.74
3	65.59	65.50	65.50	65.49	65.54	65.62	65.85	66.13	66.29	66.21	65.90	65.73
4	65.56	65.52	65.50	65.52	65.53	65.66	65.87	66.14	66.30	66.19	65.90	65.72
5	65.55	65.50	65.52	65.50	65.54	65.67	65.89	66.14	66.30	66.20	65.96	65.30
6	65.55	65.52	65.50	65.48	65.55	65.66	65.87	66.14	66.29	66.20	65.96	65.71
7	65.56	65.54	65.53	65.50	65.55	65.66	65.89	66.15	66.31	66.21	65.90	65.71
8	65.55	65.55	65.53	65.50	65.55	65.66	65.89	66.15	66.30	66.19	65.91	65.73
9	65.55	65.54	65.53	65.50	65.53	65.70	65.91	66.16	66.30	66.19	65.89	65.30
10	65.56	65.52	65.52	65.49	65.55	65.70	65.91	66.16	66.29	66.14	65.89	65.60
11	65.57	65.50	65.54	65.48	65.55	65.70	65.92	66.18	66.08	66.15	65.91	65.60
12	65.56	65.52	65.55	65.50	65.57	65.70	65.93	66.18	66.29	66.16	65.81	65.60
13	65.52	65.52	65.50	65.50	65.54	65.70	65.96	66.22	66.31	66.12	65.84	65.20
14	65.57	65.50	65.53	65.50	65.55	65.73	65.97	66.20	66.31	66.11	65.80	65.27
15	65.52	65.54	65.54	65.51	65.56	65.72	65.97	66.22	66.30	66.13	65.80	65.26
16	65.50	65.50	65.54	65.50	65.57	65.76	65.97	66.23	66.30	66.13	65.80	65.21
17	65.50	65.51	65.53	65.52	65.58	65.74	65.98	66.24	66.30	66.12	65.80	65.60
18	65.54	65.51	65.52	65.50	65.60	65.70	66.00	66.24	66.29	66.12	65.71	65.60
19	65.53	65.50	65.53	65.52	65.61	65.77	66.03	66.25	66.29	66.11	65.80	65.64
20	65.50	65,51	65.53	65.50	65.61	65.78	66.02	66.24	66.29	66.10	65.80	65.61
21	65.50	65.55	65.53	65.50	65.63	65.73	66.03	66.26	66.29	66.09	65.70	65.22
22	65.52	65.50	65.10	65.50	65.60	65.73	66.03	66.27	66.29	66.10	65.70	65.20
23	65.55	65.53	65.53	65.50	65.60	65.78	66.04	66.10	66.26	66.07	65.70	65.20
24	65.56	65.57	65.54	65.52	65.60	65.79	66.04	66.27	66.26	66.06	65.82	65.60
25	65.52	65.55	65.54	65.50	65.60	65.80	66.04	66.28	66.24	66.09	65.70	65.20
26	65.50	65.53	65.54	65.50	65.60	65.80	66.05	66.27	66.20	66.06	65.70	65.20
27	65.50	65.50	65.53	65.50	65.60	65.81	66.06	66.28	66.20	66.00	65.36	65.60
28	65.50	65.51	65.53	65.53	65.60	65.82	66.08	66.28	66.23	65.98	65.70	65.11
29	65.50	-	65.53	65.53	65.60	65.83	66.09	66.28	66.26	65.99	65.70	65.11
30	65.50	-	65.51	65.55	65.61	65.83	66.10	66.29	66.25	65.99	65.70	65.10
31	65.54	-	65.51	-	65.62	-	66.10	66.29	-	65.91	-	65.51

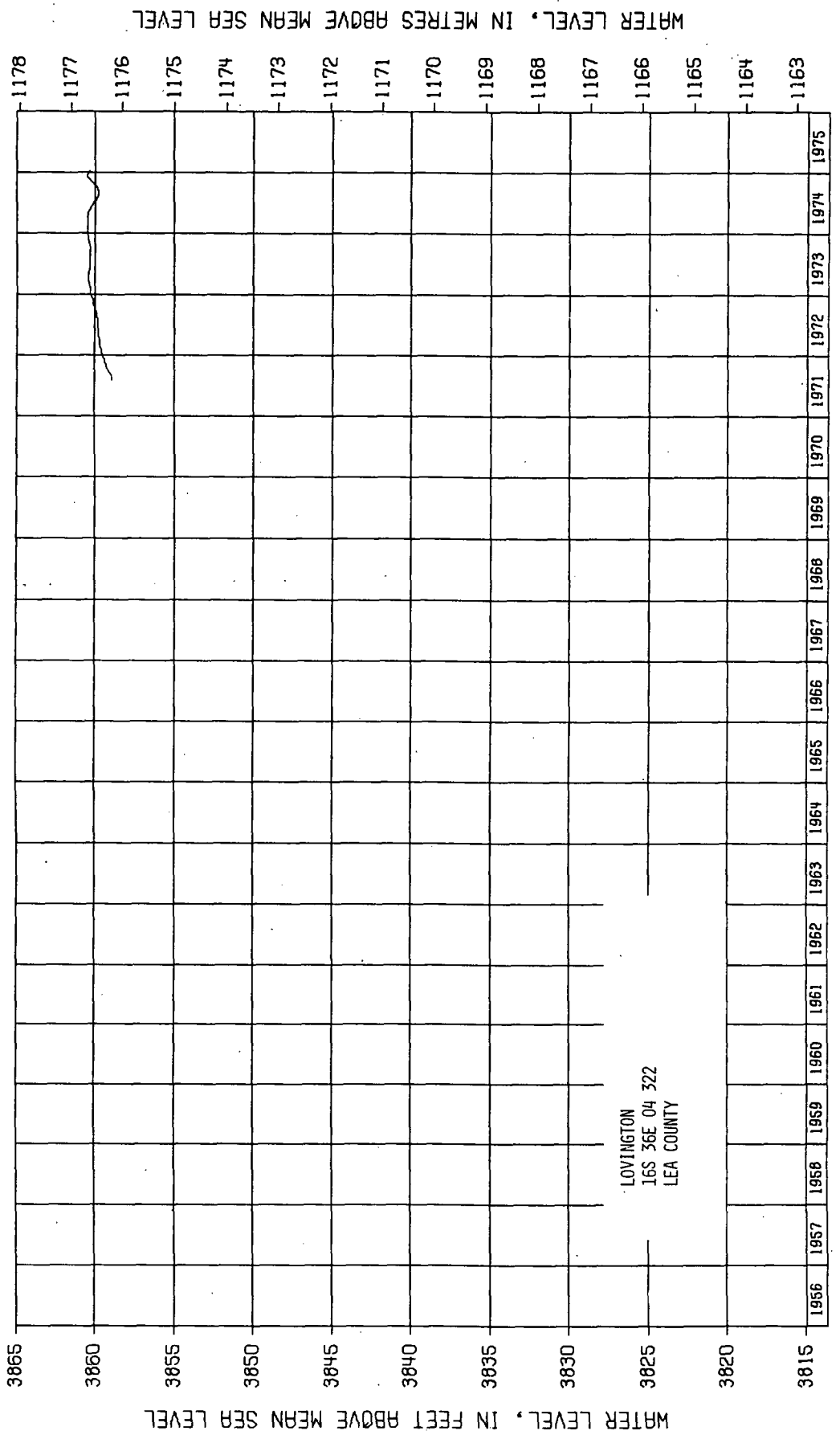


FIGURE 6.--Mean-monthly water level in well 16S.36E.04.322, Tatum-Lovington-Hobbs area, Lea County, N. Mex.

BASIC DATA REPORT

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1975

By
J. D. Hudson - U.S. Geological Survey

With

A bibliography of papers and publications pertaining to ground water in New Mexico published or released to the open file in 1975, with additions from 1886-1974

By
R.L. Borton and D.M. Jones
State Engineer Office

1976

TABLE 7.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY OR FEBRUARY 1976, CHANGE FROM JANUARY 1975 TO JANUARY OR FEBRUARY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: CPLM, CAPITAN LIMESTONE; CGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
11S 32E 24 411	UNKNOWN	OGLL	-67.98	1-13	+.31	-65.85	61	-68.44	74	61,65-76
11S 33E 25 442	EPPERSON	OGLL	-33.48	1-13	+.33	-33.35	71	-34.02	66	53-76
12S 32E 03 433	UNKNOWN	OGLL	-51.57	1-13	-.16	-49.33	66	-51.57	76	65-76
12S 33E 28 211	B.C. ROACH	OGLL	-81.62	1-13	+.35	-81.62	76	-82.25	67	61,65-76
12S 34E 11 413	A.D. JONES	OGLL	-33.42	1-13	+.28	-29.78	50	-33.70	75	49-76
12S 34E 35 411	A.D. JONES	OGLL	-36.34	1-14	+.58	-35.62	49	-59.00	62	48-76
12S 37E 06 131	UNKNOWN	OGLL	-20.98	1-13	+.36	-20.98	76	-23.20	74	74-76
12S 37E 20 343	ALVIN BRECKON	OGLL	-20.94A	1-13	-.07	-20.47	73	-26.63	55	54-76
12S 38E 04 312	G.C. COPELAND	OGLL	-38.92	1-13	+.76	-38.92	76	-43.35	41	41-76
13S 32E 25 214	N.R. GROSS	OGLL	-142.78	1-13	+.08	-142.73	64	-143.34	55	53-60,62-76
13S 34E 21 111	LEON RICE	OGLL	-62.97	1-13	-.85	-62.12	75	-64.77	68	65-69,71-76
13S 35E 02 111A	R.W. DUNCAN	OGLL	-28.82	1-14	-.57	-26.53	56	-31.50	74	53-72,74-76
13S 35E 19 211	ELKAN	OGLL	-47.69	1-14	-	-44.75	46	-79.48	40	39-50,52-74,76
13S 35E 35 311	UNKNOWN	OGLL	-45.86	1-14	+.32	-45.86	76	-46.39	73	73-76
13S 36E 21 133	UNKNOWN	OGLL	-63.89	1-13	+.31	-59.20	74	-64.20	75	74-76
13S 36E 26 324	IONA MC CLISH	OGLL	-80.56B	1-13	-4.36	-42.24	49	-76.20	75	49-76
13S 37E 04 422	BRADY LOWE	OGLL	-36.56B	1-13	-.87	-33.83	43	-39.66	65	40-41,43-47,49-69,71-72,74-76
13S 37E 04 422										
13S 37E 09 111	A.P. BRECKON	OGLL	-41.23A	1-13	-	-36.33	48	-41.49	68	46,48-74,76
13S 37E 28 413	J.B. AND J.D. DOREN	OGLL	-61.45	1-13	-.90	-31.70	45	-61.45	76	45-76
13S 38E 06 341	J.W. ANDERSON	OGLL	-67.67B	1-13	-6.75	-43.02	45	-63.40	72	40-65,67-76
14S 33E 35 133	AMERADA PETROL. CORP.	OGLL	-100.56	1-13	+.11	-100.56	76	-101.11	61	60-76
14S 35E 06 211	UNKNOWN	OGLL	-43.55	1-14	+1.65	-43.55	76	-45.20	75	75-76
14S 35E 23 313	PROPST AND ANDERSON	OGLL	-39.79	1-14	+3.71	-37.56	62	-43.50	75	54-76
14S 35E 25 241	M.J. WIGGINS	OGLL	-64.88	1-14	-2.66	-43.30	50	-64.88	76	49-76
14S 35E 30 134	W.A. ANDERSON	OGLL	-50.06	1-14	-.11	-43.81	62	-50.06	76	39-69,71-76
14S 35E 33 433	W.A. ANDERSON	OGLL	-45.76	1-14	+.42	-39.65	52	-46.60	74	42-76
14S 36E 01 211	G.T. HANNERS	OGLL	-81.80	1-13	-1.68	-33.80	48	-81.80	76	48-52,54-76
14S 36E 02 113	LESLIE ESTEP	OGLL	-85.94	1-13	-1.26	-48.44	50	-85.94	76	49-76
14S 36E 06 421	RICHARDSON	OGLL	-60.14	1-14	-.69	-39.03	44	-60.90	69	39-44,46-55,57-76
14S 36E 09 111	KARL CLAYTON	OGLL	-76.40	1-13	-3.63	-38.36	44	-76.40	76	39-76
14S 36E 10 212	KARL CLAYTON	OGLL	-84.36	1-13	-2.71	-47.98	49	-84.36	76	49-76
14S 36E 21 111	MAYO	OGLL	-64.81	1-13	-.32	-42.69	49	-64.81	76	49-76
14S 36E 32 121	E.T. HOWELL	OGLL	-66.37	1-14	+.80	-53.58	49	-70.09	71	49-66,68-76
14S 36E 33 131	BELL	OGLL	-79.76	1-14	-.38	-56.92	50	-79.76	76	49-76
14S 36E 35 111A	FREDIA WRIGHT	OGLL	-69.07	1-14	+.97	-69.07	76	-70.04	75	74-76
14S 37E 03 114	HOBBS AND HEIDEL	OGLL	-66.07	1-13	+3.24	-44.81	52	-71.67	72	52-76
14S 37E 05 211	KNOLL	OGLL	-70.92	1-13	-1.01	-31.76	49	-71.47	74	49-76
14S 37E 07 311	E.L. HARRISON	OGLL	-77.50	1-13	-.30	-42.82	49	-77.50	76	49-76
14S 37E 08 113	HARBISON	OGLL	-72.50	1-13	+.47	-37.93	50	-73.10	74	49-76
14S 37E 13 311	W.T. CARTER	OGLL	-88.30	1-13	-1.44	-35.57	49	-88.30	76	49-76
14S 37E 14 111	GOFF AND JOHNSON	OGLL	-87.32	1-13	-.50	-36.12	49	-87.32	76	48-49,51-76
14S 37E 16 421	C.A. FORT	OGLL	-73.43	1-13	-.68	-28.86	43	-73.43	76	39-76
14S 37E 19 111	A.B. HENNINGTON	OGLL	-67.50	1-13	-.49	-41.15	50	-67.50	76	49-62,64-76
14S 37E 20 412	G.O. DURHAM	OGLL	-76.79	1-13	-1.43	-33.30	45	-76.79	76	39-68,70-76
14S 37E 27 311	J.R. FORT	OGLL	-77.68	1-13	+.86	-35.13	48	-78.55	74	48-76
14S 37E 31 333	AMANDA MILLER	OGLL	-74.40	1-14	-1.02	-44.80	50	-74.40	76	49-72,74-76
14S 38E 07 113	HEIDEL AND TAYLOR	OGLL	-78.69	1-13	+.46	-40.73	50	-79.15	75	50-72,74-76
14S 38E 21 311	I.M. COX	OGLL	-57.56	1-14	-.34	-32.48	49	-57.58	74	49-76
14S 38E 27 313	GUY CAVE	OGLL	-64.92	1-13	-2.73	-38.30	51	-64.92	76	51-53,55-76
14S 38E 31 111	ALDRIDGE	OGLL	-65.91	1-14	-	-37.45	50	-65.91	76	48-74,76
15S 32E 06 223	TEXACO	OGLL	-188.40	1-13	-.22	-188.10	68	-189.13	67	65-76
15S 33E 14 143	J. ETCHEVERRY	OGLL	-99.94	1-13	+1.59	-82.51	73	-100.74	68	65-68,70-71,73-76
15S 35E 31 422	JOE PRICE	OGLL	-57.86	1-14	-.20	-54.14	51	-57.86	76	49-58,60-66,68-76
15S 36E 01 311	J.W. SCOTT	OGLL	-73.17	1-14	+.07	-43.60	49	-73.24	75	49-73,75-76
15S 36E 05 211	J.P. CAUDILL	OGLL	-73.32	1-14	+1.44	-52.73	51	-74.76	75	50-76
15S 36E 14 131	F.O. GRAHAM	OGLL	-63.03	1-14	-1.56	-42.38	45	-63.03	76	41-45,52-76
15S 36E 17 111	B.F. AND WALTER ADAMS	OGLL	-70.29	1-14	-1.05	-44.47	50	-70.29	76	49-69,71-76
15S 36E 20 133	E.B. PARSONS	OGLL	-77.03	1-14	-7.09	-45.25	49	-77.03	76	49-76
15S 36E 28 113	J.R. HALE	OGLL	-76.58	1-14	+.11	-44.53	47	-77.18	71	46-63,65-76
15S 36E 29 112	G.A. FISHER	OGLL	-74.71	1-14	-2.14	-44.90	48	-74.71	76	48-76
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-66.27	1-14	-.55	-46.14	51	-66.27	76	49-76
15S 36E 34 111	B.J. HARKRIDER	OGLL	-71.65	1-14	+.88	-44.12	48	-75.74	71	48-58,60-66,68-71,73-76
15S 37E 04 113	W. ANDERSON	OGLL	-67.57	1-13	-.59	-37.10	50	-67.57	76	50-76
15S 37E 07 111	D.M. CROCKETT	OGLL	-70.72	1-13	+1.33	-46.13	50	-72.05	75	50-73,75-76

A well being pumped

B well pumped recently

TABLE 7.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY OR FEBRUARY 1976, CHANGE FROM JANUARY 1975 TO JANUARY OR FEBRUARY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: CPLM, CAPITAN LIMESTONE; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
15S 37E 19 311	OTTO DEAN	OGLL	-64.17	1-14	-.80	-41.09	50	-64.58	74	48-50,52,54-64,66-76
15S 37E 20 221	J.E. STEELE	OGLL	-69.49	1-14	-1.08	-35.30	50	-69.49	76	49-76
15S 37E 23 112	NELLIE FORT	OGLL	-53.31	1-14	-1.40	-35.59	51	-53.31	76	51-76
15S 37E 27 111	C.E. RENSHAW	OGLL	-69.06	1-14	-2.06	-29.38	43	-69.06	76	42-44,46-76
15S 37E 29 111	T. WILKS	OGLL	-70.22	1-14	-1.09	-39.08	51	-70.22	76	51-76
15S 37E 31 132	W.R. DEAN	OGLL	-66.22	1-14	-3.43	-35.04	50	-66.22	76	49-76
15S 37E 33 313	YARBRO	OGLL	-72.43	1-14	-1.61	-35.97	50	-72.70	70	50-64,66-76
15S 38E 10 321	LOWE	OGLL	-44.33	1-14	-1.31	-31.84	51	-44.33	76	51-76
15S 38E 22 441	T.R. FORT	OGLL	-44.01	1-14	-1.56	-28.72	42	-44.58	70	39-53,55-76
15S 38E 35 131	WAITS	OGLL	-57.08	1-14	-2.20	-37.61	50	-57.08	76	50-58,60-73,75-76
16S 34E 20 233	MARATHON OIL CO.	OGLL	-108.48	1-13	-.34	-104.80	68	-108.54	70	61,65-76
16S 35E 13 112	C.E. HILBURN	OGLL	-52.31	1-14	+.28	-43.38	49	-54.58	73	48-76
16S 35E 24 111	T.G. HESTER	OGLL	-50.84	1-14	+2.64	-44.09	51	-55.63	66	51-76
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-42.78	1-14	+.81	-35.37	49	-43.87	74	49-76
16S 36E 04 322	LOVINGTON REC.	OGLL	-65.30	1-14	+.37	-65.30	76	-66.49	72	71-76
16S 36E 05 124	I.D. PHILLIPS	OGLL	-63.21	1-14	+.17	-50.09	48	-64.44	71	48-71,73-76
16S 36E 08 211	H.W. GILETTE	OGLL	-68.94	1-14	+.43	-53.67	48	-70.45	67	48-76
16S 36E 11 241	LOVINGTON COUNTRY CLB	OGLL	-79.26B	1-14	-7.96	-53.97	48	-84.85	71	48-53,56,58-61,63-64,67-69,
16S 36E 11 241										71-73,75-76
16S 36E 23 241	T.H. MONTEITH	OGLL	-57.27	1-14	+.92	-46.68	55	-62.59	72	54-58,60-63,65-76
16S 37E 01 311	WILKS	OGLL	-75.45	1-14	-.91	-34.99	50	-77.55	74	50-76
16S 37E 02 211	HARADA	OGLL	-74.29	1-14	-.65	-38.33	50	-74.29	76	50-76
16S 37E 07 114	BEAL GLEASON	OGLL	-58.51	1-14	+.78	-38.32	50	-59.29	75	50-76
16S 37E 11 111	H.J. TAYLOR	OGLL	-72.46	1-14	+.99	-31.93	49	-73.45	75	49-76
16S 37E 14 211	GREEN	OGLL	-72.17	1-14	+1.38	-39.73	50	-73.66	72	50-76
16S 37E 25 111	R.L. DAVIS	OGLL	-71.97B	1-14	-9.34	-36.87	50	-62.63	75	50-76
16S 38E 03 333	STATE OF N. MEX.	OGLL	-41.25	1-14	+.13	-24.60	56	-44.11	71	53-76
16S 38E 27 111	WOODYS ACRES INC.	OGLL	-80.04	1-14	-2.95	-32.89	50	-80.04	76	50-76
16S 38E 30 211	MITCHELL	OGLL	-56.53	1-14	+.95	-36.82	51	-57.76	70	51-64,67-76
16S 38E 34 131A	WOODYS ACRES INC.	OGLL	-98.77	1-14	-1.35	-63.47	59	-98.77	76	52,58-76
16S 39E 29 233	SIMS AND HOLDER	OGLL	-84.86	1-14	-1.32	-54.85	50	-84.86	76	50-58,60-76
17S 33E 13 341	POTASH CO. OF AMERICA	OGLL	-167.18	1-13	-1.72	-146.05	53	-167.18	76	52-76
17S 34E 28 223	SOUTHWEST POTASH	OGLL	-148.57	1-13	-2.90	-133.01	69	-153.41	68	68-76
17S 34E 35 130	STATE OF N. MEX.	OGLL	-119.34	1-13	-4.79	-89.88	53	-119.34	76	43-76
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-38.24	1-13	-3.62	-33.05	49	-38.24	76	47-76
17S 37E 10 211	S.M. REILAND	OGLL	-52.27	1-14	+3.68	-32.87	49	-55.95	75	49-76
17S 37E 12 113	LEE STILES	OGLL	-72.52	1-14	-.72	-40.69	50	-72.52	76	50-76
17S 37E 34 111	C.G. GOODWIN	OGLL	-60.71	1-14	+.49	-42.13	57	-69.74	73	57-76
17S 38E 02 311	W.V. LAWRENCE	OGLL	-73.35	1-14	-1.03	-43.65	51	-73.35	76	49-76
17S 38E 07 111A	L.R. SEBRINGS	OGLL	-63.49	1-14	+.68	-35.94	52	-64.17	75	51-76
17S 38E 08 211	J.J. HANDLEY JR.	OGLL	-67.18	1-14	+.81	-36.46	50	-67.99	75	50-57,59-76
17S 38E 24 133	W.V. LAWRENCE	OGLL	-50.55	1-14	-.39	-41.30	50	-57.00	70	50-58,60-64,66-76
17S 38E 31 311	G.L. BEENE	OGLL	-51.33	1-14	-1.01	-26.71	49	-51.33	76	48-71,74-76
17S 38E 34 113	W.E. BUSBY	OGLL	-49.79	1-14	-1.61	-24.78	44	-49.79	76	43-76
18S 34E 22 343	CONOCO OIL CO.	OGLL	-109.99	1-13	-.07	-109.22	67	-110.82	72	65-76
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-74.62	1-13	-.20	-69.49	56	-74.78	74	53-76
18S 35E 20 214	INT MIN AND CHEM CORP	OGLL	-73.68	1-13	-.32	-72.16	61	-73.73	74	53-58,60-76
18S 36E 27 111	STATE OF N. MEX.	OGLL	-44.63	1-13	+.32	-38.13	43	-45.60	74	42-76
18S 38E 03 313	G. MOONEY	OGLL	-56.94	1-14	-1.52	-29.68	52	-56.94	76	52-76
19S 32E 31 110	MIDDLETON FEDERAL REC	CPLM	-586.15	1-27	+66.29	-495.45	67	-652.98	75	66-76
19S 36E 19 113	W.M. EVANS	VLFL	-15.63	1-13	+.26	-15.06	47	-17.93	41	39-76
19S 36E 32 143	F.K. TURNER	OGLL	-24.05	1-13	+.86	-24.05	76	-26.43	74	74-76
19S 37E 34 111	UNKNOWN	OGLL	-20.07A	1-13	+2.05	-22.12	75	-22.33	74	74-76
19S 38E 30 121	UNKNOWN	OGLL	-28.53	1-13	+.58	-28.53	76	-30.52	74	74-76
19S 38E 34 222	J.O. COURSEY	OGLL	-49.60	1-13	+3.00	-42.27	49	-55.05	72	49-59,61-76
20S 33E 18 123	UNKNOWN	TRSC	-129.54	1-13	-	-129.54	76	-129.54	76	68,76
20S 33E 20 222	UNKNOWN	TRSC	-131.65	1-13	-	-36.84	71	-131.65	76	68,71,76
20S 35E 01 221A	H.S. RECORD	VLFL	-22.90A	1-13	+3.02	-25.76	65	-27.00	71	57-73,75-76
20S 39E 18 344A	EARL KORNEGAY	OGLL	-53.52A	1-13	+1.88	-46.76	66	-59.75	69	64-72,74-76
21S 34E 23 310	S. WILSON DEEP REC.	CPLM	-1164.70	1-23	-4.86	-1030.70	67	-1164.70	76	67-76
23S 25E 28 120	N. CUSTER MT. REC.	CPLM	-980.54	1-23	-3.51	-847.05	67	-980.54	76	67-76
24S 36E 20 210	FEDERAL DAVISON REC.	CPLM	-1239.43	1-23	-8.51	-1099.36	68	-1239.43	76	66-76
26S 36E 04 230	SOUTHWEST JAL REC.	CPLM	-878.70	1-23	+.71	-753.40	67	-879.41	75	66-76

A well being pumped

B well pumped recently

TABLE 8.--Daily water levels in well 16S.36E.04.322, City of Lovington, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Drilled well completed in Ogallala Formation; depth 212 ft.; lsd is 3,926 ft. above msl. Highest water level 65.00 Jan. 14, 16, and 24, 1973; lowest water level 67.11 Aug. 24, 1971; records available 1971-75.

Daily highest water level, in feet below land-surface datum, from recorder graph, 1975

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	65.11	65.57	65.52		65.41	65.51	65.57	65.53	65.44	65.41	65.36	65.31
2	65.50	65.56	65.51		65.41	65.52	65.56	65.53	65.44	65.40	65.36	65.31
3	65.50	65.56	65.51		65.41	65.51	65.56	65.53	65.44	65.40	65.37	65.31
4	65.50	65.56	65.51		65.39	65.50	65.56	65.54	65.43	65.38	65.37	65.30
5	65.51	65.55	65.50		65.39	65.51	65.55	65.53	65.43	65.39	65.34	65.30
6	65.53	65.57	65.50		65.39	65.52	65.55	65.53	65.43	65.38	65.33	65.32
7	65.12	65.54	65.52		65.41	65.52	65.55	65.53	65.43	65.36	65.34	65.29
8	65.55	65.55	65.49		65.41	65.52	65.56	65.52	65.43	65.39	65.33	65.30
9	65.60	65.54	65.48		65.42	65.51	65.56	65.52	65.42	65.40	65.33	65.29
10	65.62	65.53	65.49		65.42	65.51	65.56	65.52	65.42	65.39	65.34	65.28
11	65.66	65.56	65.49		65.41	65.52	65.55	65.52	65.41	65.37	65.34	65.28
12	65.68	65.56	65.51		65.41	65.54	65.55	65.51	65.43	65.37	65.38	65.27
13	65.66	65.53	65.50		65.40	65.54	65.55	65.50	65.42	65.37	65.34	65.27
14	65.64	65.53	65.49		65.44	65.52	65.55	65.51	65.42	65.37	65.33	65.29
15	65.63	65.52	65.49		65.44	65.52	65.55	65.51	65.41	65.39	65.32	65.31
16	65.64	65.52	65.49		65.44	65.52	65.55	65.50	65.41	65.36	65.33	65.28
17	65.61	65.52	65.49		65.44	65.52	65.55	65.50	65.39	65.39	65.32	65.32
18	65.59	65.54	65.49		65.43	65.52	65.54	65.50	65.40	65.38	65.31	65.31
19	65.63	65.53	65.49		65.41	65.53	65.54	65.50	65.41	65.38	65.33	65.29
20	65.58	65.51	65.48		65.42	65.55	65.54	65.49	65.40	65.37	65.33	65.31
21	65.59	65.52	65.48		65.44	65.53	65.55	65.50	65.40	65.35	65.32	65.28
22	65.64	65.53	65.46		65.45	65.54	65.54	65.50	65.41	65.34	65.34	65.29
23	65.59	65.53	65.48	65.40	65.45	65.55	65.54	65.47	65.41	65.34	65.31	65.27
24	65.57	65.52	65.49	65.40	65.49	65.55	65.55	65.44	65.41	65.39	65.30	65.28
25	65.58	65.53	65.49	65.40	65.48	65.55	65.55	65.45	65.40	65.39	65.30	65.29
26	65.57	65.53		65.40	65.49	65.55	65.55	65.47	65.39	65.35	65.31	65.28
27	65.58	65.51		65.40	65.50	65.55	65.54	65.49	65.40	65.35	65.29	65.26
28	65.57	65.52		65.40	65.47	65.55	65.53	65.46	65.39	65.39	65.28	65.29
29	65.57	-		65.39	65.47	65.55	65.53	65.43	65.39	65.39	65.30	65.29
30	65.57	-		65.39	65.51	65.56	65.54	65.45	65.40	65.35	65.34	65.26
31	65.58	-		-	65.51	-	65.53	65.45	-	65.33	-	65.25

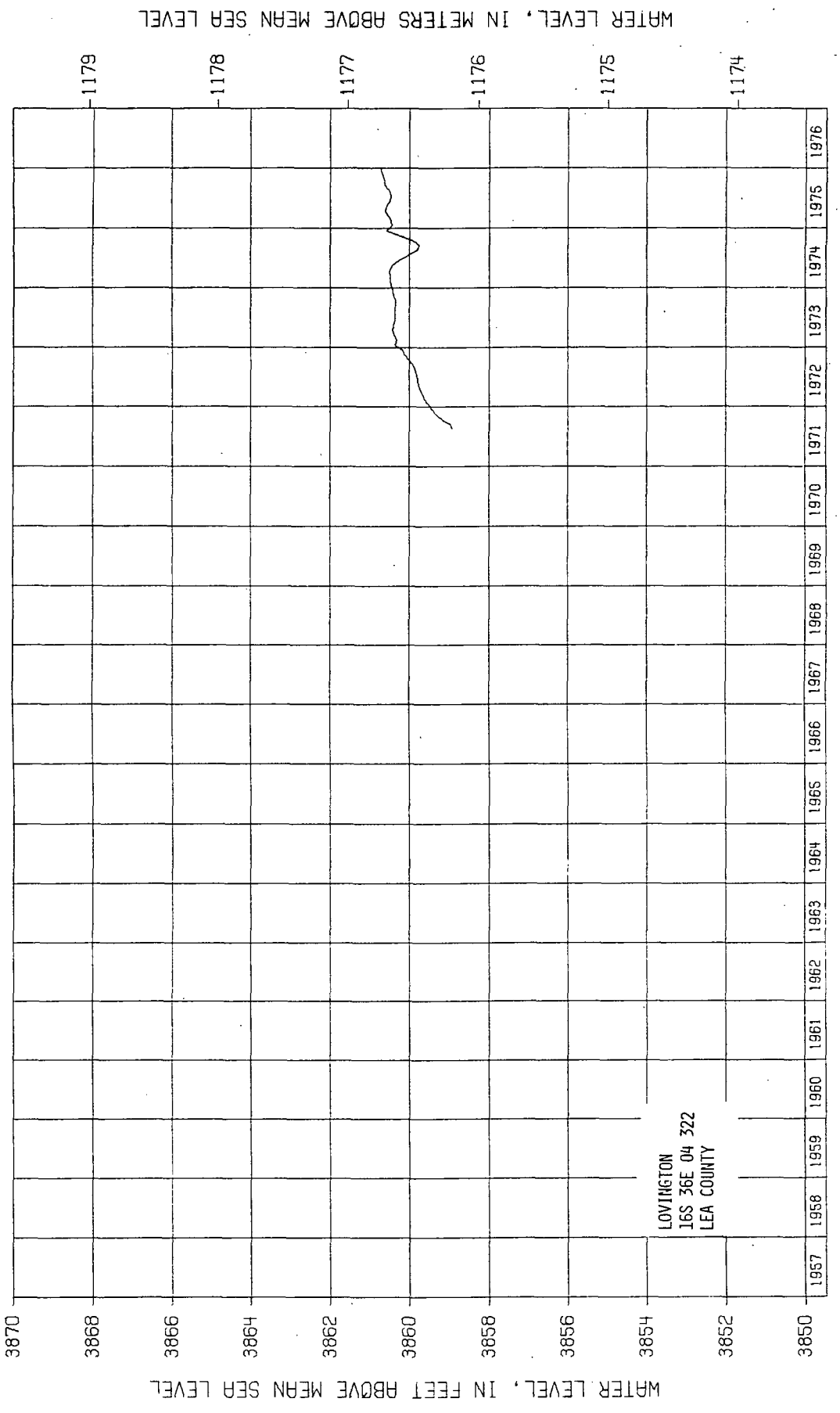


FIGURE 6.--Average-monthly water level in well 16S.36E.04.322, Tatum-Lovington-Hobbs area, Lea County, N. Mex.

TABLE 9.--Daily water levels in well 17S.33E.13.341, Potash Company of America, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Drilled well completed in Ogallala Formation; depth 252 ft,; lsd is 4,124 ft. above msl. Highest water level 146.05 Feb. 1, 1953; lowest water level 166.82 Dec. 6, 1975; records available 1952-75.

Daily highest water level, in feet below land-surface datum, from recorder graph, 1975

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1				165.88	165.52	165.77	166.09	166.31	166.42	166.67	166.59	166.66
2				165.99	165.50	165.74	166.10	166.31	166.44	166.61	166.58	166.73
3				165.90	165.58	165.64	166.07	166.32	166.45	166.57	166.57	166.69
4				165.78	165.50	165.60	166.06	166.34	166.45	166.51	166.50	166.65
5				165.82	165.58	165.67	166.05	166.33	166.39	166.50	166.40	166.71
6				165.78	165.73	165.67	166.05	166.32	166.40	166.55	166.39	166.82
7				165.68	165.72	165.62	166.05	166.32	166.39	166.48	166.40	166.66
8				165.79	165.72	165.62	166.00	166.34	166.38	166.58	166.33	166.61
9				165.78	165.75	165.68	166.03	166.29	166.39	166.60	166.45	166.63
10				165.69	165.76	165.71	166.02	166.31	166.33	166.51		166.60
11				165.70	165.77	165.76	166.02	166.32	166.29	166.43		166.57
12				165.70	165.76	165.67	166.01	166.32	166.39	166.42		166.57
13				165.71	165.84	165.69	166.01	166.34	166.37	166.41		166.51
14				165.66	165.89	165.70	166.03	166.36	166.37	166.40		166.55
15				165.61	165.88	165.82	166.08	166.36	166.37	166.54		166.64
16				165.51	165.84	165.75	166.08	166.36	166.34	166.43	166.41	166.49
17				165.46	165.92	165.85	166.08	166.36	166.33	166.53	166.43	166.67
18				165.65	165.92	165.90	166.08	166.37	166.39	166.49	166.43	166.49
19				165.67	165.85	165.98	166.06	166.38	166.39	166.43	166.49	166.55
20			165.68	165.55	165.84	165.93	166.13	166.42	166.48	166.50		166.57
21			165.72	165.56	165.93	165.93	166.12	166.43	166.53	166.47		166.45
22			165.64	165.47	165.88	165.95	166.13	166.43	166.52	166.44		166.47
23			165.67	165.43	165.94	165.99	166.12	166.42	166.49	166.46		166.47
24			165.76	165.46	165.87	166.01	166.19	166.39	166.52	166.65		166.47
25			165.65	165.44	165.87	165.96	166.17	166.43	166.51	166.65		166.48
26			165.61	165.40	165.99	165.99	166.18	166.46	166.46	166.53		166.55
27			165.82	165.42	165.86	166.04	166.18	166.45	166.56	166.52		166.60
28			165.85	165.45	165.77	166.05	166.18	166.44	166.56	166.74		166.72
29		-	165.75	165.38	165.85	166.08	166.18	166.39	166.54	166.68		166.72
30		-	165.64	165.63	165.91	166.06	166.23	166.37	166.62	166.48		166.65
31		-	165.65	-	165.75	-	166.25	166.42	-	166.43	-	166.60

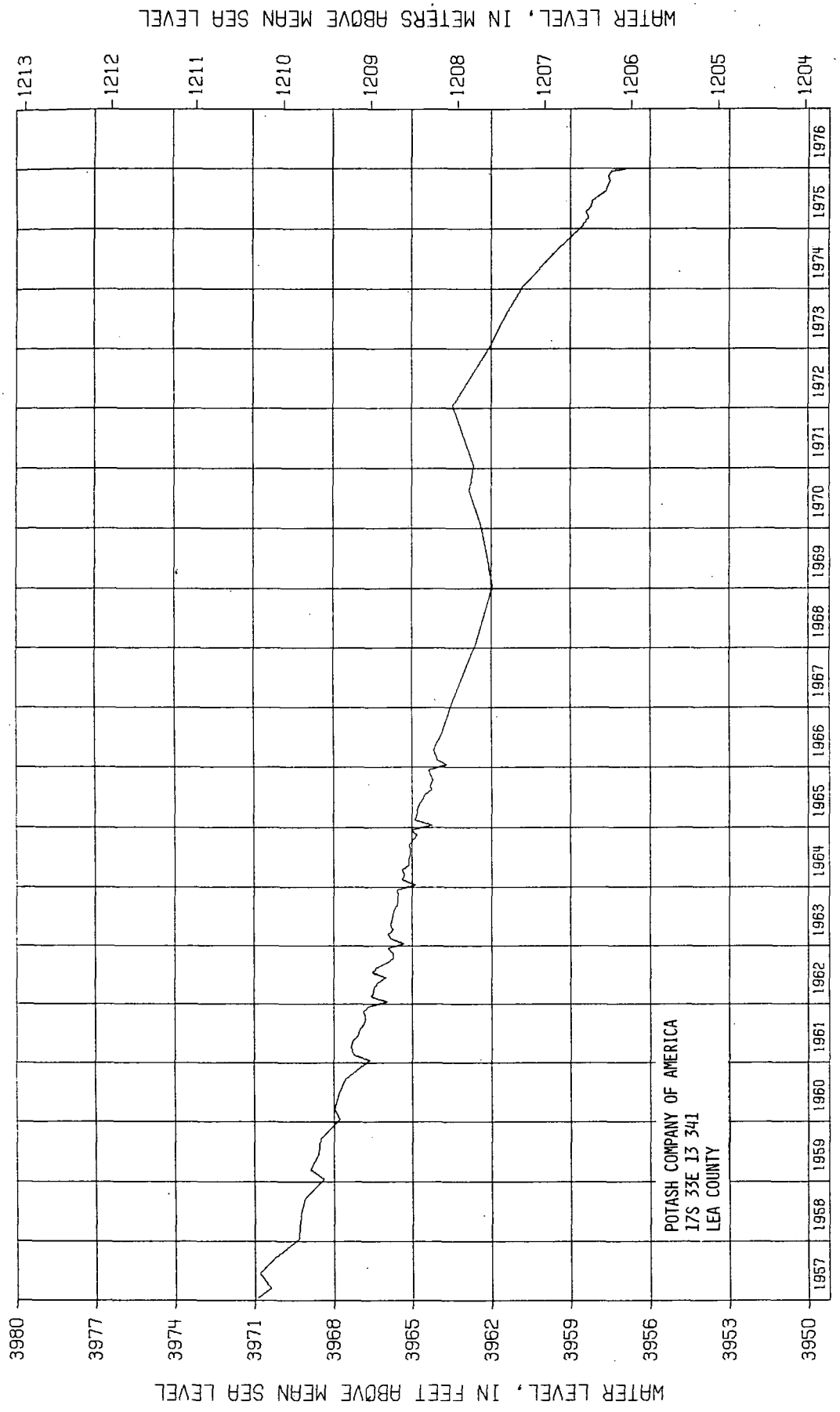


FIGURE 7.--Average-monthly water level in well 17S.33E.13.341, Tatum-Lovington-Hobbs area, Lea County, N. Mex.

BASIC DATA REPORT

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1976

By
J. D. Hudson - U.S. Geological Survey

With

A bibliography of papers and publications pertaining to ground water in New Mexico published or released to the open file in 1976, with additions from 1873-1975

By
R.L. Borton and D.M. Jones
State Engineer Office

1978

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
09S 31E 36 343	O. W. MEDGECOXE	OGLL	-128.93	2-27	+2.77	-128.93	76	-128.93	76	71,76
09S 32E 11 244	LEWIS COOPER	OGLL	-106.27B	2-26	+1.90	-108.17B	71	-108.17B	71	71,76
09S 32E 21 212	LEWIS COOPER	OGLL	-37.78	2-26	+2.84	-37.78	76	-37.78	76	71,76
09S 32E 24 121	LEWIS COOPER	OGLL	-70.60	2-27	+.55	-70.60	76	-70.60	76	71,76
09S 32E 25 113	J. MCGUFFIN	OGLL	-159.88	2-27	+29.98	-159.88	76	-159.88	76	71,76
09S 32E 31 412	CAPROCK RANCH	OGLL	-207.28B	2-27	-8.34	-198.94B	71	-198.94B	71	71,76
09S 32E 32 412	CAPROCK RANCH	OGLL	-183.22	2-27	+2.66	-183.22	76	-183.22	76	71,76
09S 33E 06 431	LEWIS COOPER	OGLL	-62.49	5-26	+7.11	-55.38B	71	-55.38B	71	71,76
09S 33E 13 442	GEORGIA DUNCAN	OGLL	-49.34C	5-27	-	-49.34C	76	-49.34C	76	76
09S 33E 14 442	UNKNOWN	OGLL	-54.09A	5-26	-3.22	-50.54B	54	-50.54B	54	54,71,76
09S 33E 21 441	UNKNOWN	OGLL	-185.70	5-26	+1.96	-187.66	71	-187.66	71	71,76
09S 33E 23 324	P. C. TOM	OGLL	-50.44	5-26	-.16	-50.80	54	-50.80	54	54,71,76
09S 33E 23 342	UNKNOWN	OGLL	-193.46	5-26	+25.04	-218.50B	71	-218.50B	71	71,76
09S 33E 29 114	J. MCGUFFIN	OGLL	-61.70A	2-27	-7.52	-54.18A	71	-54.18A	71	71,76
09S 33E 34 144	UNKNOWN	OGLL	-35.53	5-27	+31.47	-67.00B	71	-67.00B	71	71,76
09S 33E 36 244	UNKNOWN	OGLL	-56.20	5-27	-.21	-55.99	71	-55.99	71	71,76
09S 34E 15 143	MATTIE PRICE	OGLL	-196.31	5-28	+.11	-196.42A	71	-196.42A	71	71,76
09S 34E 17 342	PRUITT	OGLL	-49.15	5-27	+1.68	-50.83B	71	-50.83B	71	71,76
09S 34E 21 111	UNKNOWN	OGLL	-37.25	5-27	-1.35	-35.90	71	-35.90	71	71,76
09S 34E 26 213	CHARLIE WRIGHT	OGLL	-70.17	5-28	+.23	-72.79A	54	-72.79A	54	54,71,76
09S 34E 27 112	UNKNOWN	OGLL	-49.24	5-28	+1.37	-50.91	54	-50.91	54	54,71,76
09S 35E 18 311	UNKNOWN	OGLL	-154.51	5-28	-	-154.51	76	-154.51	76	76
09S 35E 20 133	UNKNOWN	OGLL	-154.95A	5-28	+.29	-155.24	71	-155.24	71	71,76
09S 35E 24 344	TIP BARNES	OGLL	-134.21	5-21	+2.53	-136.74B	71	-136.74B	71	71,76
09S 35E 26 333	KENNETH KINSOLVING	OGLL	-139.39	5-25	+3.75	-139.21	54	-139.21	54	54,71,76
09S 35E 35 113	C.W. KINSOLVING	OGLL	-138.64C	5-25	-	-138.64C	76	-138.64C	76	76
09S 36E 02 431	BILL BALDRIDGE	OGLL	-152.57	5-21	-	-152.57	76	-152.57	76	76
09S 36E 12 113	BILL BALDRIDGE	OGLL	-141.99	5-21	-	-141.99	76	-141.99	76	76
09S 36E 12 444	UNKNOWN	OGLL	-133.13	5-20	+9.99	-143.12	71	-143.12	71	71,76
09S 36E 27 113	SAWYER RANCH	OGLL	-128.05	5-21	+.66	-128.71C	71	-128.71C	71	71,76
09S 36E 27 431	SAWYER RANCH	OGLL	-122.64	5-21	-.22	-122.42	71	-122.42	71	71,76
09S 37E 15 122	PITCHFORK SCHOOL	OGLL	-164.85	5-20	+13.25	-178.10	71	-178.10	71	71,76
09S 37E 18 311	FRED BALDRIDGE	OGLL	-130.14	5-20	-	-130.14	76	-130.14	76	76
09S 37E 23 442	MACK GANDY	OGLL	-165.33	5-20	+13.57	-178.90	71	-178.90	71	71,76
09S 37E 26 143	MACK GANDY	OGLL	-113.69	5-20	-	-204.96	76	-204.96	76	76
09S 37E 32 443	MRS. D. SAWYER	OGLL	-136.45	5-20	-.09	-136.36B	71	-136.36B	71	71,76
09S 37E 34 313	RAYMOND LEWIS	QTAL	-152.70	5-20	-	-152.70	76	-152.70	76	76
09S 37E 35 124	R. M. LEWIS	OGLL	-125.14	5-20	+6.65	-131.79	71	-131.79	71	71,76
09S 38E 04 312	UNKNOWN	OGLL	-158.98	5-20	+.60	-159.58	71	-159.58	71	71,76
09S 38E 33 143	UNKNOWN	OGLL	-157.28	5-19	+.68	-157.96	71	-157.96	71	71,76
10S 31E 25 322	W. D. STERRETT	OGLL	-79.54	4-20	+1.70	-80.93B	66	-80.93B	66	66,71,76
10S 31E 26 332	W. D. STERRETT	OGLL	-174.54B	4-20	-2.53	-168.34B	61	-168.34B	61	61,71,76
10S 31E 26 334	W. D. STERRETT	OGLL	-45.83	4-20	+.37	-997.60	61	-997.60	61	61,66,71,76
10S 31E 26 344	W. D. STERRETT	OGLL	-88.13	4-20	+1.43	-89.05	66	-89.05	66	61,66,71,76
10S 31E 36 213	W. D. STERRETT	OGLL	-59.58	4-20	+1.98	-61.51B	61	-61.51B	61	61,71,76
10S 32E 15 122A	UNKNOWN	OGLL	-58.82	3-12	+.98	-59.80B	71	-59.80B	71	71,76
10S 32E 17 123	UNKNOWN	OGLL	-52.41A	3-12	+.29	-52.70B	71	-52.70B	71	71,76
10S 32E 18 431	CAPROCK RANCH	OGLL	-35.02	3-12	+2.83	-37.85	71	-37.85	71	71,76
10S 32E 20 342	CAPROCK RANCH	OGLL	-63.30	3-12	+.83	-64.13B	71	-64.13B	71	71,76
10S 32E 25 314	J. J. LANE	OGLL	-42.67A	4-28	+.67	-43.34B	71	-43.34B	71	71,76
10S 32E 29 113	CAPROCK RANCH	OGLL	-63.87	3-12	-.10	-63.77	71	-63.77	71	71,76
10S 32E 31 244	CAPROCK RANCH	OGLL	-60.15	3-12	+1.15	-61.30B	71	-61.30B	71	71,76
10S 32E 33 324	CAPROCK RANCH	OGLL	-54.73	3-12	+.11	-54.84B	71	-54.84B	71	71,76
10S 33E 05 423	LANE RANCH	OGLL	-71.52	4-30	+20.20	-91.72B	71	-91.72B	71	71,76
10S 33E 12 333	LANE RANCH	OGLL	-41.09A	4-30	+2.28	-43.37B	71	-43.37B	71	71,76
10S 33E 16 212A	J. J. LANE	OGLL	-34.75A	5-04	+1.69	-36.44B	71	-36.44B	71	71,76
10S 33E 18 332	J. J. LANE	OGLL	-22.90	4-28	+1.50	-21.61B	54	-21.61B	54	54,71,76
10S 33E 19 214	J. J. LANE	OGLL	-42.86A	4-28	-10.20	-32.66	71	-32.66	71	71,76
10S 33E 20 443	LANE RANCH	OGLL	-24.77	4-30	-.32	-24.45	71	-24.45	71	71,76
10S 33E 22 123A	LANE RANCH	OGLL	-34.28	4-30	+.21	-34.49	71	-34.49	71	71,76
10S 33E 22 322	CARL L. JOHNSON	TRCL	-28.05	4-30	-	-28.05	76	-28.05	76	76
10S 33E 23 411	J. J. LANE	OGLL	-31.85	5-04	-.06	-31.79B	71	-31.79B	71	71,76
10S 33E 24 123	UNKNOWN	OGLL	-22.72	5-04	+.27	-22.99	71	-22.99	71	71,76
10S 33E 33 121	J. J. LANE	OGLL	-28.20	4-30	-1.52	-26.68B	71	-26.68B	71	71,76
10S 34E 20 433	LANE RANCH	OGLL	-37.67	5-04	-.88	-36.79	71	-36.79	71	71,76
10S 34E 27 142	CARL A. JOHNSON	TRCL	-54.92	5-04	-	-54.92	76	-54.92	76	76
10S 34E 27 142	J. J. LANE	OGLL	-52.78	5-04	-1.14	-51.64B	71	-51.64B	71	71,76
10S 35E 12 312	MAC GANDY	OGLL	-119.63	5-05	-12.48	-107.15B	71	-107.15B	71	71,76
10S 35E 12 312	UNKNOWN	OGLL	-91.95	5-05	-	-87.93	54	-87.93	54	54,72,76
10S 35E 12 323	MAC GANDY	OGLL	-117.24	5-05	-15.46	-101.78B	71	-101.78B	71	71,76
10S 35E 12 444	MATTIE PRICE	OGLL	-87.15	5-06	-.99	-109.59A	54	-109.59A	54	54,71,76
10S 35E 15 322	PRICE RANCH	OGLL	-108.24	5-06	-2.06	-106.18B	71	-106.18B	71	71,76
10S 35E 16 134	MATTIE PRICE	OGLL	-122.96	5-06	-1.69	-107.81	54	-107.81	54	54,71,76
10S 35E 19 434	UNKNOWN	OGLL	-41.80	5-05	-2.99	-38.81	71	-38.81	71	71,76
10S 35E 20 341	PRICE RANCH	OGLL	-105.53	5-05	-1.02	-104.51	71	-104.51	71	71,76
10S 35E 26 343	MATTIE PRICE	OGLL	-55.50	5-11	+.24	-55.74	71	-55.74	71	71,76
10S 36E 13 224	ROY THOMPSON	OGLL	-109.30	5-11	-.13	-109.17	71	-109.17	71	71,76
10S 36E 17 344	HARDING BURRIS	TRCL	-84.04	5-06	-	-84.04	76	-84.04	76	76
10S 36E 30 242	UNKNOWN	OGLL	-87.72	5-06	-1.11	-86.61B	71	-86.61B	71	71,76

A well being pumped
B well pumped recently
C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
10S 36E 36 112	HARDING BURRIS	TRCL	-86.73	5-14	-	-86.73	76	-86.73	76	76
10S 37E 01 112A	MIKE HORTON	TRCL	-140.89	5-12	+.36	-141.25	71	-141.25	71	71,76
10S 37E 05 313	UNKNOWN	OGLL	-135.07	5-12	+.11	-135.18B	71	-135.18B	71	71,76
10S 37E 08 411	HARDING BURRIS	TRCL	-133.91	5-07	-	-133.91	76	-133.91	76	76
10S 37E 09 441	UNKNOWN	OGLL	-131.75	5-06	-.55	-131.20D	71	-131.20D	71	71,76
10S 37E 11 421	UNKNOWN	OGLL	-131.48	5-13	-.16	-131.32B	71	-131.32B	71	71,76
10S 37E 20 333	ROY THOMPSON	OGLL	-104.38	5-11	-.27	-104.11B	71	-104.11B	71	71,76
10S 37E 21 413	HARDING BURRIS	TRCL	-112.69	5-13	-	-112.69	76	-112.69	76	76
10S 37E 22 123	UNKNOWN	OGLL	-121.37	5-13	-.17	-121.20B	71	-121.20B	71	71,76
10S 37E 33 242	ROY THOMPSON	OGLL	-103.01	5-13	-	-103.01	76	-103.01	76	76
10S 38E 04 343	UNKNOWN	OGLL	-141.77	5-18	+1.08	-142.85B	71	-142.85B	71	71,76
10S 38E 05 334	UNKNOWN	OGLL	-151.06	5-19	-	-151.06	76	-151.06	76	76
10S 38E 06 332	FRANK RATLIFF	TRCL	-133.94	5-18	-	-133.94	76	-133.94	76	76
10S 38E 18 444	UNKNOWN	OGLL	-131.63	5-18	+.46	-132.09B	71	-132.09B	71	71,76
10S 38E 20 221	UNKNOWN	OGLL	-135.61	5-14	+.31	-135.92B	71	-135.92B	71	71,76
10S 38E 20 333	JOE BESEDA	TRCL	-124.88	5-19	-	-124.88	76	-124.88	76	76
10S 38E 28 111	H. H. BENNETT	OGLL	-142.50	5-18	-	-142.50	76	-142.50	76	76
10S 38E 29 133	UNKNOWN	OGLL	-126.02	5-19	-.73	-125.29B	71	-125.29B	71	71,76
10S 38E 29 242	UNKNOWN	OGLL	-133.98	5-19	+.89	-134.87B	71	-134.87B	71	71,76
11S 32E 24 411	UNKNOWN	OGLL	-67.98	1-13	-.81	-65.85	61	-68.44	74	61,65-76
11S 33E 01 212	J. O. GUYE	OGLL	-30.92	5-27	-3.32	-25.82	61	-27.34	66	61,66,71,76
11S 33E 06 231	HENRY A. CROWLEY	OGLL	-48.45	1-08	-.11	-48.45	76	-57.14	61	61,66,71,76
11S 33E 09 142	HUGH GRAHAM	OGLL	-63.63A	5-26	-.40	-153.67	57	-153.67	57	61,66,71,76
11S 33E 09 444	HUGH GRAHAM	OGLL	-45.90	5-26	+.36	-46.34	61	-48.39	66	61,66,71,76
11S 33E 12 413	DUTTERERS ENTERPRISES	OGLL	-47.97	5-27	-	-204.96	76	-204.96	76	76
11S 33E 13 344	J. D. GUY	OGLL	-30.21	5-26	-3.08	-29.00	61	-29.00	61	61,66,71,76
11S 33E 19 221	W. E. MATHERS	OGLL	-58.43	5-28	-1.30	-56.24	61	-57.48	66	61,66,71,76
11S 33E 21 114	MARION C. DALLAS	OGLL	-77.21	5-27	-11.74	-50.25	61	-51.30	66	61,66,71,76
11S 33E 22 414	H. T. DALLAS	OGLL	-35.88	5-26	-.50	-36.24	61	-36.64	66	61,66,71,76
11S 33E 24 344	ROY EPPERSON	OGLL	-35.15	5-26	-.97	-35.48B	66	-35.48B	66	66,71,76
11S 33E 25 311	R. EPPERSON	OGLL	-37.74	5-26	+.34	-36.83	61	-39.03	66	61,66,71,76
11S 33E 25 442	EPPERSON	OGLL	-33.48	1-13	-.13	-33.35	71	-34.02	66	54-76
11S 33E 28 114	UNKNOWN	OGLL	-53.24	5-26	-.42	-53.53	66	-53.53	66	66,71,76
11S 33E 33 113	W. E. MATHERS	OGLL	-56.77	5-26	-1.03	-47.41	61	-59.82	66	61,66,71,76
11S 33E 33 433	R. L. ANDERSON	OGLL	-54.95	5-26	-.53	-54.37	61	-54.90	66	61,66,71,76
11S 34E 10 413	N.M. SALT WATER CO.	OGLL	-20.46	4-27	+.19	-20.65	71	-20.65	71	71,76
11S 34E 11 444	BOGLE FARMS INC.	OGLL	-26.73	4-27	-.23	-26.10	61	-26.27	66	61,66,71,76
11S 34E 14 434	BOGLE FARMS INC.	OGLL	-26.50	4-27	+10.74	-26.93	61	-27.68	66	61,66,71,76
11S 34E 15 113	BOGLE FARMS INC.	OGLL	-8.98	4-27	+.11	-153.67	57	-153.67	57	61,66,71,76
11S 34E 16 332	BOGLE FARMS INC.	OGLL	-22.48	4-27	+1.40	-153.67	57	-153.67	57	61,66,71,76
11S 34E 23 132	BOGLE FARMS INC.	OGLL	-25.90	4-27	+13.70	-26.41	61	-28.33	66	61,66,71,76
11S 34E 23 233	BOGLE FARMS INC.	OGLL	-26.00	4-27	+6.63	-61.28	76	-61.28	76	71,76
11S 34E 25 211	BOGLE FARMS INC.	OGLL	-25.31	4-27	+2.84	-24.96	61	-26.22	66	61,66,71,76
11S 34E 26 412	BOGLE FARMS INC.	OGLL	-26.95	4-27	-1.13	-25.00	61	-25.00	61	61,71,76
11S 34E 29 141	BOGLE FARMS INC.	OGLL	-24.84	4-27	+.33	-27.27	61	-27.27	61	61,66,71,76
11S 34E 31 421	THOMAS M. EPPERSON	OGLL	-32.35	4-28	-14.19	-34.19	61	-34.19	61	61,71,76
11S 35E 25 444	ROY PEVELER	OGLL	-18.41	4-22	+4.93	-23.51	66	-23.51	66	61,66,70-71,76
11S 35E 26 311	ROY PEVELER	OGLL	-18.34	4-22	+7.64	-25.00B	61	-25.00B	61	61,66,71,76
11S 35E 35 211	ROY PEVELER	OGLL	-21.34	4-22	+7.36	-28.12B	61	-28.12B	61	61,66,71,76
11S 36E 25 344	UNKNOWN	OGLL	-59.83	4-21	-39.70	-21.65B	61	-21.65B	61	61,66,71,76
11S 36E 28 333	DICKINSON ESTATE	OGLL	-17.75	4-22	+3.09	-23.80	61	-24.27	66	61,66,71,76
11S 36E 33 331	UNKNOWN	OGLL	-14.17	4-22	+2.74	-19.44B	61	-19.44B	61	61,66,71,76
11S 36E 35 344	DICKINSON ESTATE	OGLL	-21.03	4-23	+2.82	-26.29B	66	-26.29B	66	66,71,76
11S 37E 23 142	DICK TAYLOR	OGLL	-63.63	4-21	-	-41.66	76	-41.66	76	76
11S 37E 23 323	DICK TAYLOR	OGLL	-58.46	4-20	-	-41.66	76	-41.66	76	76
11S 37E 23 411	DICK TAYLOR	OGLL	-61.35	4-20	-	-61.35	76	-61.35	76	76
11S 37E 23 431	DICK TAYLOR	OGLL	-61.89	4-20	-	-15.09	76	-15.09	76	61,73,76
11S 37E 24 313	DICK TAYLOR RANCH	OGLL	-70.84	4-20	0.00	-61.28	76	-61.28	76	71,76
11S 37E 24 441	DICK TAYLOR	OGLL	-73.63	4-20	+.42	-74.48A	66	-74.48A	66	66,71,76
11S 37E 26 422	DICK TAYLOR	OGLL	-61.44	4-20	-.09	-61.28	76	-61.28	76	71,76
11S 37E 28 434	J. T. BESS	OGLL	-42.86	4-23	+1.30	-45.57	66	-45.57	66	66,71,76
11S 37E 31 334	NEIL AND DELTA SIX	OGLL	-17.89	4-21	+2.54	-22.52	61	-23.06	66	61,66,71,76
11S 37E 32 242	WALTER DICKINSON	OGLL	-38.29	4-23	+2.72	-16.71	61	-16.71	61	61,71,76
11S 37E 32 323	J. T. BESS	OGLL	-28.87	4-23	+4.13	-39.69A	61	-39.69A	61	61,66,71,76
11S 37E 33 224	UNKNOWN	OGLL	-42.93	4-23	+1.14	-45.55A	61	-45.55A	61	61,71,73,76
11S 38E 20 444	PRENTICE HARRIS	OGLL	-85.57	4-21	-.04	-85.87	61	-85.87	61	61,66,71,76
11S 38E 30 233	UNKNOWN	OGLL	-68.56	4-21	+.93	-67.66	66	-68.59	61	61,66,71,76
11S 38E 30 332	UNKNOWN	OGLL	-65.63	4-21	+.39	-66.00	61	-66.50	66	61,66,71,76
11S 38E 32 422	PRENTISS HARRIS	OGLL	-61.01A	4-21	-1.75	-61.28	76	-61.28	76	71,76
11S 38E 34 333	UNKNOWN	OGLL	-48.40	4-21	+.63	-49.75C	66	-49.75C	66	66,71,76
11S 38E 35 433	R. K. FIELDS	OGLL	-52.06	4-21	+1.19	-52.58	61	-52.58	61	61,66,71,76
12S 31E 01 411	UNKNOWN	OGLL	-60.27	5-20	+14.32	-73.48	66	-73.48	66	61,66,71,76
12S 31E 03 224	UNKNOWN	OGLL	-86.22	5-20	-	-42.68	66	-42.68	66	76
12S 31E 15 424	L. GRAHAM	OGLL	-125.00	5-21	-	-42.68	66	-42.68	66	76
12S 31E 23 123	LYMAN GRAHAM	OGLL	-126.41	5-21	-	-42.68	66	-42.68	66	76
12S 31E 23 333	F.E. DICKSON	OGLL	-129.54	1-13	-.02	-129.20	62	-130.37	55	54-76
12S 31E 24 323	UNKNOWN	OGLL	-113.21	5-21	-	-42.68	66	-42.68	66	76
12S 31E 26 333	F.E. DODSON	OGLL	-131.61	5-20	+1.17	-131.00	66	-131.00	66	61,66,71,76
12S 31E 26 333	F.E. DICKSON	OGLL	-131.65	1-03	+.02	-130.15	62	-131.85	72	54-63,65-76
12S 32E 02 121	NORMAN R. GROSS	OGLL	-34.82	5-11	-	-55.54	61	-55.54	61	61,66,76

A well being pumped
B well pumped recently
C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
12S 32E 03 433	UNKNOWN	OGLL	-51.57	1-13	-.91	-49.33	66	-51.57	76	65-76
12S 32E 04 422	NORMAN GROSS	OGLL	-28.79	5-18	-1.02	-24.38	61	-24.38	61	61,66,71,76
12S 32E 12 242	MRS. L. M. CHAMBERS	OGLL	-80.50	5-12	+.18	-81.69	66	-88.02	61	61,66,71,76
12S 32E 13 131	W. N. GLENN	OGLL	-31.86	5-19	+1.19	-27.48	61	-27.48	61	61,66,71,76
12S 32E 15 343	BYRON FORT	OGLL	-33.23	5-18	+7.00	-46.47	61	-46.47	61	61,66,71,76
12S 32E 16 142	NORMAN R. GROSS	OGLL	-36.43	5-18	-	-38.51	61	-38.51	61	61,66,76
12S 32E 23 333	NORMAN GROSS	OGLL	-33.85	5-18	+1.59	-44.33	61	-44.33	61	61,66,71,76
12S 32E 24 113	W. N. GLENN	OGLL	-27.29	5-19	+.07	-27.90	66	-27.90	66	61,66,71,76
12S 32E 29 113	BESS CULP	OGLL	-98.54	5-21	+1.47	-113.20	61	-113.20	61	61,66,71,76
12S 32E 31 411	GRARIDGE CORP.	OGLL	-116.61	5-19	+14.88	-120.97	61	-120.97	61	61,66,71,76
12S 33E 01 321	J. T. ACREY	OGLL	-46.42A	5-14	-2.85	-49.43	61	-49.43	61	61,66,71,76
12S 33E 03 244	W. E. MATHERS	OGLL	-45.55	5-12	-.85	-45.25	61	-45.25	61	61,66,71,76
12S 33E 05 233	J.L. COX	OGLL	-67.97	5-13	-	-204.96	76	-204.96	76	76
12S 33E 06 112	PETE LOUISSENA	OGLL	-69.08	5-18	-2.83	-65.70	61	-65.85	66	61,66,71,76
12S 33E 07 223	LOUISENA AND CO.	OGLL	-75.12	5-12	+.37	-78.23	61	-78.23	61	61,66,70-71,76
12S 33E 09 244	MRS. L. M. CHAMBERS	OGLL	-60.71	5-07	-.18	-60.54	66	-60.55	61	61,66,71,76
12S 33E 11 112	MRS. L. M. CHAMBERS	OGLL	-46.38	5-12	-.40	-46.05	61	-46.08	66	61,66,71,76
12S 33E 12 131	J. T. ACREY	OGLL	-44.63	5-14	-.08	-44.85	61	-44.85	61	61,66,71,76
12S 33E 12 333	J. T. ACREY	OGLL	-45.90	5-14	+.38	-48.39	61	-48.66	66	61,66,71,76
12S 33E 14 234	J. T. ACREY	OGLL	-57.67	5-14	+.46	-61.64	61	-61.64	61	61,66,71,76
12S 33E 15 341	LOUISSENA AND CO.	OGLL	-71.66	5-12	-.08	-74.53	61	-74.53	61	61,66,71,76
12S 33E 16 344	LOUISSENA AND CO.	OGLL	-76.85	5-12	-.02	-79.03	61	-79.03	61	61,66,71,76
12S 33E 20 113	HUGH GRAHAM	OGLL	-90.30	5-12	+1.24	-94.18	61	-94.18	61	61,66,71,76
12S 33E 25 114	LOUISSENA AND CO.	OGLL	-66.75	5-14	+.31	-70.92	61	-70.92	61	61,66,71,76
12S 33E 27 244	MRS. B. C. ROACH	OGLL	-79.44	5-05	+.12	-82.03	61	-82.03	61	61,66,71,76
12S 33E 28 211	B.C. ROACH	OGLL	-81.62	1-13	+.47	-81.62	76	-82.25	67	61,65-76
12S 33E 30 232	UNKNOWN	OGLL	-81.84	5-19	-	-204.96	76	-204.96	76	76
12S 33E 34 441	BIRDIE C. ROACH	OGLL	-87.42	5-05	-.11	-87.35	61	-87.35	61	61,66,71,76
12S 33E 35 414	MRS. B. C. ROACH	OGLL	-79.20A	5-05	+.33	-79.98	61	-79.98	61	61,66,71,76
12S 33E 36 321	MRS. B. C. ROACH	OGLL	-76.60	5-05	+3.64	-78.85	61	-78.85	61	61,71,76
12S 34E 02 213	HUMBLE OIL CO.	OGLL	-27.10	4-07	+.02	-26.83	61	-27.66	66	61,66,71,76
12S 34E 05 344	B. M. MEDLIN	OGLL	-34.98	5-13	-.40	-35.37	61	-35.38	66	61,66,70-71,76
12S 34E 11 421	A.D. JONES	OGLL	-33.42	1-13	-.34	-29.78	50	-33.70	75	49-76
12S 34E 13 112	A.D. JONES EST.	OGLL	-51.24	5-06	-	-29.68	48	-41.81	55	47-53,55,57-58,61-62,76
12S 34E 13 112	A. D. JONES	OGLL	-40.65	5-06	+2.11	-33.36	61	-46.80	66	61,66,71,76
12S 34E 14 242	A. D. JONES ESTATE	OGLL	-51.24	5-06	-1.09	-36.20	61	-49.94	66	61,66,71,76
12S 34E 14 433	GREAT WESTERN	OGLL	-38.92	5-06	-.21	-34.00	61	-34.00	61	61,66,71,76
12S 34E 16 111	O. S. FRIER	OGLL	-39.74	5-13	+1.12	-41.06	61	-41.82	66	61,66,71,76
12S 34E 16 331	O. S. FRIER	OGLL	-44.63	5-13	+.51	-45.24	61	-46.12	66	61,66,71,76
12S 34E 17 121	UNKNOWN	OGLL	-42.07	5-13	+.02	-42.30	61	-43.03	66	61,66,71,76
12S 34E 17 134	B. M. MEDLIN	OGLL	-44.06	5-13	-.14	-44.44	61	-45.10	66	61,66,71,76
12S 34E 18 121	B. M. MEDLIN	OGLL	-42.99	5-13	+.70	-43.17	61	-43.17	61	61,66,71,76
12S 34E 22 443	UNKNOWN	OGLL	-39.00	5-07	+.58	-38.19	61	-38.94	66	61,66,71,76
12S 34E 23 443	PHILLIPS PET. CO.	OGLL	-37.40	5-06	+1.36	-36.12	61	-37.71	66	61,66,71,76
12S 34E 24 344	A. D. JONES ESTATE	OGLL	-35.78	5-06	+.59	-35.50B	61	-35.50B	61	61,66,71,76
12S 34E 34 223	PHILLIPS PET. CO.	OGLL	-40.67	5-06	+.63	-41.52	61	-41.74	66	61,66,71,76
12S 34E 35 122	UNKNOWN	OGLL	-39.24	5-06	+1.47	-39.57	61	-40.29	66	61,66,71,76
12S 34E 35 322	A.D. JONES	OGLL	-36.34	1-14	+4.27	-35.62	49	-59.00	62	48-76
12S 35E 01 414	W. DICKERSON JR.	OGLL	-17.27	4-06	+5.65	-24.82B	61	-24.82B	61	61,66,71,76
12S 35E 03 243	W. K. DICKENSON	OGLL	-17.46	4-06	-	-24.15A	61	-24.15A	61	61,66,76
12S 35E 04 412	A. D. JONES	OGLL	-23.41	4-13	+9.37	-31.87	66	-31.87	66	61,66,71,76
12S 35E 07 213	A. D. JONES ESTATE	OGLL	-23.74	4-08	+5.94	-24.61	66	-24.61	66	66,71,76
12S 35E 08 144	A.D. JONES ESTATE	OGLL	-37.58	4-13	-	-41.66	76	-41.66	76	76
12S 35E 11 133	W. K. DICKENSON JR.	OGLL	-26.19	4-06	+36.47	-37.46A	61	-37.46A	61	61,66,71,76
12S 35E 12 424	W. K. DICKENSON JR.	OGLL	-17.35A	4-06	-	-21.82A	61	-21.82A	61	61,66,76
12S 35E 13 341	DOYLE EVANS	OGLL	-22.00	4-13	+1.39	-25.43B	61	-25.43B	61	61,66,71,76
12S 35E 14 313	D. DICKINSON	OGLL	-10.49	4-06	+2.07	-12.56	71	-12.56	71	71,76
12S 35E 14 314	W. K. DICKENSON JR.	OGLL	-17.47	4-06	+2.16	-18.55	61	-18.55	61	61,66,71,76
12S 35E 18 233	A.D. JONES ESTATE	OGLL	-24.59	4-08	-	-41.66	76	-41.66	76	76
12S 35E 21 314	A. D. JONES	OGLL	-26.41	4-08	+1.72	-25.57	66	-28.22	61	61,66,71,76
12S 35E 24 331	DOYLE EVANS	OGLL	-21.79	4-07	+1.01	-23.48	61	-24.49	66	61,66,71,76
12S 35E 24 414	DOYLE EVANS	OGLL	-24.55	4-07	+.60	-25.54	61	-26.87	66	61,66,71,76
12S 35E 25 213	DOYLE EVANS	OGLL	-21.96	4-07	+2.22	-31.72B	61	-31.72B	61	61,66,71,76
12S 35E 27 413	STATE	OGLL	-19.76	5-19	+2.10	-22.80	61	-22.80	61	61,66,71,76
12S 35E 30 341	A. D. JONES ESTATE	OGLL	-35.23	4-08	+1.10	-37.04B	61	-37.04B	61	61,66,71,76
12S 35E 30 412	A. D. JONES ESTATE	OGLL	-32.33	4-08	-	-33.35	66	-33.35	66	66,76
12S 35E 32 214	A. D. JONES ESTATE	OGLL	-20.05	4-08	+1.87	-20.85B	61	-20.85B	61	61,71,76
12S 35E 35 132	STATE	OGLL	-21.21	4-07	+3.21	-24.08A	61	-24.08A	61	61,71,76
12S 35E 35 132A	L. S. WILLIAMS	OGLL	-20.85	4-07	-	-25.10	66	-25.10	66	66,76
12S 35E 36 444	UNKNOWN	OGLL	-36.91	4-07	+1.01	-38.63	61	-39.59	66	61,66,71,76
12S 36E 01 232A	BYRON FORT	OGLL	-19.57	4-09	-	-41.66	76	-41.66	76	76
12S 36E 03 334	B. C. DICKENSON ESTAT	OGLL	-22.69	4-09	+3.09	-26.62B	61	-26.62B	61	61,66,71,76
12S 36E 04 333	GLADYS HORTON	OGLL	-16.25	4-13	+1.48	-24.13A	61	-24.13A	61	61,66,71,76
12S 36E 07 434	W.K. DICKINSON	OGLL	-27.21	4-14	-	-41.66	76	-41.66	76	76
12S 36E 08 244	ANDERSON STATE	OGLL	-21.35	4-13	-.82	-22.12B	61	-22.12B	61	61,66,71,76
12S 36E 11 231	DICKENSON ESTATE	OGLL	-23.68C	4-09	+6.53	-28.99B	61	-28.99B	61	61,66,71,76
12S 36E 13 142	J. T. BESS	OGLL	-22.18	4-13	-	-26.00	61	-26.00	61	61,76
12S 36E 14 433	J. T. BESS	OGLL	-21.77	4-13	+5.28	-26.37	66	-26.37	66	61,66,71,76
12S 36E 15 123	J. T. BESS	OGLL	-23.21	4-09	+3.47	-27.63B	61	-27.63B	61	61,66,71,76
12S 36E 16 232	J. T. BESS	OGLL	-25.67	4-09	+1.67	-32.22B	61	-32.22B	61	61,66,71,76

A well being pumped
B well pumped recently
C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
12S 36E 16 433	J. T. BESS	OGLL	-23.94	4-09	+1.26	-27.55	61	-28.09	66	61,66,71,76
12S 36E 17 444	W. H. ANDERSON	OGLL	-24.73	4-09	+3.88	-28.50A	61	-28.50A	61	61,66,71,76
12S 36E 19 241	O. V. FISHER	OGLL	-24.09	4-08	+6.58	-27.72	70	-33.30	61	61,66,70-71,76
12S 36E 19 413	T. BETENBOUGH	OGLL	-24.04	4-14	+7.53	-30.04	61	-30.04	61	61,66,71,76
12S 36E 21 413	UNKNOWN	OGLL	-22.17	4-14	-	-41.66	76	-41.66	76	76
12S 36E 22 334	N. M. PORT OF ENTRY	OGLL	-18.17	4-14	+1.80	-21.82	66	-21.82	66	66,71,76
12S 36E 24 234	A. P. BRECKON	OGLL	-20.59	4-13	+6.89	-27.62B	61	-27.62B	61	61,66,71,76
12S 36E 26 344	M. R. ANDERSON	OGLL	-19.92B	4-14	-.85	-21.40A	61	-21.40A	61	61,66,71,76
12S 36E 28 311	J. A. BURNEY	OGLL	-21.71	5-25	+1.98	-25.25	61	-26.47	66	61,66,71,76
12S 36E 29 113	UNKNOWN	OGLL	-29.41	4-08	+2.08	-34.44	66	-34.44	66	61,66,71,76
12S 36E 29 223	TATUM PUBLIC SCHOOLS	OGLL	-23.94	4-14	+2.36	-28.63	61	-29.52	66	61,66,71,76
12S 36E 30 121	DESSIE SAWYER	OGLL	-22.16	5-19	-	-41.66	76	-41.66	76	76
12S 36E 31 221	BARNEY TOWNSEND	OGLL	-36.50	4-07	-	-37.22	61	-37.22	61	61,76
12S 36E 32 121	LEWIS NELSON	OGLL	-32.69	4-07	+.16	-30.07	61	-31.99	66	61,66,71,76
12S 36E 32 331	ROY C. AYRES	OGLL	-45.37	4-07	-	-45.74	66	-45.74	66	66,76
12S 36E 33 133	HENRIETTA BURKS	OGLL	-27.90	5-26	+1.31	-27.28	61	-28.98	66	61,66,71,76
12S 37E 01 333	UNKNOWN	OGLL	-20.78	4-07	+3.72	-26.93	61	-27.85	66	61,66,71,76
12S 37E 02 142	UNKNOWN	OGLL	-27.35	4-02	+9.58	-30.12A	61	-30.12A	61	61,66,71,76
12S 37E 04 333	UNKNOWN	OGLL	-24.60	4-07	+3.34	-30.75	66	-30.75	66	61,66,71,76
12S 37E 06 131	UNKNOWN	OGLL	-20.98	1-13	-	-20.98	76	-23.20	74	74-76
12S 37E 07 134	WALTER DICKENSON	OGLL	-21.85	4-06	+3.37	-27.21A	61	-27.21A	61	61,66,71,76
12S 37E 10 111	E. M. GREEN	OGLL	-31.32A	4-07	+2.55	-37.91	61	-37.91	61	61,66,71,76
12S 37E 11 322	DICKINSON CATTLE CO.	OGLL	-30.15	4-07	-	-41.66	76	-41.66	76	76
12S 37E 12 423	B. C. JONES	OGLL	-23.10A	4-07	+1.95	-27.38	66	-27.38	66	61,66,71,76
12S 37E 13 422	UNKNOWN	OGLL	-21.75	4-09	+4.54	-26.12	61	-27.33	66	61,66,71,76
12S 37E 15 113	C. P. PRESLEY	OGLL	-28.48	4-07	+5.83	-36.69A	61	-36.69A	61	61,66,71,76
12S 37E 15 244	C. P. PRESLEY	OGLL	-28.26	4-07	+4.75	-33.18	61	-33.18	61	61,66,71,76
12S 37E 18 131	C. D. GORE AND SMITH	OGLL	-20.15A	4-06	+3.10	-25.90A	61	-25.90A	61	61,66,71,76
12S 37E 18 333	C. D. GORE	OGLL	-19.89	4-07	+2.80	-24.50	66	-24.50	66	61,66,71,76
12S 37E 20 111	A. P. BECKONS	OGLL	-17.04A	4-08	+2.10	-20.50	66	-20.50	66	66,71,76
12S 37E 20 232	W. O. DUNLAP JR.	OGLL	-15.74	4-08	+.57	-17.89	61	-17.89	61	61,71,76
12S 37E 20 341	ALVIN BRECKON	OGLL	-20.94A	1-13	-.32	-20.47	73	-26.63	55	54-76
12S 37E 22 221	C. P. PRESLEY	OGLL	-24.89	4-08	+4.71	-29.58A	61	-29.58A	61	61,66,71,76
12S 37E 23 131	F. L. HEIDEL	OGLL	-26.09	4-08	+2.15	-29.70	66	-30.06	61	61,66,71,76
12S 37E 23 433	WINGARD	OGLL	-21.35	4-08	+3.20	-28.62A	61	-28.62A	61	61,66,71,76
12S 37E 27 213	UNKNOWN	OGLL	-29.77A	4-08	+14.68	-32.65A	61	-32.65A	61	61,66,71,76
12S 37E 27 433	BRADY LOWE	OGLL	-32.34	4-08	-	-41.66	76	-41.66	76	76
12S 37E 29 433	PERRY ADAMS	OGLL	-30.38	4-09	+7.22	-36.12A	61	-36.12A	61	61,66,71,76
12S 37E 31 324	UNKNOWN	OGLL	-27.76	4-02	+4.19	-31.74A	61	-31.74A	61	61,66,71,76
12S 37E 33 413	BRADY LOWE	OGLL	-34.45	4-02	+1.87	-38.42A	61	-38.42A	61	61,66,71,76
12S 37E 34 434	UNKNOWN	OGLL	-35.34	4-02	+1.29	-36.02A	61	-36.02A	61	61,66,71,76
12S 37E 35 143	BRADY LOWE	OGLL	-32.27	4-02	+1.27	-35.93A	61	-35.93A	61	61,66,71,76
12S 37E 35 224	ESCOLA TRAVIS	OGLL	-30.46	4-08	+1.24	-31.39	61	-32.31	66	61,66,71,76
12S 38E 04 132	G.C. COPELAND	OGLL	-38.92	1-13	+1.63	-38.92	76	-43.35	61	61-76
12S 38E 04 344	G. C. COPELAND	OGLL	-28.36	4-13	-	-30.93B	61	-30.93B	61	61,76
12S 38E 05 324	J.W. ADAMSON	OGLL	-31.87	4-09	-	-41.66	76	-41.66	76	76
12S 38E 05 411	UNKNOWN	OGLL	-31.98	4-09	+2.67	-37.12	66	-37.12	66	61,66,71,76
12S 38E 06 131	W. F. WALLACE	OGLL	-31.38	4-07	+5.07	-35.85	61	-37.83	66	61,66,71,76
12S 38E 08 141	B. C. JONES	OGLL	-27.72A	4-09	+2.37	-28.14A	61	-28.14A	61	61,66,71,76
12S 38E 11 422	ROBERT K. FIELD	OGLL	-35.99A	4-14	+.75	-37.67A	61	-37.67A	61	61,66,71,76
12S 38E 16 414	MABLE FIELD	OGLL	-6.70	4-14	+1.08	-8.06	61	-10.01	66	61,66,71,76
12S 38E 18 212	SINCLAIR OIL	OGLL	-18.60	4-09	+.39	-25.22	66	-25.22	66	61,66,71,76
12S 38E 18 234	UNKNOWN	OGLL	-16.95	4-08	+2.85	-21.25	61	-23.50	66	61,66,71,76
12S 38E 19 143	UNKNOWN	OGLL	-18.78	4-14	+1.97	-21.24	61	-22.96	66	61,66,71,76
12S 38E 20 221	MABEL FIELD	OGLL	-19.60	4-13	+3.12	-43.24A	61	-43.24A	61	61,66,71,76
12S 38E 22 441	UNKNOWN	OGLL	-21.58	4-14	+.62	-24.27	61	-24.27	61	61,66,71,76
12S 38E 23 424	MABLE FIELD	OGLL	-24.31	4-14	-.53	-28.03A	61	-28.03A	61	61,66,71,76
12S 38E 26 343	PRESSLEY HODGE	OGLL	-24.33	4-13	+4.73	-30.37A	61	-30.37A	61	61,71,76
12S 38E 27 113	W. J. MAULDIN	OGLL	-23.86	4-14	+1.80	-26.21	61	-27.52	66	61,66,71,76
12S 38E 28 344	PRESSLEY HODGE	OGLL	-22.78A	4-13	+3.08	-27.40A	61	-27.40A	61	61,66,71,76
12S 38E 30 144	MRS. MABEL FIELD	OGLL	-25.46	4-13	+7.45	-38.26A	61	-38.26A	61	61,66,71,76
12S 38E 31 422	A. P. BRECKON	OGLL	-32.43	4-13	+.52	-34.85A	61	-34.85A	61	61,66,71,76
12S 38E 33 441	UNKNOWN	OGLL	-34.66	4-14	+1.31	-37.80	66	-37.80	66	66,71,76
12S 38E 35 344	HARRIS HALL	OGLL	-36.47A	4-14	+14.38	-48.57	61	-48.57	61	61,66,71,76
13S 31E 02 244	GULF OIL CO.	OGLL	-139.50A	4-27	-	-139.07	66	-139.07	66	61,66,76
13S 31E 02 422	P. WILLIAMS	OGLL	-145.03	4-19	+.39	-146.97	61	-146.97	61	61,71,76
13S 31E 12 222	AMBASSADOR OIL CO.	OGLL	-136.28	4-19	+3.42	-147.44	61	-147.44	61	61,71,76
13S 31E 12 233	UNKNOWN	OGLL	-135.51	4-27	-	-42.68	66	-42.68	66	76
13S 31E 25 222	J.W. TULK	OGLL	-98.03	4-15	+1.72	-100.23	66	-100.23	66	61,66,71,76
13S 31E 34 210	CLYDE BROWNING	OGLL	-67.39	4-27	-	-62.51	66	-62.51	66	61,66,76
13S 32E 02 343	COOPER AND GOOD	OGLL	-131.42	4-21	-.54	-130.71	66	-130.71	66	61,66,71,76
13S 32E 05 233	T. PRICE	OGLL	-105.11	4-21	+2.79	-107.68	66	-107.68	66	61,66,71,76
13S 32E 06 433	GRARIDGE CORP.	OGLL	-127.05	4-21	+2.69	-131.17	61	-131.17	61	61,66,71,76
13S 32E 07 131	AMBASSADOR OIL CO.	OGLL	-139.93	4-21	-	-148.40	66	-148.40	66	61,66,76
13S 32E 09 331	GREAT WESTERN DRLG. C	OGLL	-133.40	4-21	+.02	-133.32	66	-133.32	66	61,66,71,76
13S 32E 16 414	GREAT WESTERN DRLG. C	OGLL	-143.26	4-20	-2.46	-140.15	66	-140.15	66	66,71,76
13S 32E 20 411	T. PRICE	OGLL	-137.90	4-20	+.31	-142.14	61	-142.14	61	61,66,71,76
13S 32E 21 332	UNKNOWN	OGLL	-155.51	4-20	+2.09	-168.94	61	-168.94	61	61,66,71,76
13S 32E 22 442A	COOPER GOOD RANCH	OGLL	-138.46	4-21	-	-204.96	76	-204.96	76	76
13S 32E 24 214	COOPER AND GOODE	OGLL	-143.98	4-21	-.02	-155.85	61	-155.85	61	61,66,71,76

A well being pumped
B well pumped recently

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
13S 32E 25 214	N.R. GROSS	OGLL	-142.78	1-13	+.12	-142.73	64	-143.34	55	54-60,62-76
13S 32E 25 214	COOPER AND GOOD	OGLL	-142.71	4-21	+.59	-142.99	61	-142.99	61	61,71,76
13S 32E 25 214A	N.R. GROSS	OGLL	-142.68	4-21	-	-142.98	59	-143.33	55	54-60,62,76
13S 32E 33 433	GREAT WESTERN DRLG. C	OGLL	-190.08C	4-21	-.55	-198.63	61	-198.63	61	61,66,71,76
13S 32E 35 141	COOPER AND GOOD	OGLL	-146.33	4-21	-.12	-158.59	61	-158.59	61	61,66,71,76
13S 33E 01 434	BESSIE FRIER	OGLL	-71.65	4-29	-.21	-71.25	65	-71.25	65	61,65,71,76
13S 33E 02 333	BILL ROACH	OGLL	-95.07	4-29	-	-204.96	76	-204.96	76	76
13S 33E 02 343	MRS. B. C. ROACH	OGLL	-84.09	4-29	-	-85.04	61	-85.04	61	61,66,76
13S 33E 03 113	MRS. B. C. ROACH	OGLL	-98.08	4-29	-.20	-99.45	61	-99.45	61	61,66,71,76
13S 33E 05 344	P. G. WHITE	OGLL	-116.13	4-20	+.61	-119.55	61	-119.55	61	61,71,76
13S 33E 09 111	JONES	OGLL	-104.03	4-20	+.16	-104.65	66	-104.65	66	61,66,71,76
13S 33E 09 113	DEAN GOFF	OGLL	-103.19	4-20	-	-204.96	76	-204.96	76	76
13S 33E 11 443	UNKNOWN	OGLL	-87.47	4-29	-.12	-87.35	71	-87.35	71	71,76
13S 33E 14 424	FRIER	OGLL	-84.09	4-29	+.08	-84.14	66	-84.14	66	66,71,76
13S 33E 20 114	L. H. CHAMBERS	OGLL	-128.45	4-20	+.30	-133.39	61	-133.39	61	61,66,71,76
13S 33E 22 343	UNKNOWN	OGLL	-73.40	4-29	-	-47.34	69	-97.97	65	65-69,76
13S 33E 22 421	GERALDINE TULK	OGLL	-87.42	4-29	+.39	-88.60	61	-88.60	61	61,71,76
13S 33E 24 431	D.L. DANIEL	OGLL	-73.44	4-29	-	-204.96	76	-204.96	76	76
13S 33E 26 412	HENRY EAVES	OGLL	-79.94	4-29	+1.06	-80.87	61	-80.87	61	61,66,71,76
13S 33E 28 444A	GERALDINE TULLE	OGLL	-96.26	4-20	-	-204.96	76	-204.96	76	76
13S 33E 29 122A	ADELINE CHAMBERS	OGLL	-117.23	4-20	+.42	-118.20	66	-118.20	66	66,71,76
13S 33E 35 341	FLOYD CHILDRESS	OGLL	-85.33	4-30	+.57	-85.90	71	-85.90	71	71,76
13S 33E 36 244	MARY ETCHEVERRY	OGLL	-70.98	4-30	+.52	-65.74	61	-65.74	61	61,66,71,76
13S 34E 01 123	HOMER INGLE	OGLL	-37.25	4-28	+1.08	-38.36	61	-38.86	66	61,66,71,76
13S 34E 02 234	A. D. FRIER	OGLL	-40.47	4-28	+1.35	-42.71	61	-42.71	61	61,66,71,76
13S 34E 04 433	A. D. FRIER	OGLL	-57.08	5-04	-.24	-57.20	61	-57.20	61	61,66,71,76
13S 34E 06 414	FRIER RANCH	OGLL	-66.62	5-04	-	-204.96	76	-204.96	76	76
13S 34E 08 313	J. M. DENTON	OGLL	-64.37	5-05	+.20	-64.22	66	-66.65	61	61,66,71,76
13S 34E 08 444	UNKNOWN	OGLL	-61.73	4-28	-1.20	-60.50	66	-60.50	66	66,71,76
13S 34E 14 113	CLARA ELKAN	OGLL	-92.46A	4-22	-36.84	-55.62	71	-55.62	71	71,76
13S 34E 14 142	J. L. REED	OGLL	-59.34C	4-22	-6.18	-53.07	66	-57.30	61	61,66,71,76
13S 34E 15 144	J. L. REED	OGLL	-56.62	4-28	-.48	-54.87	61	-54.87	61	61,66,71,76
13S 34E 17 134	J. M. DENTON	OGLL	-63.07	5-04	+1.27	-61.40	61	-63.12	66	61,66,71,76
13S 34E 18 424	J. M. DENTON	OGLL	-61.59	4-30	+.82	-60.51	61	-60.51	61	61,66,71,76
13S 34E 19 422	TROY FORT	OGLL	-62.96	4-30	+.53	-67.93	61	-67.93	61	61,66,71,76
13S 34E 21 111	LEON RICE	OGLL	-62.97	1-13	-.07	-62.12	75	-64.77	68	65-69,71-76
13S 34E 22 121	HETTIE SANDERS	OGLL	-59.56	4-28	+1.24	-60.68	61	-61.24	66	61,66,71,76
13S 34E 24 311	J. L. REED	OGLL	-72.39A	4-22	-22.60	-50.62	66	-50.89	61	61,66,71,76
13S 34E 26 311	D. M. CALLUM	OGLL	-51.26	4-22	+1.46	-51.22	61	-52.21	66	61,66,71,76
13S 34E 27 213	H. SANDERS	OGLL	-57.10	4-22	-	-204.96	76	-204.96	76	76
13S 34E 27 331	MRS. S. S. DYE	OGLL	-57.56	5-05	+.33	-56.70	61	-57.82	66	61,66,71,76
13S 34E 28 211	MAE DENNY	OGLL	-58.27	4-22	+.52	-59.20	61	-60.35	66	61,66,71,76
13S 34E 28 331	MRS. S. S. DYE	OGLL	-60.09	4-22	+.78	-59.98	61	-60.53	66	61,66,71,76
13S 34E 35 133	TIPSON FIELD	OGLL	-48.92	5-05	+5.81	-52.85	61	-52.85	61	61,66,71,76
13S 35E 01 121	TRIMBLE HOT SPRINGS	OGLL	-30.49	3-25	+1.62	-33.15	61	-33.73	66	61,66,71,76
13S 35E 02 111A	R.W. DUNCAN	OGLL	-28.82	1-14	+.96	-26.53	56	-31.50	74	53-72,74-76
13S 35E 03 313	M. DENTON	OGLL	-42.16C	3-25	-	-42.16C	76	-42.16C	76	76
13S 35E 05 344	UNKNOWN	OGLL	-34.15	4-01	+1.90	-37.40B	61	-37.40B	61	61,66,71,76
13S 35E 06 311	HOMER INGLE	OGLL	-37.17	3-25	+3.01	-40.01	66	-41.29	61	61,66,71,76
13S 35E 07 413	CLARA ELKAN	OGLL	-41.15	4-01	+1.90	-43.05	61	-43.05	61	61,66,71,76
13S 35E 09 134	J. D. GUYE	OGLL	-34.57	3-25	+2.59	-38.52	61	-41.69	66	61,66,71,76
13S 35E 12 211	F. M. TUT	OGLL	-49.84	3-25	-2.03	-45.15	61	-45.85	66	61,66,71,76
13S 35E 13 121	F. M. TUT	OGLL	-50.57	3-25	-1.06	-45.75	61	-51.45	66	61,66,71,76
13S 35E 13 131	P. M. TUT	OGLL	-51.90	3-25	-3.43	-49.54	66	-49.54	66	61,66,71,76
13S 35E 13 244	F. M. TUT	OGLL	-51.40	3-25	-1.95	-47.11	66	-47.11	66	61,66,71,76
13S 35E 15 221	MRS. R. W. DUNCAN	OGLL	-44.04	4-01	-1.88	-39.10	61	-40.48	66	61,66,71,76
13S 35E 17 233	CLARA ELKAN	OGLL	-45.26	3-26	-.81	-45.64	61	-45.64	61	61,66,71,76
13S 35E 19 211	ELKAN	OGLL	-47.69	1-14	-1.12	-44.75	46	-79.48	40	40-50,52-74,76
13S 35E 20 311	CLARA ELKAN	OGLL	-47.15	3-26	-1.66	-47.15	61	-47.20	66	61,66,71,76
13S 35E 21 114	CLARA ELKAN	OGLL	-41.05	3-30	+.79	-39.52	61	-39.52	61	61,66,71,76
13S 35E 23 222	TRIMBLE HOT SPRINGS	OGLL	-48.52	3-30	-1.17	-44.92	66	-44.92	66	61,66,71,76
13S 35E 26 311	SIDNEY WILLIAMS EST.	OGLL	-45.30	3-24	-.20	-41.93	61	-44.34	66	61,66,71,76
13S 35E 30 131	CLARA ALSTON	OGLL	-54.58A	3-25	-.96	-50.70A	61	-50.70A	61	61,66,71,76
13S 35E 31 111	ZACK JONES	OGLL	-51.67	3-25	-1.09	-50.24	61	-50.84	66	61,66,71,76
13S 35E 32 311	LENDON HILBORN	OGLL	-45.34	3-25	-.91	-47.38	66	-47.47	61	61,66,71,76
13S 35E 33 113	LENDON HILBORN	OGLL	-51.76A	3-25	+1.00	-43.56	61	-43.56	61	61,66,71,76
13S 35E 34 311	CLARA ELKAN	OGLL	-40.98	3-24	+.13	-38.89	61	-41.00	66	61,66,71,76
13S 35E 35 311	UNKNOWN	OGLL	-45.86	1-14	-	-45.86	76	-46.39	73	73-76
13S 35E 35 311	D. B. MC MILLAN	OGLL	-48.47	3-24	-5.52	-42.30	61	-43.87	66	61,66,71,76
13S 36E 03 323	UNKNOWN	OGLL	-39.15A	4-02	+.60	-40.60A	66	-40.60A	66	66,71,76
13S 36E 06 221	UNKNOWN	OGLL	-41.08	3-31	+7.76	-43.05	61	-48.84	71	61,66,71,76
13S 36E 07 344	M. R. ANDERSON	OGLL	-54.28	3-31	-1.51	-50.20	66	-50.20	66	61,66,71,76
13S 36E 08 312	W. B. BAUM	OGLL	-54.25	3-31	-1.87	-52.38	71	-52.63	66	61,66,71,76
13S 36E 09 121	W. B. BAUM	OGLL	-42.68	3-31	+.25	-41.24	61	-42.95	66	61,66,71,76
13S 36E 11 234	UNKNOWN	OGLL	-32.63	4-01	+.50	-35.20A	66	-35.20A	66	66,71,76
13S 36E 13 234	D. P. JAMES	OGLL	-43.37	4-01	+2.16	-39.11	61	-41.39	66	61,66,71,76
13S 36E 16 243	I. M. MC CLURE	OGLL	-46.01	4-01	-.91	-40.76	61	-40.76	61	61,66,71,76
13S 36E 17 221	W. B. BAUM	OGLL	-53.15	3-31	-4.02	-49.13	71	-49.13	71	61,66,71,76
13S 36E 21 133	UNKNOWN	OGLL	-63.89	1-13	-	-59.20	74	-64.20	75	74-76
13S 36E 22 411	M. R. ANDERSON	OGLL	-56.18	3-31	-1.58	-45.13B	61	-45.13B	61	61,66,71,76

A well being pumped
B well pumped recently
C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
13S 36E 23 411	M. R. ANDERSON	OGLL	-50.74	3-31	-3.03	-47.71	71	-47.71	71	61,66,71,76
13S 36E 25 222	UNKNOWN	OGLL	-52.14	3-31	-1.91	-39.20	61	-39.20	61	61,66,71,76
13S 36E 26 324	IONA MC CLISH	OGLL	-80.56B	1-13	-10.00	-42.24	49	-76.20	75	49-76
13S 36E 34 121	T. V. WALLIS	OGLL	-77.20	3-31	+1.68	-69.74	66	-78.88	71	66,71,76
13S 36E 34 211	DOROTHY WALLIS	OGLL	-77.56	3-31	-	-62.02	61	-62.02	61	61,76
13S 36E 34 311	R. E. WILLINGHAM	OGLL	-80.27	3-31	-2.99	-63.82	61	-77.28	71	61,66,71,76
13S 37E 01 331	G. K. MCDONALD	OGLL	-49.35	3-29	+1.81	-52.07	66	-56.99	61	61,66,71,76
13S 37E 04 321	BRADY LOWE	OGLL	-41.28	3-31	-.14	-42.30A	61	-42.30A	61	61,66,71,76
13S 37E 04 422	BRADY LOWE	OGLL	-36.56B	1-13	-.02	-33.83	43	-39.66	65	40-41,43-47,49-69,71-72,74-76
13S 37E 04 422										
13S 37E 06 134	H. H. HARRIS	OGLL	-30.19	4-01	+1.51	-30.98A	61	-30.98A	61	61,66,71,76
13S 37E 07 233	W.D. PATTON	OGLL	-37.40	4-01	-.25	-37.15	71	-38.92	68	65-69,71,76
13S 37E 08 111	C. O. LACKEY	OGLL	-38.25	3-31	-.86	-35.10	61	-37.39	71	61,66,71,76
13S 37E 08 331	C. O. LACKEY	OGLL	-40.33	3-31	+.87	-36.63	61	-41.20	71	61,66,71,76
13S 37E 09 111	A.P. BRECKON	OGLL	-41.23A	1-13	-.38	-36.33	48	-41.49	68	48-74,76
13S 37E 10 343	G. A. WHITMIRE	OGLL	-43.29	3-31	-.13	-40.98	61	-41.91	66	61,66,71,76
13S 37E 11 131	UNKNOWN	OGLL	-49.34	3-31	-5.20	-46.46A	66	-46.46A	66	66,71,76
13S 37E 11 133	G. A. WHITMYRE	OGLL	-41.58	3-31	-	-40.75	66	-40.75	66	66,76
13S 37E 13 211	UNKNOWN	OGLL	-42.45	3-31	-.77	-41.68	71	-41.68	71	71,76
13S 37E 16 123	A. M. BROWNFIELD	OGLL	-43.01	4-01	+.17	-43.18	71	-43.18	71	61,66,71,76
13S 37E 17 211	LEE BERRYHILL	OGLL	-43.51	4-01	+1.24	-44.75	71	-44.75	71	66,71,76
13S 37E 17 333	F. L. HEIDEL	OGLL	-43.76	4-02	-	-40.05	61	-40.05	61	61,76
13S 37E 18 111	UNKNOWN	OGLL	-46.81	4-01	-.81	-43.76	61	-45.37	66	61,66,71,76
13S 37E 22 112	BROWNFIELD BAILEY	OGLL	-50.52A	4-01	-.82	-42.94	61	-47.75	66	61,66,71,76
13S 37E 23 343	J. B. DURAN	OGLL	-50.94A	3-31	-5.26	-39.29	61	-45.68	71	61,66,71,76
13S 37E 24 111	J. L. REED	OGLL	-38.89	3-31	-.73	-32.39	61	-34.80	66	61,66,71,76
13S 37E 24 423	LOWE LAND CO.	OGLL	-69.96	3-30	-1.64	-62.49	61	-68.32	71	61,71,76
13S 37E 25 131	H. L. LOWE	OGLL	-57.67	3-31	-4.25	-51.92	66	-53.60	61	61,66,71,76
13S 37E 26 433	H. L. LOWE	OGLL	-53.75	3-31	-3.95	-42.57	61	-49.80	71	61,66,71,76
13S 37E 28 413	J.B. AND J.D. DOREN	OGLL	-61.45	1-13	-4.87	-31.70	45	-61.45	76	45-76
13S 37E 29 432	M. R. ANDERSON	OGLL	-55.96A	4-02	-3.58	-44.32A	61	-44.32A	61	61,66,71,76
13S 37E 31 113	ALEXANDER BROS.	OGLL	-74.07	4-02	-2.50	-57.02	61	-71.57	71	61,66,71,76
13S 37E 34 211	UNKNOWN	OGLL	-67.35	4-02	-15.28	-45.65	61	-52.07	71	61,66,71,76
13S 38E 02 422	H. W. HARRIS	OGLL	-80.14	3-26	-3.60	-66.25	61	-76.54	71	61,66,71,76
13S 38E 06 122	ALICE WHITMORE	OGLL	-48.37	3-29	+.11	-48.48	71	-48.52	66	61,66,71,76
13S 38E 06 341	J.W. ANDERSON	OGLL	-67.67B	1-13	-4.44	-43.02	45	-63.40	72	40-65,67-76
13S 38E 08 312	MOLLIE A. LOWE	OGLL	-72.33	3-30	-8.23	-60.21	61	-66.79	66	61,66,71,76
13S 38E 09 332	HARRIS	OGLL	-68.30	3-29	-3.30	-61.48	61	-65.00	71	61,66,71,76
13S 38E 11 424	UNKNOWN	OGLL	-84.00	3-26	-3.90	-80.10	71	-80.10	71	66,71,76
13S 38E 12 334	UNKNOWN	OGLL	-92.57	3-25	-8.27	-74.38	61	-84.30	71	61,71,76
13S 38E 14 322	TERRY BACON	OGLL	-84.68	3-25	-9.73	-73.90	66	-73.90	66	66,71,76
13S 38E 14 333	BACON	OGLL	-171.68	5-14	-	-66.47A	61	-66.47A	61	61,76
13S 38E 15 413	R.H. WILLIAMS	OGLL	-71.47	3-25	-	-41.66	76	-41.66	76	76
13S 38E 17 333	MOLLIE A. LOWE	OGLL	-56.76	3-29	-3.47	-48.30	61	-53.29	71	61,66,70-71,76
13S 38E 18 111	COY LOWE	OGLL	-44.42	3-29	-	-37.46	61	-37.46	61	61,66,76
13S 38E 19 342	COY LOWE	OGLL	-93.65	3-30	-14.31	-79.34	71	-79.34	71	66,71,76
13S 38E 21 113	J. L. REED	OGLL	-60.30	3-25	+.27	-63.12A	61	-63.12A	61	61,66,71,76
13S 38E 21 433	L. B. WILLIAMS	OGLL	-54.36	3-25	+1.08	-55.23	61	-55.96	66	61,66,71,76
13S 38E 23 333	J. C. STEGALL	OGLL	-62.42	3-25	-1.69	-58.81	61	-60.73	71	61,66,71,76
13S 38E 27 421	STATE OF NEW MEXICO	OGLL	-72.28	3-25	-	-41.66	76	-41.66	76	76
13S 38E 30 142	H. L. LOWE	OGLL	-81.58	3-30	-12.12	-63.30	61	-69.46	71	61,71,76
13S 38E 31 213	J. L. REED	OGLL	-72.17	3-30	-5.99	-59.33	61	-66.18	71	61,66,71,76
13S 38E 33 113	UNKNOWN	OGLL	-70.36	3-25	-	-218.04	71	-218.04	71	76
13S 38E 35 311	H. L. LOWE	OGLL	-68.01	3-24	+.35	-68.16	61	-69.15	66	61,66,71,76
14S 31E 24 222	UNKNOWN	OGLL	-236.54	4-19	+.11	-231.08	66	-231.08	66	61,66,71,76
14S 31E 25 414	UNION OIL CO.	OGLL	-241.79	4-12	+.11	-245.14	66	-245.14	66	61,66,71,76
14S 31E 28 443	HAL BOGLE	OGLL	-168.46	4-19	+2.78	-997.60	61	-997.60	61	61,66,71,76
14S 32E 01 333	BILLY F. GOOD	OGLL	-148.15	4-14	-	-41.66	76	-41.66	76	76
14S 32E 06 214	W. M. TULK	OGLL	-211.18	4-20	-	-27.29	76	-27.29	76	61,76
14S 32E 07 412	W. M. TULK	OGLL	-217.29	4-20	+.49	-217.95	66	-217.95	66	61,66,71,76
14S 32E 09 432	BILLY GOODE	OGLL	-188.15	4-20	+3.63	-188.33	66	-188.33	66	61,66,71,76
14S 32E 14 121	RHODA TULK HARRIS	OGLL	-140.18	4-14	-	-140.32	65	-140.38	60	60,62-66,76
14S 32E 14 223	UNKNOWN	OGLL	-156.00	4-14	-	-41.66	76	-41.66	76	76
14S 32E 18 111	W. M. TULK	OGLL	-223.42	4-19	-.47	-223.08	66	-223.08	66	61,66,71,76
14S 32E 20 233	W. M. TULK	OGLL	-208.30	4-19	-.05	-208.29	66	-208.29	66	61,66,71,76
14S 32E 21 143	BILLY GOODE	OGLL	-205.21	4-15	+10.72	-205.35	66	-216.20	70	61,66,70-71,76
14S 32E 22 422	BILLY GOODE	OGLL	-170.99	4-15	+16.27	-171.24	66	-171.24	66	61,66,70-71,76
14S 32E 27 233	UNKNOWN	OGLL	-180.65	4-07	-	-41.66	76	-41.66	76	76
14S 32E 28 344	J. E. STEVENS	OGLL	-172.99	4-07	-.05	-172.86	70	-173.45	66	61,66,70-71,76
14S 32E 32 431	UNKNOWN	OGLL	-198.63	4-07	-.14	-199.66	66	-199.66	66	61,66,71,76
14S 32E 35 334	J. E. STEVENS	OGLL	-155.67	4-07	+5.99	-161.66B	71	-161.66B	71	71,76
14S 32E 36 142	STATE OF NEW MEXICO	OGLL	-149.10	4-07	-	-41.66	76	-41.66	76	76
14S 33E 02 121	DUAL DRLG. CO.	OGLL	-83.43	4-08	+.64	-84.10	70	-84.22	66	61,66,70-71,76
14S 33E 03 413	RAY HILBURN	OGLL	-92.90	4-08	-	-41.66	76	-41.66	76	76
14S 33E 07 212	G. TULLE	OGLL	-135.93	4-14	-	-41.66	76	-41.66	76	76
14S 33E 12 223	MRS. J. ETCHEVERRY	OGLL	-73.30	4-09	+7.45	-80.75A	71	-80.75A	71	71,76
14S 33E 13 243	HILBURN TRUST	OGLL	-75.86	4-08	-	-41.66	76	-41.66	76	76
14S 33E 14 123A	RAY HILBURN	OGLL	-85.87	4-08	-	-41.66	76	-41.66	76	76
14S 33E 22 244	MRS. J. ETCHEVERRY	OGLL	-96.34	4-08	+1.05	-96.49	66	-99.50	61	61,66,71,76
14S 33E 24 424	MRS. J. ETCHEVERRY	OGLL	-78.46	4-09	+17.14	-102.96	61	-102.96	61	61,66,70-71,76

A well being pumped
B well pumped recently
C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
14S 33E 27 223	UNKNOWN	OGLL	-96.35	4-08	+.39	-96.95	66	-96.95	66	61,66,71,76
14S 33E 28 413	AMERADA OIL CO.	OGLL	-106.88	4-07	+.47	-107.51	66	-107.51	66	61,66,71,76
14S 33E 33 443	AMERADA OIL CO.	OGLL	-106.88	4-07	+.26	-106.73	66	-106.73	66	61,66,71,76
14S 33E 35 133	AMERADA PETROL. CORP.	OGLL	-100.56	1-13	+.43	-100.56	76	-101.11	61	60-76
14S 33E 36 144	JOHNNY ETCHEVERRY	OGLL	-87.75	5-04	-.25	-86.54	61	-86.54	61	61,66,71,76
14S 33E 36 144A	STATE OF NEW MEXICO	OGLL	-88.12	5-04	-	-23.20	71	-23.20	71	76
14S 34E 07 134	TROY FORT	OGLL	-71.81	4-09	+3.76	-75.99	61	-75.99	61	61,71,76
14S 34E 08 123	TROY FORT	OGLL	-65.87	4-13	+.98	-69.45	61	-69.45	61	61,66,71,76
14S 34E 09 114	TROY FORT	OGLL	-56.62	4-13	+1.12	-58.15	61	-58.15	61	61,66,71,76
14S 34E 11 123	W. A. ANDERSON	OGLL	-43.60	4-13	+.24	-44.00	61	-44.00	61	61,66,71,76
14S 34E 14 323	ROBINSON BROTHERS	OGLL	-46.78	4-13	-	-23.20	71	-23.20	71	76
14S 34E 16 234	TROY FORT	OGLL	-54.47	4-13	-	-54.74	65	-54.74	65	65,76
14S 34E 17 334	MARY ETCHEVERRY	OGLL	-66.64	4-13	+.36	-69.17	61	-69.17	61	61,66,71,76
14S 34E 18 222	MARY ETCHEVERRY	OGLL	-71.28	4-14	-.42	-71.20	61	-71.29	66	61,66,71,76
14S 34E 21 242	TROY FORT	OGLL	-57.93	4-13	+2.97	-59.67	61	-59.67	61	61,66,71,76
14S 34E 24 431	W. A. ANDERSON	OGLL	-51.13A	4-13	-	-50.15	61	-50.15	61	61,76
14S 34E 25 332	W. A. ANDERSON	OGLL	-52.29A	4-13	+.12	-52.89	61	-52.89	61	61,66,71,76
14S 34E 27 223	SINCLAIR OIL CO.	OGLL	-57.41	4-13	-	-23.20	71	-23.20	71	76
14S 34E 29 433	PELLO ETCHEVERRY	OGLL	-71.93	5-04	-	-71.738	61	-71.738	61	61,76
14S 34E 34 221	MARY ETCHEVERRY	OGLL	-58.49	4-13	+.90	-60.16	61	-60.16	61	61,66,71,76
14S 35E 03 434	CLARA ELKAN	OGLL	-45.36	3-25	+4.65	-48.55	61	-48.55	61	61,66,71,76
14S 35E 04 233	RAYMOND SPEARS	OGLL	-42.68	3-25	+.68	-42.37	61	-42.79	66	61,66,71,76
14S 35E 05 114	R. HILBURN	OGLL	-44.15	3-25	+.88	-45.85	61	-46.67	66	61,66,71,76
14S 35E 06 144	F. E. TEAGUE	OGLL	-42.53	3-25	-.99	-41.05	66	-42.35	61	61,66,71,76
14S 35E 06 211	UNKNOWN	OGLL	-43.55	1-14	-	-43.55	76	-45.20	75	75-76
14S 35E 07 343	W. A. ANDERSON	OGLL	-43.27	3-24	-	-44.34	61	-44.34	61	61,76
14S 35E 08 324	C. E. HILBURN	OGLL	-35.20	3-24	+1.23	-35.12	66	-37.34	61	61,66,71,76
14S 35E 12 111	MARVIN BROWN	OGLL	-55.80	3-31	+5.06	-50.62	61	-57.33	70	61,66,70-71,76
14S 35E 14 143	J. L. KIDD	OGLL	-54.11	3-25	+1.99	-59.70	61	-62.62	66	61,66,71,76
14S 35E 14 212	J. L. KIDD	OGLL	-57.02	3-25	+.80	-57.82	71	-62.08	66	61,66,71,76
14S 35E 15 211	B. JONES	OGLL	-46.67	3-25	+3.02	-45.20	61	-51.61	66	61,66,71,76
14S 35E 16 311	C. E. HILBURN	OGLL	-32.67	3-24	+.99	-33.12	61	-34.71	66	61,66,71,76
14S 35E 21 143	C. E. HILBURN	OGLL	-33.30	3-30	-1.20	-31.80	61	-33.92	66	61,66,71,76
14S 35E 23 313	PROPST AND ANDERSON	OGLL	-39.79	1-14	+2.44	-37.56	62	-43.50	75	54-76
14S 35E 24 132	D. H. WOODWARD	OGLL	-59.45	3-25	-2.05	-57.16	66	-58.37	61	61,66,71,76
14S 35E 25 241	M.J. WIGGINS	OGLL	-64.88	1-14	-1.71	-43.30	50	-64.88	76	49-76
14S 35E 28 434	W. A. ANDERSON	OGLL	-41.99	3-24	+.92	-42.18	66	-42.70	61	61,66,71,76
14S 35E 29 312	W. A. ANDERSON	OGLL	-43.51	3-24	+.17	-42.74	61	-43.46	66	61,66,71,76
14S 35E 30 134	W.A. ANDERSON	OGLL	-50.06	1-14	-3.71	-43.81	62	-50.06	76	39-69,71-76
14S 35E 32 322	FINN WATSON	OGLL	-42.71	3-24	+1.74	-43.18	66	-44.42	61	61,66,71,76
14S 35E 33 433	W.A. ANDERSON	OGLL	-45.76	1-14	-.69	-39.65	52	-46.60	74	43-76
14S 35E 36 231	J. L. REED	OGLL	-50.40	3-23	-.55	-49.68	61	-51.35	66	61,66,71,76
14S 36E 01 211	G.T. HANNERS	OGLL	-81.80	1-13	-5.47	-33.80	48	-81.80	76	48-52,54-76
14S 36E 01 333	E. H. PATTERSON	OGLL	-88.29	3-26	-16.62	-65.02	61	-71.67	71	61,66,71,76
14S 36E 02 113	LESLIE ESTEP	OGLL	-85.94	1-13	-5.78	-48.44	50	-85.94	76	49-76
14S 36E 02 411	DAN PUCKETT	OGLL	-84.23	3-26	-6.26	-70.33	61	-77.97	71	61,66,71,76
14S 36E 03 311	GEO. O. SHETTLE	OGLL	-82.58	3-26	-6.52	-69.62	61	-76.06	71	61,66,71,76
14S 36E 04 212	JAMES A. FOSTER	OGLL	-80.44	3-26	-3.94	-70.08	61	-76.50	71	61,66,71,76
14S 36E 05 133	S. A. RICHARDSON	OGLL	-62.46	3-25	-1.33	-55.51	61	-61.13	71	61,66,71,76
14S 36E 06 211	S. A. RICHARDSON	OGLL	-58.42	3-25	-1.20	-51.27	61	-57.22	71	61,66,71,76
14S 36E 06 421	RICHARDSON	OGLL	-60.14	1-14	-.59	-39.03	44	-60.90	69	40-44,46-55,57-76
14S 36E 08 121	FRANKIE MONTEITH	OGLL	-70.31	3-30	-2.69	-56.40	61	-67.62	71	61,66,71,76
14S 36E 09 111	KARL CLAYTON	OGLL	-76.40	1-13	-9.35	-38.36	44	-76.40	76	39-76
14S 36E 10 212	KARL CLAYTON	OGLL	-84.36	1-13	-5.75	-47.98	49	-84.36	76	49-76
14S 36E 10 313	L. D. PATMON	OGLL	-76.94	3-31	-6.96	-63.07	61	-69.98	71	61,66,71,76
14S 36E 15 211	BUDDY AND ARTHUR TAYL	OGLL	-77.37	3-31	-4.92	-59.38	61	-72.45	71	61,66,71,76
14S 36E 17 311	FRANKIE MONTEITH	OGLL	-62.72	3-26	-4.70	-52.20	61	-58.02	71	61,66,71,76
14S 36E 21 111	MAYO	OGLL	-64.81	1-13	-2.96	-42.69	49	-64.81	76	49-76
14S 36E 21 321	CURTIS PATTERSON	OGLL	-71.40	3-30	-9.54	-53.82	61	-61.86	71	61,66,71,76
14S 36E 22 411	E. C. LACKEY	OGLL	-64.54	3-31	+1.84	-54.75	61	-66.38	71	61,66,71,76
14S 36E 23 411	L. G. CAUDILL	OGLL	-68.58	3-31	-5.64	-53.24	61	-62.94	71	61,66,71,76
14S 36E 24 343	FRANK BILBERRY	OGLL	-71.17	3-31	-4.50	-60.55	61	-66.67	71	61,66,71,76
14S 36E 26 422	L. G. CAUDILL	OGLL	-78.64	4-01	-9.82	-61.94	61	-68.82	71	61,66,71,76
14S 36E 29 211	HANNERS	OGLL	-69.78	3-24	-11.49	-44.64	51	-58.29	71	50-63,71,76
14S 36E 32 121	E.T. HOWELL	OGLL	-66.37	1-14	+3.72	-53.58	49	-70.09	71	49-66,68-76
14S 36E 32 211	GEORGE ANDERSON	OGLL	-70.38	3-23	-2.61	-61.74	61	-67.77	71	61,66,71,76
14S 36E 33 131	BELL	OGLL	-79.76	1-14	-1.05	-56.92	50	-79.76	76	49-76
14S 36E 34 413	J. P. CAUDILL	OGLL	-73.48	3-31	-.80	-66.75	61	-72.68	71	61,66,71,76
14S 36E 35 111A	FREDIA WRIGHT	OGLL	-69.07	1-14	-	-69.07	76	-70.04	75	74-76
14S 37E 01 311	GEO. BRADFORD	OGLL	-80.46	3-18	-2.51	-70.20	61	-77.95	71	61,66,71,76
14S 37E 02 121	OTIS PRUETT	OGLL	-71.98	3-18	-4.11	-67.87	71	-67.87	71	71,76
14S 37E 03 114	HOBBS AND HEIDEL	OGLL	-66.07	1-13	+4.45	-44.81	52	-71.67	72	52-76
14S 37E 04 311	H. HEIDEL AND L. HOBB	OGLL	-70.06	3-18	-4.12	-52.21	61	-65.94	71	61,66,71,76
14S 37E 05 211	KNOLL	OGLL	-70.92	1-13	-1.38	-31.76	49	-71.47	74	49-76
14S 37E 05 313	E. L. HARBISON	OGLL	-83.97	3-18	-8.91	-59.91	61	-75.06	71	61,66,71,76
14S 37E 06 111	E. L. HABISON	OGLL	-87.98	3-18	-7.88	-65.72	61	-80.10	71	61,66,71,76
14S 37E 06 411	G. T. HANNERS	OGLL	-81.06	3-18	-3.77	-66.02	61	-77.29	71	61,66,71,76
14S 37E 07 311	E.L. HARBISON	OGLL	-77.50	1-13	-4.83	-42.82	49	-77.50	76	49-76
14S 37E 08 113	HARBISON	OGLL	-72.50	1-13	-2.22	-37.93	50	-73.10	74	49-76
14S 37E 09 341	C. A. FORT	OGLL	-67.13A	3-24	-5.63	-53.23	61	-53.23	61	61,66,71,76

A well being pumped
B well pumped recently

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
14S 37E 11 112	GEO. BRADFORD ET AL	OGLL	-87.39	3-18	-3.82	-67.74	61	-83.57	71	61,66,71,76
14S 37E 12 311	MRS. R. L. SPEARS	OGLL	-106.06C	3-23	-23.18	-75.28	61	-83.25	70	61,70-71,76
14S 37E 13 213	ESSIE V. POUNDS	OGLL	-83.42	3-23	-5.78	-66.20	61	-77.64	71	61,66,71,76
14S 37E 13 311	W.T. CARTER	OGLL	-88.30	1-13	-6.47	-35.57	49	-88.30	76	49-76
14S 37E 14 111	GOFF AND JOHNSON	OGLL	-87.32	1-13	-3.48	-36.12	49	-87.32	76	48-49,51-76
14S 37E 16 421	C.A. FORT	OGLL	-73.43	1-13	-4.05	-28.86	43	-73.43	76	39-76
14S 37E 18 122	EULALIA HARBISON	OGLL	-84.16	3-23	-12.62	-58.46	61	-71.54	71	61,66,71,76
14S 37E 19 111	A.B. HENNINGTON	OGLL	-67.50	1-13	-3.51	-41.15	50	-67.50	76	49-62,64-76
14S 37E 20 111	WALTER ANDERSON	OGLL	-67.53	3-19	-2.84	-56.60	61	-64.69	71	61,66,71,76
14S 37E 20 412	G.O. DURHAM	OGLL	-76.79	1-13	-2.54	-33.30	45	-76.79	76	40-68,70-76
14S 37E 21 111	C. L. NAUL	OGLL	-74.19	3-19	-2.42	-58.29	61	-71.77	71	61,66,71,76
14S 37E 22 211	R. C. AND C. A. FORT	OGLL	-82.32	3-19	-3.86	-63.01	61	-78.46	71	61,66,70-71,76
14S 37E 27 311	J.R. FORT	OGLL	-77.68	1-13	-3.53	-35.13	48	-78.55	74	48-76
14S 37E 28 211	M. L. LOWE	OGLL	-85.52	3-23	-3.75	-66.60	61	-81.77	71	61,66,70-71,76
14S 37E 29 211	HEYWOOD HEIDEL	OGLL	-78.23	3-23	-5.28	-62.39	61	-75.75	66	61,66,70-71,76
14S 37E 29 333	A. L. WALKER	OGLL	-72.81	3-24	-2.47	-59.25	61	-73.06	66	61,66,70-71,76
14S 37E 30 341	AMANDA MILLER	OGLL	-65.18	3-24	-3.27	-56.35	61	-63.14	66	61,66,71,76
14S 37E 31 333	AMANDA MILLER	OGLL	-74.40	1-14	-2.18	-44.80	50	-74.40	76	49-72,74-76
14S 37E 35 324	DICKENSON MINORS EST.	OGLL	-56.74A	3-23	-9.18	-41.51	61	-47.56	71	61,66,71,76
14S 37E 36 113	B. H. POPE	OGLL	-61.07	3-23	-5.43	-55.64	71	-55.64	71	66,71,76
14S 37E 36 413	B. H. POPE	OGLL	-56.35	3-24	-2.05	-43.03	61	-54.30	71	61,66,71,76
14S 38E 05 122	T. M. LEWIS	OGLL	-80.35	3-18	-5.78	-62.92	61	-74.57	71	61,66,71,76
14S 38E 05 334	UNKNOWN	OGLL	-58.75	3-18	-	-54.50	70	-54.50	70	66,70,76
14S 38E 06 111	MARY LOWE	OGLL	-76.82	3-18	-5.53	-59.92	61	-71.29	71	61,66,71,76
14S 38E 07 113	MEIDEL AND TAYLOR	OGLL	-78.69	1-13	-3.85	-40.73	50	-79.15	75	50-72,74-76
14S 38E 07 332	E. L. HEIDEL	OGLL	-71.54	3-17	-	-58.60	66	-58.60	66	61,66,76
14S 38E 09 222	JAMES W. SPEARS	OGLL	-77.83	3-18	-5.15	-68.07	61	-72.68	71	61,66,71,76
14S 38E 14 111	C. B. SPEARS	OGLL	-63.00	3-16	-2.31	-55.58	61	-60.69	71	61,66,71,76
14S 38E 16 123	SAM B. SAVAGE	OGLL	-61.69	3-17	-.47	-56.00	61	-61.22	71	61,66,71,76
14S 38E 17 211	C. B. SPEARS	OGLL	-59.56	3-17	-3.59	-55.97	71	-55.97	71	61,66,71,76
14S 38E 19 311	ISHAM C. SMITH	OGLL	-76.01	3-17	-7.69	-58.30	61	-73.05	70	61,66,70-71,76
14S 38E 20 112	MARY L. ALLMON	OGLL	-65.33	3-12	-5.45	-51.80	61	-59.88	71	61,66,70-71,76
14S 38E 20 313	MARY L. ALLMON	OGLL	-67.21	3-12	-6.44	-60.00	70	-61.86	61	61,66,70-71,76
14S 38E 21 212	W. D. BARNETT	OGLL	-60.08	3-16	-3.13	-53.55	61	-56.95	71	61,66,70-71,76
14S 38E 21 311	I.M. COX	OGLL	-57.56	1-14	-4.84	-32.48	49	-57.58	74	49-76
14S 38E 22 313	GLEN BOOK	OGLL	-61.25	3-16	-1.32	-56.95	61	-59.93	71	61,66,71,76
14S 38E 23 141	E. B. YARBRO	OGLL	-74.07	3-16	-6.23	-61.29	61	-67.84	71	61,66,71,76
14S 38E 26 121	TRUETT EVANS	OGLL	-79.72	3-12	-10.11	-64.60	61	-69.61	71	61,66,71,76
14S 38E 26 311	CAVE ESTATE	OGLL	-67.85	3-12	-.93	-66.92	71	-66.92	71	71,76
14S 38E 26 313	J. M. BAKER	OGLL	-70.31	3-12	-3.64	-57.08	61	-66.67	71	61,66,70-71,76
14S 38E 27 213	BURNETT FARMS	OGLL	-70.79	3-16	-8.64	-57.57	61	-62.15	71	61,66,71,76
14S 38E 27 313	GUY CAVE	OGLL	-64.92	1-13	-4.09	-38.30	51	-64.92	76	51-53,55-76
14S 38E 31 111	ALDRIDGE	OGLL	-65.91	1-14	-6.60	-37.45	50	-65.91	76	49-74,76
14S 38E 31 222	FINNIS E. COLLINS	OGLL	-65.72	3-17	-3.89	-55.56	61	-61.83	71	61,66,71,76
14S 38E 33 111	J. B. AND J. D. DORAN	OGLL	-58.38	3-16	-3.19	-49.74	61	-55.19	71	61,66,71,76
14S 38E 34 112	MRS. ROXIE BARTHOLOME	OGLL	-70.46	3-11	-8.08	-54.62	61	-62.38	71	61,66,70-71,76
14S 38E 34 311	MRS. ROXIE BARTHOLOME	OGLL	-67.25	3-11	-5.36	-61.89	71	-66.23	61	61,66,70-71,76
14S 38E 35 144	E. F. KORNEGAY	OGLL	-74.05	3-16	-15.12	-55.28	61	-59.20	70	61,66,70-71,76
15S 31E 04 411	M. M. MEDLIN EST.	OGLL	-245.20	3-29	-	-268.57	66	-268.57	66	61,66,76
15S 31E 09 241	UNION OIL CO.	OGLL	-277.46	4-12	-1.17	-277.00	61	-277.00	61	61,71,76
15S 31E 09 421	M. W. MEDLIN	OGLL	-283.80	3-29	-.32	-291.59	66	-291.59	66	61,66,71,76
15S 31E 11 422A	MEDLIN ESTATE	OGLL	-252.73	4-06	-	-41.66	76	-41.66	76	76
15S 31E 22 432	UNION OIL CO.	OGLL	-271.38	4-01	-	-271.55	66	-271.55	66	66,76
15S 31E 23 344	UNION OIL OF CALIFORN	OGLL	-240.09	4-01	-	-41.66	76	-41.66	76	76
15S 31E 24 432	UNION OIL OF CALIFORN	OGLL	-221.89	4-01	-	-41.66	76	-41.66	76	76
15S 31E 25 444	TAYLOR AND HOLMAN	OGLL	-210.85	4-01	-	-207.15	66	-207.15	66	66,76
15S 31E 26 232	UNION OIL CO.	OGLL	-252.71	4-01	-	-260.97	66	-260.97	66	60-61,66,76
15S 31E 28 324	TAYLOR AND HOLMAN	OGLL	-258.43	4-06	-.57	-267.85	66	-267.85	66	61,66,71,76
15S 31E 35 244	TAYLOR AND HOLMAN	OGLL	-261.27	4-01	+.31	-255.66	66	-255.66	66	61,66,71,76
15S 31E 36 143	HOLEMAN CATTLE CO.	OGLL	-232.00	4-01	-	-41.66	76	-41.66	76	76
15S 32E 04 342	J. E. STEVENS	OGLL	-192.52	3-29	-.12	-71.62	76	-71.62	76	66,70-71,76
15S 32E 04 342	J. E. STEVENS	OGLL	-192.34	3-29	-	-192.51	70	-192.51	70	70,76
15S 32E 05 124	J. E. STEVENS	OGLL	-206.16	3-23	+.04	-207.13	66	-207.13	66	61,66,71,76
15S 32E 06 123	J. E. STEVENS	OGLL	-221.36	3-29	-.10	-222.07	66	-222.07	66	61,66,71,76
15S 32E 06 223	TEXACO	OGLL	-188.40	1-13	+.15	-188.10	68	-189.13	67	65-76
15S 32E 07 412	MEDLIN ESTATE	OGLL	-223.72	3-29	-	-41.66	76	-41.66	76	76
15S 32E 14 121	STATE	OGLL	-168.28	4-02	+.43	-168.66	66	-168.66	66	61,66,71,76
15S 32E 16 211	MILLARD EIDSON	OGLL	-187.78	4-02	+.08	-188.26	66	-188.26	66	61,66,71,76
15S 32E 16 222	STATE	OGLL	-185.92	4-02	+.08	-186.47	66	-186.47	66	61,66,71,76
15S 32E 16 433	STATE OF NEW MEXICO	OGLL	-201.86	4-02	-	-41.66	76	-41.66	76	76
15S 32E 17 333	UNKNOWN	OGLL	-210.96	4-06	+1.77	-209.19	71	-209.19	71	71,76
15S 32E 23 231	MILLARD EIDSON	OGLL	-146.25	4-02	+.26	-71.62	76	-71.62	76	61,66,71,76
15S 32E 24 113	STATE OF NEW MEXICO	OGLL	-151.08	4-02	-	-41.66	76	-41.66	76	76
15S 32E 28 231	STATE OF NEW MEXICO	OGLL	-216.00	4-02	-	-41.66	76	-41.66	76	76
15S 32E 29 444	YUCCA WATER CO.	OGLL	-230.66	4-01	-4.61	-220.58	61	-222.57	66	61,66,71,76
15S 32E 32 213	TEXAS PACIFIC	OGLL	-234.85	4-01	-	-41.66	76	-41.66	76	76
15S 32E 33 442	CAPROCK WATER CO.	OGLL	-210.96	3-31	-	-199.81	61	-201.07	66	61,66,76
15S 32E 35 343	DOUBLE EAGLE CORP.	OGLL	-189.21	3-31	-	-41.66	76	-41.66	76	76
15S 32E 35 433	CAPROCK WATER CO.	OGLL	-188.87	3-31	-	-174.48	61	-174.48	61	61,76
15S 32E 36 333	CITY OF CARLSBAD	OGLL	-184.22	5-14	-	-41.66	76	-41.66	76	76

A well being pumped

C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
15S 32E 36 333A	EIDSON RANCH	OGLL	-16.60	3-31	-	-41.66	76	-41.66	76	76
15S 33E 02 114	JOHN ETCHEVERRY	OGLL	-96.77	3-23	+.34	-97.08	66	-97.08	66	61,66,71,76
15S 33E 03 433	AMERADA PET. CO.	OGLL	-103.59	3-23	+.35	-103.18	61	-103.18	61	61,71,76
15S 33E 07 241	CARL E. SAMS	OGLL	-121.51	3-23	+.87	-124.78A	61	-124.78A	61	61,71,76
15S 33E 09 233	CARL E. SAMS	OGLL	-108.36	3-23	+.55	-109.96	66	-109.96	66	61,66,71,76
15S 33E 09 441	CITIES SERVICE	OGLL	-110.86	3-23	+.38	-111.34	66	-111.34	66	61,66,71,76
15S 33E 10 143	CARL E. SAMS	OGLL	-107.11	3-23	+.33	-107.41	66	-107.41	66	61,66,71,76
15S 33E 10 212	UNKNOWN	OGLL	-102.85	3-23	+.32	-103.00	66	-103.00	66	66,71,76
15S 33E 13 222A	ETCHEVERRY RANCH	OGLL	-81.20	5-04	+1.15	-82.35B	71	-82.35B	71	71,76
15S 33E 14 143	J. ETCHEVERRY	OGLL	-99.94	1-13	+.54	-99.94	76	-100.74	68	65-68,70-71,75-76
15S 33E 17 232	CARL E. SAMS	OGLL	-120.77	3-23	+.43	-71.62	76	-71.62	76	61,66,71,76
15S 33E 21 124	DAISY C.L. CLAYTON	OGLL	-111.36	3-24	-	-41.66	76	-41.66	76	76
15S 33E 21 343	CARL E. SAMS	OGLL	-117.77	3-24	+.27	-118.30	66	-118.30	66	61,66,71,76
15S 33E 22 241	STANDARD OIL-STATE NM	OGLL	-104.72	3-24	-	-41.66	76	-41.66	76	76
15S 33E 25 232	J. M. ETCHEVERRY	OGLL	-83.45	3-24	+.53	-84.80B	66	-84.80B	66	66,71,76
15S 33E 27 444	D. C. LESOWRD	OGLL	-98.73	3-24	-	-103.21	61	-103.21	61	61,66,76
15S 33E 29 321	MILLARD EIDSON	OGLL	-124.06	3-31	-.94	-71.62	76	-71.62	76	61,66,71,76
15S 33E 29 331	EIDSON RANCH	OGLL	-134.27	3-31	-	-41.66	76	-41.66	76	76
15S 33E 33 421A	DAISY C. CLAYTON	OGLL	-113.24	3-24	-	-41.66	76	-41.66	76	76
15S 34E 03 412	ETCHEVERRY	OGLL	-64.12A	3-25	-3.69	-60.43	71	-60.43	71	71,76
15S 34E 05 222	J. ETCHEVERRY	OGLL	-71.68	5-04	+.17	-71.98	66	-71.98	66	61,66,71,76
15S 34E 06 311	UNKNOWN	OGLL	-84.09	5-04	-.57	-71.62	76	-71.62	76	61,66,71,76
15S 34E 07 442	PELLO ETCHEVERRY	OGLL	-78.09	5-04	-1.33	-80.60	61	-80.60	61	61,66,71,76
15S 34E 09 133	JOHN ETCHEVERRY	OGLL	-67.94	3-04	-	-41.66	76	-41.66	76	76
15S 34E 11 111	A. D. BADGETT	OGLL	-58.45	3-25	+.08	-60.85	61	-60.85	61	61,66,71,76
15S 34E 11 413	BILL GRAHAM	OGLL	-56.79	3-25	+.21	-58.25	61	-58.25	61	61,66,71,76
15S 34E 12 111	OSCAR EILAND	OGLL	-57.29	3-25	+.53	-59.13	61	-59.13	61	61,66,71,76
15S 34E 12 432	BILL GRAHAM	OGLL	-59.48	3-25	+.11	-71.62	76	-71.62	76	61,66,71,76
15S 34E 14 113	TROY FORT	OGLL	-59.25	3-25	-	-41.66	76	-41.66	76	76
15S 34E 15 243	MARTIN ARREGUY	OGLL	-62.31	3-25	+.45	-67.40	61	-67.40	61	61,66,71,76
15S 34E 17 444	J. M. ETCHEVERRY	OGLL	-70.90	5-04	-.54	-81.80	61	-81.80	61	61,66,71,76
15S 34E 18 434	J. M. ETCHEVERRY	OGLL	-77.03	5-04	+.40	-78.76	61	-78.76	61	61,66,71,76
15S 34E 24 211	MARTIN ARREGUY	OGLL	-58.77	3-26	+.39	-60.48	61	-60.48	61	61,66,71,76
15S 34E 25 311	G. T. MANNERS	OGLL	-57.54	3-30	-.36	-59.94	61	-59.94	61	61,66,71,76
15S 34E 26 144	R. E. MILBERN	OGLL	-55.60	3-30	+.15	-59.06	61	-59.06	61	61,66,71,76
15S 34E 26 324	LEON L. LYLES	OGLL	-56.22	3-30	+.41	-58.96	61	-58.96	61	61,66,71,76
15S 34E 27 442	LEON LYLES	OGLL	-60.43	3-31	+.52	-64.36	61	-64.36	61	61,66,71,76
15S 34E 28 333	JIM BLEVINS	OGLL	-68.18	3-24	+.50	-69.07	61	-69.07	61	61,66,71,76
15S 34E 32 111	R. E. MILBURN	OGLL	-72.79	3-24	+2.76	-77.25	61	-77.25	61	61,66,71,76
15S 34E 33 144	R. E. MILBURN	OGLL	-67.01	3-24	+.66	-70.61	61	-70.61	61	61,66,71,76
15S 34E 35 134	JAKE STALLINGS	OGLL	-56.62A	3-31	+.47	-58.49	61	-58.49	61	61,66,71,76
15S 34E 36 142	MRS. BERNICE HAMILTON	OGLL	-55.59	3-30	+.14	-62.58	61	-62.58	61	61,66,71,76
15S 35E 03 111A	R. K. FIELD	OGLL	-55.40B	3-19	-4.36	-51.04	71	-51.04	71	71,76
15S 35E 03 121	FINN WATSON	OGLL	-44.79	3-18	-1.72	-45.48	61	-45.48	61	61,66,71,76
15S 35E 03 442	R. K. FIELDS	OGLL	-43.19	3-18	-.89	-41.76	70	-41.76	70	66,70-71,76
15S 35E 04 314	FINN WATON	OGLL	-43.59	3-18	-	-41.47	61	-41.47	61	61,66,76
15S 35E 07 242	MARY STANSELL	OGLL	-49.17	3-17	+1.65	-52.96	61	-52.96	61	61,66,71,76
15S 35E 10 431	MARY STANSELL	OGLL	-44.90	3-17	-1.64	-40.85	61	-40.85	61	61,66,71,76
15S 35E 11 441	COALSON BROS.	OGLL	-47.74	3-17	-2.44	-41.76	66	-41.76	66	61,66,71,76
15S 35E 12 311	J. D. HAWTHORN	OGLL	-64.28	3-26	-16.24	-48.04	71	-48.04	71	71,76
15S 35E 13 232	COALSON BROS.	OGLL	-53.74	3-17	-1.66	-46.72	61	-46.72	61	61,66,71,76
15S 35E 15 144	MARY STANSELL	OGLL	-43.13	3-17	+.78	-39.28	61	-39.28	61	61,66,71,76
15S 35E 16 213	MARY STANSELL	OGLL	-41.99	3-17	+1.93	-38.87	61	-38.87	61	61,66,71,76
15S 35E 19 412	MARTIN ARREGUY	OGLL	-49.86	3-10	-.15	-48.75	61	-48.75	61	61,66,71,76
15S 35E 20 413	MARTIN ARREGUY	OGLL	-55.13	3-10	-.97	-51.95	61	-51.95	61	61,66,71,76
15S 35E 21 114	LEA CO. ELECT. COOP	OGLL	-48.28	3-10	+3.07	-43.91	61	-43.91	61	61,66,71,76
15S 35E 24 444	J. L. REED	OGLL	-58.68	3-04	-1.72	-54.35	61	-54.35	61	61,66,71,76
15S 35E 29 432	MARY J. MCCLATCHEY	OGLL	-55.22	3-10	-2.00	-56.37	61	-56.37	61	61,66,71,76
15S 35E 31 422	JOE PRICE	OGLL	-57.86	1-14	-.46	-54.14	51	-57.86	76	49-58,60-66,68-76
15S 35E 33 343	BERNICE HAMILTON	OGLL	-55.74	3-10	-2.64	-51.68B	66	-51.68B	66	66,71,76
15S 35E 35 111	ERNEST L. ANDERSON	OGLL	-57.38	3-05	-4.55	-52.83	71	-52.83	71	71,76
15S 35E 36 111	MRS. G. B. BARTHELEME	OGLL	-56.67	3-10	-1.13	-51.98	61	-51.98	61	61,66,71,76
15S 36E 01 111	E. N. MILLER	OGLL	-79.67	3-12	+6.21	-68.48	61	-89.88	71	61,71,76
15S 36E 01 311	J.W. SCOTT	OGLL	-73.17	1-14	-1.63	-43.60	49	-73.24	75	49-73,75-76
15S 36E 01 411	J. W. SCOTT	OGLL	-71.07	3-12	-2.69	-59.48	61	-68.38	71	61,71,76
15S 36E 02 314	HOBBY GANN	OGLL	-66.88	3-11	-3.32	-54.75	61	-63.56	71	61,66,71,76
15S 36E 04 322	J. P. CAUDILL	OGLL	-74.56	3-12	-2.11	-64.81	61	-72.45	71	61,66,71,76
15S 36E 05 211	J.P. CAUDILL	OGLL	-73.32	1-14	-.48	-52.73	51	-74.76	75	50-76
15S 36E 06 324	J. L. REED	OGLL	-56.06	3-16	-2.39	-49.05	61	-51.02	66	61,66,71,76
15S 36E 08 111	M. L. AND N. L. WEEMS	OGLL	-69.11	3-11	-4.47	-64.64	71	-64.64	71	71,76
15S 36E 08 312	BELEW AND ADAMI	OGLL	-69.44	3-16	-1.82	-67.62	71	-69.41	66	66,71,76
15S 36E 09 221	J. P. CAUDILL	OGLL	-75.48	3-11	-2.77	-65.90	61	-72.71	71	61,66,71,76
15S 36E 12 311	J. P. CAUDILL	OGLL	-60.26	3-12	-2.76	-50.57	61	-57.50	71	61,66,71,76
15S 36E 14 131	F.O. GRAHAM	OGLL	-63.03	1-14	-3.00	-42.38	45	-63.03	76	41-45,52-76
15S 36E 14 422	MRS. OTTO DEAN	OGLL	-58.68	3-12	-3.14	-48.00	61	-48.00	61	61,66,71,76
15S 36E 16 143	CARL C. AND M. R. JON	OGLL	-69.39	3-11	-2.25	-63.92	61	-68.04	66	61,66,71,76
15S 36E 17 111	B.F. AND WALTER ADAMS	OGLL	-70.29	1-14	-1.89	-44.47	50	-70.29	76	49-69,71-76
15S 36E 17 311	J. D. HAWTHORNE	OGLL	-74.37	3-11	-3.63	-69.70	66	-69.70	66	66,71,76
15S 36E 17 411	BELEW AND ADAMI	OGLL	-78.62	3-19	-7.48	-63.16	61	-63.16	61	61,71,76
15S 36E 18 332	J. L. REED	OGLL	-58.03	3-11	-2.23	-49.64	61	-52.72	66	61,66,71,76

A well being pumped

B well pumped recently

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 197L TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
15S 36E 20 133	E.B. PARSONS	OGLL	-77.03	1-14	-10.06	-45.25	49	-77.03	76	49-76
15S 36E 21 221	D. H. CROCKETT	OGLL	-69.76	3-05	-3.98	-63.46	61	-66.46	66	61,66,69,71,76
15S 36E 22 212	ELI JONES	OGLL	-70.21	3-11	-6.12	-56.80	61	-64.09	71	61,66,71,76
15S 36E 24 311	OTTO DEAN	OGLL	-60.09	3-11	-3.49	-48.90	61	-48.90	61	61,66,71,76
15S 36E 26 243	GULF OIL CO.	OGLL	-61.44	3-10	-4.24	-49.20	61	-57.20	71	61,71,76
15S 36E 27 111	LEAMON JONES	OGLL	-69.41	3-05	-2.55	-58.91	61	-66.86	71	61,66,71,76
15S 36E 28 113	J.R. HALE	OGLL	-76.58	1-14	+.60	-44.53	47	-77.18	71	47-63,65-76
15S 36E 29 112	G.A. FISHER	OGLL	-74.71	1-14	-4.72	-44.90	48	-74.71	76	48-76
15S 36E 30 111	J. L. REED	OGLL	-58.11	3-04	-1.74	-53.02	61	-55.41	66	61,66,71,76
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-66.27	1-14	-.07	-46.14	51	-66.27	76	49-76
15S 36E 32 323	HOBBY GANN	OGLL	-77.82	3-23	-	-53.60	49	-74.94	70	49-70,76
15S 36E 34 111	B.J. HARKRIDER	OGLL	-71.65	1-14	+4.09	-44.12	48	-75.74	71	48-58,60-66,68-71,73-76
15S 36E 36 134	HUMBLE OIL CO.	OGLL	-55.06	3-04	-4.65	-42.84	61	-50.41	71	61,66,71,76
15S 36E 36 311	UNKNOWN	OGLL	-64.10	3-04	-4.88	-55.45B	66	-55.45B	66	66,71,76
15S 37E 04 113	W. ANDERSON	OGLL	-67.57	1-13	-4.36	-37.10	50	-67.57	76	50-76
15S 37E 05 311	E. T. HOWELL	OGLL	-67.75	3-19	-3.35	-56.69	61	-64.40	71	61,66,71,76
15S 37E 06 211	VELMA MCADAMS	OGLL	-70.35	3-19	-1.47	-63.82	66	-68.88	71	61,66,71,76
15S 37E 07 111	D.H. CROCKETT	OGLL	-70.72	1-13	-2.46	-46.13	50	-72.05	75	50-73,75-76
15S 37E 08 213	C. W. AND C. C. DUFFE	OGLL	-64.74	3-19	-2.58	-52.40	61	-62.16	71	61,66,71,76
15S 37E 09 431	K. L. HUEZ	OGLL	-68.26	3-24	-6.31	-46.02	61	-61.95	71	61,66,71,76
15S 37E 11 333	J. M. DENTON	OGLL	-46.33	3-23	-3.23	-37.51A	61	-37.51A	61	61,66,71,76
15S 37E 12 313	DICKINSON MINOR ESTAT	OGLL	-39.77	3-23	-2.09	-33.09B	61	-33.09B	61	61,66,71,76
15S 37E 14 232	J. M. DENTON	OGLL	-40.82	3-23	-2.09	-35.99	66	-38.73	71	61,66,71,76
15S 37E 15 143	J. M. DENTON	OGLL	-63.21A	3-23	-11.88	-154.14	58	-154.14	58	61,66,70-71,76
15S 37E 15 244	J. S. WALKER	OGLL	-49.16	3-23	-3.89	-45.27	71	-45.27	71	61,66,71,76
15S 37E 19 311	OTTO DEAN	OGLL	-64.17	1-14	-.98	-41.09	50	-64.58	74	48-50,52,54-64,66-76
15S 37E 20 221	J.E. STEELE	OGLL	-69.49	1-14	-3.30	-35.30	50	-69.49	76	49-76
15S 37E 23 112	NELLIE FORT	OGLL	-53.31	1-14	-4.64	-35.59	51	-53.31	76	51-76
15S 37E 25 142	DICKINSON MINORS EST.	OGLL	-37.00	3-24	-1.00	-36.00	71	-36.00	71	61,66,71,76
15S 37E 27 111	C.E. RENSHAW	OGLL	-69.06	1-14	-8.34	-29.38	43	-69.06	76	42-44,46-76
15S 37E 28 411	L. M. WILLIAMS	OGLL	-70.97	3-24	-4.19	-56.28	61	-66.78	71	61,66,71,76
15S 37E 29 111	T. WILKS	OGLL	-70.22	1-14	-2.79	-39.08	51	-70.22	76	51-76
15S 37E 30 331	OTTO DEAN	OGLL	-68.04B	3-24	-4.44	-59.14	61	-63.60	71	61,66,71,76
15S 37E 31 132	W.R. DEAN	OGLL	-66.22	1-14	-3.89	-35.04	50	-66.22	76	49-76
15S 37E 33 211	E. B. YARBRO	OGLL	-68.17	3-24	-2.31	-56.79	61	-65.86	71	61,66,71,76
15S 37E 33 311	YARBRO	OGLL	-72.43	1-14	-1.99	-35.97	50	-72.70	70	50-64,66-76
15S 37E 34 213	G. D. TAYLOR	OGLL	-61.06	3-24	-3.24	-47.74	61	-57.82	71	61,66,71,76
15S 37E 35 212	DICKINSON MINORS EST.	OGLL	-49.05A	3-24	-7.07	-41.98	71	-41.98	71	66,71,76
15S 38E 02 233	E. L. GLASS	OGLL	-70.90	3-18	-6.03	-51.37	61	-64.87	71	61,66,71,76
15S 38E 03 214	MRS. R. L. BARTHOLOME	OGLL	-66.90	3-18	+3.64	-53.57	61	-70.54	71	61,66,71,76
15S 38E 03 222	MRS. R.L. BARTHOLOMEW	OGLL	-74.37	3-18	-3.69	-70.68	71	-70.68	71	71,76
15S 38E 07 242	DICKINSON MINORS EST.	OGLL	-40.60	3-23	-1.99	-34.97B	61	-34.97B	61	61,66,71,76
15S 38E 10 321	LOWE	OGLL	-44.33	1-14	-1.15	-31.84	51	-44.33	76	51-76
15S 38E 11 134	A. V. SHURLOCK	OGLL	-65.14	3-18	-1.60	-52.66	61	-63.54	71	61,66,71,76
15S 38E 14 144	M. L. LOWE	OGLL	-68.94	3-18	-5.81	-52.87	61	-64.48	66	61,66,71,76
15S 38E 15 133	M. L. LOWE	OGLL	-35.58	3-18	+.26	-28.80	61	-35.84	71	61,66,71,76
15S 38E 16 321	TROY FORT	OGLL	-44.59	3-18	-.93	-43.66	71	-49.80	66	66,71,76
15S 38E 18 432	DICKENSON MINORS EST.	OGLL	-39.20A	3-23	-1.76	-34.11A	61	-34.11A	61	61,66,71,76
15S 38E 20 233	DICKENSON MINORS EST.	OGLL	-37.75	3-18	-.65	-32.94B	61	-32.94B	61	61,66,71,76
15S 38E 22 432	T.R. FORT	OGLL	-44.01	1-14	-2.62	-28.72	42	-44.58	70	40-53,55-76
15S 38E 23 344	J. W. WAITS	OGLL	-60.70	3-18	-6.55	-54.15	71	-54.15	71	66,71,76
15S 38E 26 311	JOHN W. WAITS	OGLL	-53.44	3-18	-4.70	-40.29	61	-48.74	71	61,66,71,76
15S 38E 27 132	TROY FORT	OGLL	-44.71	3-18	-2.21	-37.08A	61	-37.08A	61	61,66,71,76
15S 38E 28 311	TROY FORT	OGLL	-32.12	3-18	-.99	-30.10	66	-31.13	71	61,66,71,76
15S 38E 32 111	DICKENSON MINORS EST.	OGLL	-14.10	3-24	-.08	-10.43B	61	-10.43B	61	61,66,71,76
15S 38E 34 314	JOHN WAITS	OGLL	-43.99	3-18	-	-37.65	66	-37.65	66	61,66,76
15S 38E 35 131	WAITS	OGLL	-57.08	1-14	-3.36	-37.61	50	-57.08	76	50-58,60-73,75-76
16S 31E 14 244	BOGLE FARMS INC.	OGLL	-297.71	5-06	-.31	-298.22	66	-298.22	66	61,66,71,76
16S 31E 22 444	TAYLOR	OGLL	-154.57	5-05	-1.17	-23.09	66	-23.09	66	61,66,71,76
16S 32E 01 141	PLYMOUTH OIL CO.	OGLL	-201.22	5-06	-.66	-200.03	66	-200.03	66	61,66,71,76
16S 32E 02 413	SUN RAY MIDCONTINENT	OGLL	-209.90	5-06	-	-207.00	61	-207.00	61	61,76
16S 32E 08 142	BOGLE FARMS	OGLL	-259.64	5-06	+.25	-270.10	66	-270.10	66	61,66,71,76
16S 32E 11 241	FANNIE LEE MITCHELL	OGLL	-215.95	5-07	+.11	-224.17	66	-224.17	66	61,66,71,76
16S 32E 11 341	W. A. ANDERSON	OGLL	-228.48	5-07	-.76	-244.67	66	-244.67	66	61,66,71,76
16S 32E 13 133	GULF REFINING CO.	OGLL	-196.90	5-14	-	-199.57	66	-199.57	66	61,66,76
16S 32E 15 233	W. A. ANDERSON	OGLL	-226.13	5-07	+.55	-226.78	66	-226.78	66	61,66,71,76
16S 32E 20 311	TAYLOR AND HOLEMAN	OGLL	-255.24	5-05	+1.45	-256.06	67	-257.46	60	60-73,76
16S 32E 20 333	TAYLOR AND HOLEMAN	OGLL	-236.50	5-05	+1.35	-258.83	66	-258.83	66	61,66,71,76
16S 32E 23 123	SHELL OIL	OGLL	-211.93	5-07	-.08	-69.07	76	-69.07	76	71,76
16S 32E 24 412	W. W. WILLIAMS	OGLL	-189.78	5-14	+.26	-184.16	61	-184.16	61	61,66,71,76
16S 32E 30 341	TAYLOR AND HOLEMAN	OGLL	-47.08	5-05	-.89	-47.97	66	-47.97	66	61,66,71,76
16S 32E 33 332	TAYLOR AND HOLEMAN	OGLL	-122.35	5-05	+.20	-128.07	66	-128.07	66	61,66,71,76
16S 32E 35 132	CONOCO	OGLL	-219.75	5-07	-1.85	-213.61	66	-213.61	66	66,71,76
16S 32E 36 322	DOUBLE EAGLE CO.	OGLL	-217.51	5-05	-	-209.75	66	-209.75	66	61,66,76
16S 32E 36 333	CAPROCK WATER CO.	OGLL	-211.58	5-26	-	-211.58	76	-211.58	76	76
16S 33E 02 112	EIDSON RANCH	OGLL	-129.00	5-13	+7.70	-69.07	76	-69.07	76	71,76
16S 33E 05 232	MILLARD EIDSON	OGLL	-157.47	5-13	-2.98	-157.48A	61	-157.48A	61	61,66,71,76
16S 33E 08 311	MILLARD EIDSON	OGLL	-162.50	5-13	-.08	-181.30A	61	-181.30A	61	61,66,71,76
16S 33E 12 133	SKELLY OIL CO.	OGLL	-122.64	5-13	-.73	-121.20	72	-122.05	61	61,65-72,76
16S 33E 14 333	CHARLIE MARTIN	OGLL	-135.78	5-13	-.11	-135.18B	66	-135.18B	66	66,71,76

A well being pumped
B well pumped recently

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
16S 33E 22 334	JENNIE L. MARTIN	OGLL	-143.70	5-13	-1.38	-138.68	61	-138.68	61	61,71,76
16S 33E 25 123	TENN. GAS TRANSMISSIO	OGLL	-132.20	5-20	-3.13	-126.50	66	-127.11	61	61,66,71,76
16S 33E 25 222	JENNIE L. MARTIN	OGLL	-120.13	5-20	-2.88	-116.09	61	-116.09	61	61,66,71,76
16S 33E 30 112	SAMEDAN OIL CO.	OGLL	-182.55	5-14	-1.55	-177.48	66	-177.48	66	61,66,71,76
16S 33E 34 111	YUCCA WATER CO.	OGLL	-169.43	5-14	-3.98	-164.31	66	-164.31	66	66,71,76
16S 33E 34 423	WILLIAMS RANCH	OGLL	-168.46	5-20	-5.81	-69.07	76	-69.07	76	71,76
16S 33E 35 123	SHELL OIL CO.	OGLL	-156.26	5-20	-4.98	-151.28	71	-151.28	71	71,76
16S 34E 01 221	HUMBLE OIL CO.	OGLL	-65.35	5-17	+.34	-65.67	66	-65.67	66	66,71,76
16S 34E 01 224	AUSTIN BLACKMON	OGLL	-65.59	5-17	+.40	-65.86	66	-65.86	66	61,66,71,76
16S 34E 01 332	JERRY CLAYTON	OGLL	-66.11	5-18	-	-66.83B	61	-66.83B	61	61,66,76
16S 34E 02 322	CARL E. SAMS	OGLL	-70.73A	5-18	+1.71	-71.42	61	-71.42	61	61,66,71,76
16S 34E 04 232	DAISY CHAMBERS	OGLL	-92.38A	5-18	-4.81	-93.04	61	-93.04	61	61,66,71,76
16S 34E 04 434	DAISY CHAMBERS	OGLL	-88.50	5-18	-.22	-88.27	61	-88.27	61	61,66,71,76
16S 34E 06 244	DAISY CHAMBERS	OGLL	-105.00	5-18	-.12	-104.93	61	-104.93	61	61,66,71,76
16S 34E 07 243	JENNIE L. MARTIN	OGLL	-118.19	5-13	-2.17	-154.14	58	-154.14	58	61,66,70-71,76
16S 34E 07 422	PURE OIL CO.	OGLL	-128.88	5-18	-2.19	-108.93	66	-109.07	61	61,66,71,76
16S 34E 08 413	C. W. TRAINER	OGLL	-105.37	5-18	-5.04	-104.73	66	-104.73	66	66,71,76
16S 34E 08 433	C. W. TRAINER	OGLL	-106.84	5-18	-.76	-100.20	61	-103.00	66	61,66,71,76
16S 34E 10 214	J. B. CLAYTON	OGLL	-81.63	5-18	+.09	-82.25	61	-82.25	61	61,66,71,76
16S 34E 11 312	J. B. CLAYTON	OGLL	-79.80	5-19	+.66	-80.55	61	-80.55	61	61,66,71,76
16S 34E 12 221	AUSTIN BLACKMON	OGLL	-64.51	5-19	-	-64.85B	61	-64.85B	61	61,66,76
16S 34E 12 322	FRED J. YORK	OGLL	-67.60	5-19	+.19	-68.01	66	-68.01	66	66,71,76
16S 34E 12 343	MAGGIE YORK	OGLL	-70.96	5-19	+.34	-71.66B	61	-71.66B	61	61,66,71,76
16S 34E 13 222	JAMES F. THRASHER	OGLL	-63.47	5-21	-	-63.74A	61	-63.74A	61	61,66,76
16S 34E 14 213	CLAYTON RANCH	OGLL	-76.49	5-19	+.33	-76.69	66	-76.69	66	66,71,76
16S 34E 16 443	J. B. CLAYTON	OGLL	-88.99	5-19	-2.39	-93.80	61	-93.80	61	61,66,71,76
16S 34E 18 133	CITY OF CARLSBAD	OGLL	-135.36	3-31	-	-135.36	76	-135.36	76	76
16S 34E 18 421	CITY OF CARLSBAD	OGLL	-115.97	3-31	-	-115.97	76	-115.97	76	76
16S 34E 20 233	MARATHON OIL CO.	OGLL	-108.48	1-13	-2.49	-104.80	68	-108.54	70	61,65-76
16S 34E 21 431	J. B. CLAYTON	OGLL	-94.38	5-19	-.08	-94.69	61	-94.69	61	61,66,71,76
16S 34E 22 133	HUMBLE OIL CO.	OGLL	-89.39	5-19	-.29	-89.65	66	-90.40	61	61,66,71,76
16S 34E 23 144	J. B. CLAYTON	OGLL	-77.38	5-19	+.30	-65.30	76	-65.30	76	61,66,71,76
16S 34E 30 233	M. C. R. A.	OGLL	-125.68	5-20	+1.03	-115.15	61	-115.15	61	61,71,76
16S 34E 34 114	MILLARD EIDSON	OGLL	-94.22	5-19	-2.42	-94.48	61	-94.48	61	61,66,71,76
16S 34E 35 234	EIDSON RANCH	OGLL	-80.09C	5-20	-	-80.09C	76	-80.09C	76	76
16S 35E 03 114	R. E. MILBURN	OGLL	-58.53A	2-25	-1.29	-60.67A	66	-60.67A	66	66,71,76
16S 35E 04 144	BERNICE HAMILTON	OGLL	-55.99	2-25	-.06	-55.93	71	-55.99	76	66,71,76
16S 35E 04 443	WILSHIRE OIL CO	OGLL	-57.28	2-25	+.05	-55.97	61	-57.33	71	61,66,71,76
16S 35E 05 112	BUDDY MEDLIN	OGLL	-55.64	2-25	+.84	-54.80	71	-55.64	76	71,76
16S 35E 06 242	R.J. ANTHONY	OGLL	-59.09	4-01	+.02	-59.11	71	-59.11	71	71,76
16S 35E 06 322	R. J. ANTHONY	OGLL	-61.68	2-25	-2.57	-59.11	71	-61.68	76	61,66,71,76
16S 35E 07 222	E. L. HARROD	OGLL	-59.47	2-25	+.95	-59.47	76	-60.42	71	61,66,71,76
16S 35E 08 223	SHELL OIL CO.	OGLL	-54.53	2-25	-.34	-52.69	61	-54.53	76	61,66,71,76
16S 35E 09 111	E. L. HARROD	OGLL	-52.13	2-26	+.44	-51.63	61	-52.59	66	61,66,71,76
16S 35E 09 132	E. L. HARROD	OGLL	-51.53	2-26	-.31	-50.17	61	-51.53	76	61,66,71,76
16S 35E 09 213	HUMBLE OIL AND REF. C	OGLL	-53.26	2-25	+.07	-51.97	61	-53.33	71	61,66,71,76
16S 35E 09 342	E. L. HARROD	OGLL	-49.63	2-26	+.08	-49.37	66	-50.00	61	61,66,71,76
16S 35E 09 413	GULF OIL CORP.	OGLL	-50.42	2-26	+.04	-49.22	61	-50.46	71	61,66,71,76
16S 35E 10 333	TEX. PACIFIC COAL CO.	OGLL	-50.50	2-26	-.14	-50.36	71	-50.50	76	71,76
16S 35E 11 121	C. E. MILBURN	OGLL	-52.42	2-26	+.34	-52.42	76	-52.76	71	61,66,71,76
16S 35E 11 221	C. E. MILBURN	OGLL	-54.02	2-26	+.24	-52.61	61	-54.26	71	61,66,71,76
16S 35E 11 411	C. E. MILBURN	OGLL	-51.33	2-26	+.18	-50.70	61	-52.34	66	61,66,71,76
16S 35E 12 422	J. C. MANSKER	OGLL	-57.33	2-26	-1.52	-53.04	61	-57.33	76	61,66,71,76
16S 35E 13 112	C.E. MILBURN	OGLL	-52.31	1-14	+.99	-43.38	49	-54.58	73	48-76
16S 35E 13 131	C. E. MILBURN	OGLL	-52.30	2-26	+.77	-52.30	76	-54.36	66	61,66,71,76
16S 35E 13 411	GEORGE SUMERALD	OGLL	-53.64	3-02	+.31	-53.95	71	-53.95	71	61,66,71,76
16S 35E 14 131	C. E. MILBURN	OGLL	-54.05	2-27	+.90	-53.74	61	-55.31	66	61,66,71,76
16S 35E 14 313	C. E. MILBURN	OGLL	-51.96	2-27	+.79	-51.30	61	-53.10	66	61,66,71,76
16S 35E 17 222	GUY MABEE DRLG. CO.	OGLL	-55.07	3-02	-.27	-53.87	61	-54.80	71	61,66,71,76
16S 35E 20 413	MILLARD EIDSON	OGLL	-55.52	3-10	-2.35	-53.17	71	-53.17	71	61,66,71,76
16S 35E 22 432	MILLARD EIDSON	OGLL	-45.66	3-03	-.26	-43.35	61	-43.35	61	61,66,71,76
16S 35E 23 211	E. LEAVELLE	OGLL	-51.65	2-27	+.07	-50.28	61	-51.72	71	61,66,71,76
16S 35E 23 411	W. W. MAY	OGLL	-45.02	2-27	+.47	-43.87	61	-46.84	66	61,66,71,76
16S 35E 24 111	T.G. HESTER	OGLL	-50.84	1-14	+.09	-44.09	51	-55.63	66	51-76
16S 35E 24 411	C. L. PAYNE	OGLL	-48.08	3-03	-.29	-47.79	71	-47.79	71	71,76
16S 35E 25 121	GEO. SUMRULD	OGLL	-41.67	3-02	-.39	-41.28	71	-41.28	71	61,66,71,76
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-42.78	1-14	-.33	-35.37	49	-43.87	74	49-76
16S 35E 27 123	MILLARD EIDSON	OGLL	-57.91	3-03	-.41	-55.78	61	-55.78	61	61,66,71,76
16S 35E 35 112	MILLARD EIDSON	OGLL	-47.37	3-03	-.30	-45.98B	66	-45.98B	66	66,71,76
16S 35E 35 123	WESTERN NAT. GAS CO.	OGLL	-43.07	3-03	-.17	-38.96	61	-42.90	71	61,66,71,76
16S 36E 01 311	BOBBY BURNETT	OGLL	-67.67	3-04	+.25	-57.32	61	-67.92	71	61,66,71,76
16S 36E 01 424	J. T. EASLEY	OGLL	-64.70	3-09	-3.64	-47.64	61	-61.06	71	61,71,76
16S 36E 02 111	BARNEY MCMAHAN	OGLL	-73.90	3-04	-.81	-65.89	61	-73.09	71	61,66,71,76
16S 36E 02 413	J. R. BROMFIELD	OGLL	-72.35	3-04	-1.11	-62.41	61	-71.24	71	61,66,71,76
16S 36E 03 142	T. H. FRENCH	OGLL	-72.12	3-10	+.98	-69.52	61	-73.10	71	61,66,71,76
16S 36E 04 121	C. D. GORE	OGLL	-65.26	3-09	-.18	-65.08	71	-65.08	71	66,71,76
16S 36E 04 322	LOVINGTON REC.	OGLL	-65.30	1-14	-	-65.30	76	-65.78	73	72-76
16S 36E 05 111	L. L. BEADLE	OGLL	-57.02	3-09	+1.03	-53.07	61	-58.05	71	61,66,71,76
16S 36E 05 124	I.D. PHILLIPS	OGLL	-63.21	1-14	+1.23	-50.09	48	-64.44	71	48-71,73-76
16S 36E 07 113	J. C. MANSKER	OGLL	-56.48	2-26	-2.30	-51.80	61	-56.48	76	61,66,71,76

A well being pumped
B well pumped recently
C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX. IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
16S 36E 08 111	C. C. CHAMBERS	OGLL	-70.68	3-10	-	-66.60	61	-66.60	61	61,66,76
16S 36E 08 211	H.W. GILETTE	OGLL	-68.94	1-14	+.76	-53.67	48	-70.45	67	48-76
16S 36E 08 311	HAROLD RUNNELS	OGLL	-78.58	3-09	-6.81	-62.72	61	-71.77	71	61,66,71,76
16S 36E 08 433	LAWSON MONTEITH	OGLL	-74.57	3-03	+.69	-75.26	71	-75.26	71	71,76
16S 36E 11 241	LOVINGTON COUNTRY CLB	OGLL	-79.26B	1-14	+5.59	-53.97	48	-84.85	71	48-53,56,58-61,63-64,67-69, 71-73,75-76
16S 36E 13 322	RHYNE SIMPSON	OGLL	-58.35	3-10	-4.83	-53.52	71	-53.52	71	61,66,71,76
16S 36E 14 221	RHYNE SIMPSON	OGLL	-58.73	3-09	+1.10	-59.83	71	-59.83	71	61,66,71,76
16S 36E 14 311	W. N. STROOPE	OGLL	-61.12	3-10	+4.67	-65.79	71	-65.79	71	61,66,71,76
16S 36E 15 113	AUSTIN BLACKMON	OGLL	-69.61	2-25	-.68	-68.93	71	-73.98	61	61,66,71,76
16S 36E 15 211	JOHN RUSHING	OGLL	-62.05	3-04	+3.38	-65.43	71	-65.43	71	61,66,71,76
16S 36E 15 321	E. M. SMITH	OGLL	-65.93	3-04	-.60	-65.33	71	-65.37	61	61,66,71,76
16S 36E 16 231	T. M. BLACKMON	OGLL	-68.72	3-10	-.14	-66.20	61	-68.58	71	61,66,71,76
16S 36E 17 111	BERRY L. HOBBS	OGLL	-75.07	3-09	-1.45	-64.48	61	-73.62	71	61,66,71,76
16S 36E 18 111	C. C. CHAMBERS	OGLL	-58.25	2-26	+2.48	-55.67	61	-60.73	71	61,66,71,76
16S 36E 19 211	PAYNE ENTERPRISES	OGLL	-64.90	3-03	-2.07	-59.25	61	-63.30	66	61,66,71,76
16S 36E 21 232	T. M. BLACKMON	OGLL	-64.03	4-01	-	-59.98B	61	-59.98B	61	61,66,76
16S 36E 23 241	T.M. MONTEITH	OGLL	-57.27	1-14	+3.21	-46.68	55	-62.59	72	54-58,60-63,65-76
16S 36E 24 141	H. T. MONTEITH	OGLL	-55.34	3-04	+.03	-48.21	61	-55.37	71	61,66,71,76
16S 36E 25 322	CITY OF LOVINGTON	OGLL	-60.06	3-10	-5.86	-54.20	71	-54.20	71	61,66,71,76
16S 36E 26 212	H. T. MONTEITH	OGLL	-58.61	3-10	-3.55	-55.06	71	-55.06	71	61,66,71,76
16S 36E 30 122	J. V. PAYNE	OGLL	-75.23	3-10	-.78	-72.62	66	-72.62	66	66,71,76
16S 36E 31 131	MILLARD EIDSON	OGLL	-60.82	3-10	-.54	-58.40B	61	-58.40B	61	61,66,71,76
16S 36E 32 222	MILLARD EIDSON	OGLL	-65.13	3-03	+.54	-63.81	61	-65.67	71	61,66,71,76
16S 36E 33 113	J. D. GRAHAM	OGLL	-61.30	3-03	+.54	-59.17	61	-61.84	71	61,66,71,76
16S 36E 33 342	MASON GRAHAM	OGLL	-56.19	3-03	+1.55	-53.14	61	-57.74	71	61,66,71,76
16S 36E 34 241	MASON GRAHAM	OGLL	-57.86	2-25	-2.74	-57.86	76	-57.86	76	61,66,71,76
16S 36E 35 243	JACK CAYTON	OGLL	-58.61	2-26	-5.33	-53.28	71	-58.61	76	61,66,71,76
16S 37E 01 111	RAYBURN HOUCHIN	OGLL	-73.90	3-11	-5.54	-68.36	71	-68.36	71	61,66,71,76
16S 37E 01 311	WILKS	OGLL	-75.45	1-14	-.50	-34.99	50	-77.55	74	50-76
16S 37E 01 411	H. W. WILKS	OGLL	-68.01	3-11	-3.36	-52.77	61	-64.65	71	61,66,71,76
16S 37E 02 211	HARADA	OGLL	-74.29	1-14	-.48	-38.33	50	-74.29	76	50-76
16S 37E 02 311	UGI HARADA	OGLL	-72.37	3-11	-1.29	-61.83	61	-71.08	71	61,66,71,76
16S 37E 03 123	MRS. H. HEIDEL	OGLL	-67.81	3-12	-4.01	-54.41	61	-63.80	71	61,66,71,76
16S 37E 03 133	MRS. J. EASLEY	OGLL	-60.79	3-16	-2.75	-61.08A	66	-61.08A	66	66,71,76
16S 37E 06 412	JOHN EASLEY	OGLL	-57.70	3-16	-3.94	-50.75	66	-53.76	71	66,71,76
16S 37E 07 114	BEAL GLEASON	OGLL	-58.51	1-14	-2.28	-38.32	50	-59.29	75	50-76
16S 37E 07 333	J. P. CAUDILL	OGLL	-63.20	3-16	-1.50	-54.85	61	-61.70	71	61,66,71,76
16S 37E 07 421	J. P. CAUDILL	OGLL	-51.65	3-16	-3.00	-39.24	61	-48.65	71	61,66,71,76
16S 37E 08 334	E. S. JOHNSON	OGLL	-53.14A	3-16	-7.01	-37.19	61	-37.19	61	61,66,71,76
16S 37E 09 434	CYNTHIA MEDLIN	OGLL	-46.43	3-16	-1.71	-37.87B	61	-37.87B	61	61,66,71,76
16S 37E 10 211	PHILIP G. MURPH	OGLL	-67.75	3-11	-.14	-59.46	61	-67.61	71	61,66,71,76
16S 37E 10 413	PHILIP G. MURPH	OGLL	-65.51	3-11	+6.79	-58.46	61	-72.30	71	61,66,71,76
16S 37E 11 111	M.J. TAYLOR	OGLL	-72.46	1-14	-1.45	-31.93	49	-73.45	75	49-76
16S 37E 12 213	E. J. YADON	OGLL	-67.87	3-11	-3.69	-60.73	66	-64.18	71	66,71,76
16S 37E 12 221	E. J. YADON	OGLL	-61.85	3-11	-3.12	-47.62	61	-58.73	71	61,66,71,76
16S 37E 14 211	GREEN	OGLL	-72.17	1-14	+.24	-39.73	50	-73.66	72	50-76
16S 37E 19 241	H. T. MONTEITH	OGLL	-44.65	3-17	+1.67	-38.57	61	-46.32	71	61,66,71,76
16S 37E 19 324	H. T. MONTEITH	OGLL	-44.09	3-17	-1.36	-37.87B	66	-37.87B	66	66,71,76
16S 37E 22 432	CYNTHIA MEDLIN	OGLL	-44.66A	3-12	-3.29	-32.86B	61	-32.86B	61	61,66,71,76
16S 37E 23 211	MITSU HARADA	OGLL	-61.68	3-12	+2.49	-55.85	66	-64.17	71	66,71,76
16S 37E 23 212	MITSU HARADA	OGLL	-64.26	3-12	-3.36	-49.74	61	-60.90	70	61,70-71,76
16S 37E 24 233	BERT AND J. R. DORITY	OGLL	-69.33	3-17	-	-52.73	61	-60.93	66	61,66,76
16S 37E 25 111	R.L. DAVIS	OGLL	-71.97B	1-14	-11.48	-36.87	50	-62.63	75	50-76
16S 37E 25 313	W. T. DAVIS	OGLL	-57.88	3-11	-4.64	-46.92	61	-53.24	71	61,66,71,76
16S 37E 28 434	ELBERT SHIPP	OGLL	-37.69	3-17	+4.82	-30.28B	61	-30.28B	61	61,66,71,76
16S 37E 29 114	H. T. MONTEITH	OGLL	-38.65	3-17	-1.99	-30.30B	61	-30.30B	61	61,66,71,76
16S 37E 29 222	H. T. MONTEITH	OGLL	-34.39	3-17	-2.69	-29.84	66	-29.84	66	61,66,71,76
16S 37E 31 111	CITY OF LOVINGTON	OGLL	-70.94	3-17	-6.99	-48.20	61	-63.95	71	61,66,71,76
16S 37E 31 322	CITY OF LOVINGTON	OGLL	-61.93	3-17	-6.04	-41.41	61	-55.89	71	61,66,71,76
16S 37E 36 434	LEE STILES ESTATE	OGLL	-58.10A	3-12	-2.66	-45.90A	61	-45.90A	61	61,66,71,76
16S 38E 01 131	ROBERTS AND WAITS	OGLL	-43.09	3-05	-2.35	-36.27A	61	-36.27A	61	61,66,71,76
16S 38E 03 233	J. P. CAUDILL	OGLL	-42.03	3-09	-2.41	-31.57	61	-39.62	71	61,66,71,76
16S 38E 03 333	STATE OF N. MEX.	OGLL	-41.25	1-14	+2.86	-24.60	56	-44.11	71	54-76
16S 38E 04 132	J. P. CAUDILL	OGLL	-42.20A	3-11	-.90	-32.34	61	-32.34	61	61,66,71,76
16S 38E 07 131	WALTER LAWRENCE	OGLL	-56.68	3-10	-3.13	-44.08	61	-53.55	71	61,66,71,76
16S 38E 07 141	WALTER LAWRENCE	OGLL	-44.72	3-10	+18.67	-54.69	61	-63.39	71	61,66,71,76
16S 38E 09 213	TROY COLLIER	OGLL	-46.47	3-11	-	-46.47	76	-46.47	76	76
16S 38E 10 221	J. L. RHODES	OGLL	-43.97	3-09	-	-30.65	61	-30.65	61	61,76
16S 38E 12 112	THOMAS WIER	OGLL	-51.86	3-04	-4.48	-39.34	61	-47.38	71	61,66,71,76
16S 38E 15 431	W. V. LAWRENCE	OGLL	-55.43	3-09	-2.83	-42.30	61	-52.60	71	61,66,71,76
16S 38E 19 111	FRED WILSON	OGLL	-59.33	3-10	-5.28	-45.93	61	-54.05	71	61,66,71,76
16S 38E 19 112	FRED C. WILSON	OGLL	-57.54	3-10	-4.10	-45.21	61	-53.44	71	61,66,71,76
16S 38E 21 131	FRED E. WILSON	OGLL	-55.90	3-10	-2.96	-44.68	61	-52.94	71	61,66,71,76
16S 38E 21 313	FRED E. WILSON	OGLL	-60.10	3-10	-3.46	-49.10	61	-56.64	71	61,66,71,76
16S 38E 23 111	W.V. LAWRENCE	OGLL	-57.10	3-09	-2.63	-50.78	66	-54.47	71	66,71,76
16S 38E 24 433	PRICE AND GRAHUNDER	OGLL	-60.97	3-03	-2.35	-51.69	61	-58.62	71	61,66,71,76
16S 38E 26 211	R. C. EAVES	OGLL	-58.20	3-05	-.82	-48.20	61	-57.38	71	61,66,71,76
16S 38E 27 111	WOODYS ACRES INC.	OGLL	-80.04	1-14	-7.67	-32.89	50	-80.04	76	50-76
16S 38E 27 313	WOODYS ACRES	OGLL	-97.01	3-09	-3.63	-73.90	61	-93.38	71	61,66,70-71,76

A well being pumped

B well pumped recently

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
16S 38E 27 434	WOODYS ACRES	OGLL	-79.84	3-09	-5.94	-70.20	66	-73.90	71	66,71-76
16S 38E 29 111	E. J. YADON	OGLL	-59.20	3-10	-6.80	-49.21	61	-53.44	66	61,66,71-76
16S 38E 30 211	MITCHELL	OGLL	-56.53	1-14	-.38	-36.82	51	-57.76	70	51-64,67-76
16S 38E 30 311	WILMER AND W. MANNEY	OGLL	-60.44	3-10	-4.15	-53.23	61	-56.51	66	61,66,71-76
16S 38E 30 413	WILMER MANNEY	OGLL	-63.91	3-10	-5.17	-52.78	61	-58.74	71	61,66,71,76
16S 38E 31 244	LEE STILES	OGLL	-70.20	3-10	-3.76	-57.30A	61	-57.30A	61	61,66,71-76
16S 38E 32 421	DOROTHY NORRIS	OGLL	-86.34	3-10	-4.62	-66.96	61	-81.72	71	61,66,71-76
16S 38E 34 131A	WOODYS ACRES INC.	OGLL	-98.77	1-14	-14.58	-63.47	59	-98.77	76	52,59-76
16S 38E 35 124	WOODYS ACRES	OGLL	-68.48	3-05	-5.56	-50.35	61	-62.92	71	61,66,70-71,76
16S 38E 35 211	WOODYS ACRES	OGLL	-66.67	3-05	-4.33	-62.34	71	-69.11	61	61,71,76
16S 38E 35 331	W. W. HAMILTON	OGLL	-77.84	3-05	-6.16	-53.14	61	-71.68	71	61,66,71,76
16S 39E 05 311	W. V. LAWRENCE	OGLL	-67.98	3-04	-5.00	-55.65	61	-62.98	71	61,66,71,76
16S 39E 06 311	W. V. LAWRENCE	OGLL	-48.18	3-04	-3.09	-38.18	61	-45.09	71	61,66,71,76
16S 39E 07 331	W. V. LAWRENCE	OGLL	-58.76	3-04	-3.91	-51.76	66	-54.85	71	66,71-76
16S 39E 17 311	R. A. CARR	OGLL	-72.98	3-04	-3.95	-61.47	61	-69.03	71	61,71,76
16S 39E 17 344	W. P. COOKE	OGLL	-81.55	3-04	-5.65	-67.90	61	-75.90	71	61,66,71,76
16S 39E 20 411	L. E. SIMS	OGLL	-75.27	3-04	-6.43	-59.10	61	-68.84	71	61,66,71,76
16S 39E 29 233	SIMS AND HOLDER	OGLL	-84.86	1-14	-9.36	-54.85	50	-84.86	76	50-58,60-76
16S 39E 29 343	RITTA HOLDER	OGLL	-86.28	3-03	-9.06	-65.43	66	-89.00	70	61,66,70-71,76
17S 32E 01 222	WATER FLOOD ASSOC. IN	OGLL	-228.60	2-16	-	-228.60	76	-228.60	76	76
17S 32E 01 323	BILL PASCHALL	OGLL	-166.74	2-16	-	-151.27	61	-166.74	76	61,66,76
17S 32E 03 321	BUFFALO OIL CO.	OGLL	-162.60	2-17	-.39	-162.21	71	-162.60	76	61,71,76
17S 32E 03 433	CONOCO	OGLL	-137.40	2-16	-.51	-136.86	66	-137.40	76	61,66,71,76
17S 32E 11 343	TAYLOR	OGLL	-48.68	3-01	-1.57	-47.11	71	-47.11	71	61,71,76
17S 32E 14 121	TAYLOR	OGLL	-32.35A	3-01	-.82	-31.53	71	-31.53	71	66,71,76
17S 33E 06 424	SANTIAGO	OGLL	-163.53	2-17	+18.41	-163.53	76	-181.94	71	61,66,71,76
17S 33E 07 141	BILL PASCHALL	OGLL	-187.95	2-17	+4.59	-187.95	76	-192.54	71	61,66,71,76
17S 33E 07 323	PHILLIPS PET. CO.	OGLL	-189.60	2-17	-.99	-188.61	71	-189.92	66	61,66,71,76
17S 33E 08 133	UNKNOWN	OGLL	-175.50	2-17	-	-175.50	76	-175.50	76	76
17S 33E 09 342	UNKNOWN	OGLL	-172.98	2-17	-1.59	-171.39	71	-172.98	76	61,66,71,76
17S 33E 13 341	POTASH CO. OF AMERICA	OGLL	-167.18	1-13	-5.84	-146.36	53	-167.18	76	53-76
17S 33E 18 322	CONOCO	OGLL	-194.77	3-01	-	-182.83	71	-182.83	71	61,76
17S 33E 20 241	G. H. W.	OGLL	-163.70	2-18	-.25	-163.45	71	-165.34	66	66,71,76
17S 33E 22 432	UNKNOWN	OGLL	-150.35	2-18	+4.82	-150.35	76	-159.02	66	61,66,71,76
17S 33E 23 313	PHILLIPS PET. CO.	OGLL	-159.95	3-02	-2.33	-157.62	71	-157.62	71	61,66,71,76
17S 33E 29 222	EL PASO NAT. GAS	OGLL	-200.50	2-18	-	-200.50	76	-200.50	76	61,76
17S 33E 29 344	UNKNOWN	OGLL	-61.10	2-18	+.33	-61.10	76	-61.71	66	61,66,71,76
17S 33E 33 234	GEORG WILLIAMS	ALVM	-120.45	2-18	-	-120.45	76	-120.45	76	76
17S 34E 02 131	MILLARD EIDSON	OGLL	-85.35	2-19	+.59	-85.35	76	-85.35	76	61,66,71,76
17S 34E 02 343	S. P. YATES	OGLL	-87.25	2-19	-1.10	-84.53	61	-87.25	76	61,66,71,76
17S 34E 04 432	WOOD RIVER OIL CO.	OGLL	-100.95	2-19	-1.16	-99.79	71	-100.95	76	61,66,71,76
17S 34E 07 213	UNKNOWN	OGLL	-131.50	2-19	-1.17	-129.34	66	-131.50	76	61,66,71,76
17S 34E 08 141	DELFEIN OIL CO	OGLL	-120.40	2-19	-1.51	-116.52	61	-120.40	76	61,66,71,76
17S 34E 10 223	MAGNOLIA PET. CO.	OGLL	-93.36	3-02	-1.37	-90.90	61	-91.99	71	61,66,71,76
17S 34E 11 244	S. P. YATES	OGLL	-88.70	2-19	+.41	-85.12	61	-89.11	71	61,66,71,76
17S 34E 13 433	TEXACO	OGLL	-121.30	2-18	-41.60	-79.70	71	-121.30	76	61,66,71,76
17S 34E 14 111	UNKNOWN	OGLL	-92.49	3-02	-2.68	-79.12	61	-89.81	71	61,66,71,76
17S 34E 14 144	MAGNOLIA PET. CO	OGLL	-106.73	3-03	-	-93.16	61	-93.16	61	61,76
17S 34E 18 443	POTASH CO. OF AMERICA	OGLL	-140.43	2-19	-2.69	-135.05	66	-140.43	76	61,66,71,76
17S 34E 23 433	MOBIL OIL CO.	OGLL	-115.12	3-02	-	-115.12	76	-115.12	76	76
17S 34E 24 211	MAG. PET. CO.	OGLL	-88.52	3-03	-2.74	-83.05	61	-85.78	71	61,66,71,76
17S 34E 25 213	MAG. PET. CO.	OGLL	-83.10	2-20	-2.91	-74.06	61	-83.10	76	61,71,76
17S 34E 28 223	SOUTHWEST POTASH	OGLL	-148.57	1-13	-12.50	-133.01	69	-153.41	68	68-76
17S 34E 28 223	SOUTH WEST POTASH CO.	OGLL	-148.91	3-03	-12.75	-136.16	71	-136.16	71	61,66,71,76
17S 34E 31 142	UNKNOWN	OGLL	-134.60	2-19	-3.84	-134.60	76	-134.60	76	61,66,71,76
17S 34E 32 123	UNKNOWN	OGLL	-138.49	2-19	-3.78	-134.71	71	-138.49	76	66,71,76
17S 34E 32 413	SCHARBAUER CATTLE CO.	OGLL	-138.00	2-19	-5.14	-130.50	66	-138.00	76	61,66,71,76
17S 34E 35 130	STATE OF N. MEX.	OGLL	-119.34	1-13	-14.84	-89.88	53	-119.34	76	44-58,60-76
17S 34E 36 224	GETTY OIL CO.	OGLL	-86.48	2-20	-4.90	-77.80	61	-86.48	76	61,66,71,76
17S 34E 36 311	MAG. PET. CO.	OGLL	-93.18	2-20	-7.83	-78.64	61	-93.18	76	61,66,71,76
17S 35E 01 444	DOROTHY SCHARBAUER	OGLL	-50.12	3-16	+1.57	-65.30	76	-65.30	76	61,66,71,76
17S 35E 07 342	MILLARD EIDSON	OGLL	-71.98	3-03	-.64	-71.34	71	-71.34	71	61,66,71,76
17S 35E 11 111	MILLARD EIDSON	OGLL	-39.52	3-16	+.72	-39.02	66	-39.02	66	61,66,71,76
17S 35E 13 322	DOROTHY SCHARBAUER	OGLL	-40.86	3-16	+1.63	-65.30	76	-65.30	76	61,66,71,76
17S 35E 14 132	VIOLA LEE	OGLL	-40.93	3-17	+4.08	-65.30	76	-65.30	76	61,66,71,76
17S 35E 19 142	OHIO OIL CO.	OGLL	-66.00	3-03	-1.42	-62.60	61	-64.58	71	61,66,71,76
17S 35E 20 134	L. H. HARPER	OGLL	-63.35	3-03	-	-61.06	61	-61.06	61	61,66,76
17S 35E 21 231	GILES LEE	OGLL	-46.40C	3-17	-	-46.40C	76	-46.40C	76	76
17S 35E 23 334	NEVILLE G. PENROSE IN	OGLL	-37.81	3-04	+.93	-37.09	61	-37.09	61	61,66,71,76
17S 35E 24 223	ROSS BENNETT	OGLL	-38.76	3-04	+1.74	-40.39	66	-40.50	71	61,66,71,76
17S 35E 25 131	GREAT WESTERN DRLG. C	OGLL	-43.60	3-04	+.51	-42.57	61	-44.11	71	61,66,71,76
17S 35E 28 223	ZAPATA OIL CO.	OGLL	-47.60	3-17	-.21	-46.21	61	-47.39	71	61,66,71,76
17S 35E 31 434	PHILLIPS PET. CO.	OGLL	-71.12	3-04	-3.74	-63.93	61	-67.38	71	61,66,71,76
17S 35E 32 211	EXXON OIL CO.	OGLL	-69.56	3-04	-	-69.56	76	-69.56	76	76
17S 35E 33 343	PHILLIPS PET. CO.	OGLL	-61.26	3-04	-1.53	-59.73	71	-59.73	71	61,66,71,76
17S 35E 34 123	MAGNOLIA PET. CO.	OGLL	-52.10	3-04	-2.46	-48.47	61	-49.64	71	61,66,71,76
17S 35E 35 213	STATE OF N. MEX.	OGLL	-42.56	3-04	-	-37.94	59	-41.26	70	44-70,76
17S 35E 36 311	AMERADA PET. CO.	OGLL	-42.34	3-04	+.49	-42.83	71	-42.83	71	61,66,71,76
17S 36E 02 244	JACK CAYTON	OGLL	-52.10	2-25	-2.47	-45.84	66	-52.10	76	61,66,71,76
17S 36E 02 312	CAREY M. GRAHAM	OGLL	-50.50	2-26	+.23	-50.50	76	-50.73	71	61,66,71,76

A well being pumped

C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
17S 36E 02 411	JACK CAYTON	OGLL	-44.86	2-25	-.73	-43.95	66	-44.86	76	61,66,71,76
17S 36E 03 421	CAREY M. GRAHAM	OGLL	-57.80	2-26	+.12	-57.80	76	-57.92	66	61,66,71,76
17S 36E 05 311	C. M. GRAHAM	OGLL	-57.37	2-26	+3.33	-57.20	61	-60.70	71	61,66,71,76
17S 36E 05 324	UNKNOWN	OGLL	-57.24	2-26	+1.88	-56.57	61	-59.12	71	61,66,71,76
17S 36E 07 121	PAN AMERICAN	OGLL	-47.73	2-26	+1.13	-47.44	61	-48.86	71	61,66,71,76
17S 36E 07 414	TEXACO	OGLL	-39.98	2-26	+1.95	-39.98	76	-41.93	71	61,66,71,76
17S 36E 08 411	TEXACO	OGLL	-48.64	3-03	+1.71	-48.64	61	-50.35	71	61,66,71,76
17S 36E 10 111	O.T. SCHARBAVER	OGLL	-41.66	2-25	+1.71	-41.66	76	-43.37	71	71,76
17S 36E 12 121	FRED TURNER JR.	OGLL	-44.10	2-27	-2.12	-41.98	71	-44.10	76	61,66,71,76
17S 36E 12 223	WM. D. MCBEE	OGLL	-46.91	2-27	-1.97	-44.94	71	-46.91	76	61,66,71,76
17S 36E 12 323	D. T. SCHARBAUER	OGLL	-40.41	2-27	-.03	-37.01	66	-40.41	76	61,66,71,76
17S 36E 14 411	D. T. SCHARBAUER	OGLL	-32.96	2-27	+1.57	-32.96	76	-33.36	66	61,66,71,76
17S 36E 15 142	D. T. SCARBAUER	OGLL	-33.31	3-03	+2.44	-34.55	66	-34.55	66	61,66,71,76
17S 36E 17 343	HUMBLE OIL CO.	OGLL	-39.99	2-26	+1.44	-39.99	76	-41.43	71	61,66,71,76
17S 36E 17 441	FRED TURNER	OGLL	-41.28	2-26	+.94	-41.28	76	-42.22	71	61,66,71,76
17S 36E 18 444	FRED TURNER	OGLL	-35.19	2-26	+1.47	-35.19	76	-36.66	71	61,66,71,76
17S 36E 19 211	FRED TURNER	OGLL	-34.91	2-26	+1.89	-34.91	76	-34.91	76	61,66,71,76
17S 36E 23 132	FRED TURNER	OGLL	-30.31	3-02	+1.39	-31.70	71	-31.70	71	61,66,71,76
17S 36E 25 123	UNKNOWN	OGLL	-30.36	3-02	+1.13	-31.49	71	-31.49	71	61,66,71,76
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-38.24	1-13	-.39	-33.05	49	-38.24	76	48-76
17S 36E 29 211	VIOLA AND GILES M. LE	OGLL	-56.42	3-16	-12.22	-44.20	71	-44.20	71	61,66,71,76
17S 36E 33 331	R. D. LEE	OGLL	-58.88C	3-11	-7.75	-48.04	61	-51.13	71	61,66,71,76
17S 36E 34 331	FRED TURNER JR.	OGLL	-45.39	3-02	-1.23	-37.71	61	-44.16	71	61,66,71,76
17S 36E 35 131	D. T. SCARBAUER	OGLL	-42.45	3-02	-.83	-39.27	61	-41.62	71	61,66,71,76
17S 37E 01 411	LEE STILES	OGLL	-68.99	2-18	-	-46.55	61	-68.99	76	61,66,76
17S 37E 02 321	BILL PRITCHETT	OGLL	-62.61	2-19	-	-47.01	61	-62.61	76	61,76
17S 37E 03 313	DOYCE E. COOK	OGLL	-51.84	2-19	+.16	-43.84	61	-52.00	71	61,66,71,76
17S 37E 05 412	FRANK AND HENRY COVER	OGLL	-48.03	2-25	-3.51	-36.54	61	-48.03	76	61,66,71,76
17S 37E 06 411	TROY E. WRIGHT	OGLL	-54.17	2-25	-2.13	-38.46	61	-54.17	76	61,66,71,76
17S 37E 07 211	E. D. SHIPP	OGLL	-47.59	2-25	+1.53	-35.78	61	-49.12	71	61,66,71,76
17S 37E 10 211	S.M. REILAND	OGLL	-52.27	1-14	-1.57	-32.87	49	-55.95	75	49-76
17S 37E 12 113	LEE STILES	OGLL	-72.52	1-14	-5.17	-40.69	50	-72.52	76	50-76
17S 37E 13 112	G. T. HANNERS	OGLL	-67.91	2-19	-.61	-53.15	61	-67.91	76	61,66,71,76
17S 37E 13 312	W.V. LAWRENCE	OGLL	-55.29	2-19	-	-25.71	43	-55.29	76	39-62,76
17S 37E 14 111	R. L. DAVIS	OGLL	-57.15	2-19	-.70	-45.84	61	-57.15	76	61,66,71,76
17S 37E 18 414	E. D. SHIPP	OGLL	-42.71	2-25	-1.89	-38.62	66	-42.71	76	61,66,71,76
17S 37E 21 223	EMMA KIMBROUGH	OGLL	-47.00	2-25	-.54	-42.53	61	-47.00	76	61,66,71,76
17S 37E 21 334	EMMA KIMBROUGH	OGLL	-43.36	2-25	-.74	-38.75	66	-43.36	76	61,66,71,76
17S 37E 23 113	J. C. CROW	OGLL	-56.21	2-18	-3.28	-50.25	61	-56.21	76	61,66,71,76
17S 37E 23 214	S.M. DAVIS	OGLL	-63.14	2-19	-	-59.51	66	-63.14	76	66,76
17S 37E 24 411	L. L. LORANG	OGLL	-65.60	2-24	-.87	-47.30	61	-65.60	76	61,66,71,76
17S 37E 25 411	CARL ALEXANDER	OGLL	-53.43	2-18	+8.64	-41.80	61	-62.07	71	61,66,71,76
17S 37E 26 411	MOTSENBOCHER ESTATE	OGLL	-53.70	2-18	-	-53.70	76	-53.70	76	76
17S 37E 26 411	J. W. MOTSENBOCKER	OGLL	-52.25	2-18	-.44	-40.54	61	-52.25	76	61,66,71,76
17S 37E 27 412	LOUIS EUBANK	OGLL	-54.29	2-20	-	-42.56	61	-54.29	76	61,76
17S 37E 32 331	O. V. CULP	OGLL	-38.34	2-20	-1.03	-34.18	61	-38.34	76	61,66,71,76
17S 37E 32 424	CRAWFORD CULP	OGLL	-44.58	2-20	+4.62	-37.00	61	-44.58	76	61,66,71,76
17S 37E 34 111	C.G. GOODWIN	OGLL	-60.71	1-14	-1.85	-42.13	57	-69.74	73	57-76
17S 37E 34 411	PITCHFORK CATTLE CO.	OGLL	-53.22	2-20	-.44	-40.66	66	-53.22	76	61,66,71,76
17S 37E 35 433	WILLFORD IVEY	OGLL	-45.96	2-27	-.59	-35.54	61	-45.96	76	61,66,71,76
17S 37E 36 113	J. A. JOHNSON	OGLL	-51.45	2-17	-2.87	-38.55	61	-51.45	76	61,66,71,76
17S 38E 02 311	W.V. LAWRENCE	OGLL	-73.35	1-14	-5.34	-43.65	51	-73.35	76	49-76
17S 38E 03 111	UNKNOWN	OGLL	-90.45	2-27	-13.28	-58.64	61	-90.45	76	61,66,71,76
17S 38E 04 111	JAMES R. NORRIS	OGLL	-94.04	3-03	-	-70.58	61	-80.16	66	61,66,76
17S 38E 04 442	JAMES R. TEAGUE	OGLL	-77.45	2-27	-8.54	-61.93	66	-77.45	76	66,71,76
17S 38E 05 133	E. F. AND LULA V. OLD	OGLL	-72.35	3-03	-4.08	-57.88	61	-68.27	71	61,66,71,76
17S 38E 07 111A	L.R. SEBRINGS	OGLL	-63.49	1-14	-4.65	-35.94	52	-64.17	75	52-76
17S 38E 07 311	RAY BURNETTA	OGLL	-60.29	3-03	-2.60	-46.92	61	-59.06	66	61,66,71,76
17S 38E 08 211	J.J. HANDLEY JR.	OGLL	-67.18	1-14	-5.00	-36.46	50	-67.99	75	50-57,59-76
17S 38E 09 331	CLAY BARGER	OGLL	-57.17	3-03	-4.44	-42.72	61	-52.73	71	61,66,71,76
17S 38E 11 113	LUTHER COOPER	OGLL	-74.63	2-27	-4.27	-60.22	61	-74.63	76	61,66,71,76
17S 38E 14 414	J. M. GARDNER	OGLL	-63.90	2-27	+1.50	-57.74	61	-65.40	71	61,66,71,76
17S 38E 15 224	W. V. LAWRENCE	OGLL	-67.15	2-27	-2.84	-61.13	61	-67.15	76	61,66,71,76
17S 38E 15 313	W. V. LAWRENCE	OGLL	-52.25	2-27	-2.89	-44.14	61	-52.25	76	61,66,71,76
17S 38E 20 222	M. L. FULLINGHAM	OGLL	-49.16	3-02	-4.02	-35.63	61	-45.14	71	61,66,71,76
17S 38E 23 111	W.V. LAWRENCE	OGLL	-49.66	3-03	-	-36.01	49	-42.44	60	49-62,76
17S 38E 24 133	W.V. LAWRENCE	OGLL	-50.55	1-14	-1.79	-41.30	50	-57.00	70	50-58,60-64,66-76
17S 38E 25 131	W. V. LAWRENCE	OGLL	-49.80	2-26	-1.91	-42.55	61	-49.80	76	61,66,71,76
17S 38E 25 243	W. V. LAWRENCE	OGLL	-62.13	2-26	-.85	-61.28	71	-64.92	61	61,66,71,76
17S 38E 26 133	W. H. COLEMAN	OGLL	-45.60	2-26	-3.84	-33.09	61	-45.60	76	61,66,71,76
17S 38E 30 121	B.V. PRITCHETT	OGLL	-59.09	3-02	-2.12	-44.80	61	-56.97	71	61,66,71,76
17S 38E 31 211	JOSE S. TORREZ	OGLL	-61.08	3-02	-4.11	-44.27	61	-56.97	71	61,66,71,76
17S 38E 31 311	G.L. BEENE	OGLL	-51.33	1-14	-.78	-26.71	49	-51.33	76	49-71,74-76
17S 38E 31 414	ALEXANDER BROS.	OGLL	-48.15	3-03	+.41	-38.94	61	-48.56	71	61,66,71,76
17S 38E 32 232	CURTIS JONES	OGLL	-63.76	3-03	+3.14	-55.77	61	-66.90	71	61,66,71,76
17S 38E 34 113	W.E. BUSBY	OGLL	-49.79	1-14	-6.14	-24.78	44	-49.79	76	44-64,66-76
17S 38E 35 144	EMMA G. LAWRENCE	OGLL	-60.43	2-26	-3.50	-42.19	61	-60.43	76	61,66,71,76
17S 38E 35 423	M.K. CHAMBLESS	OGLL	-70.37	1-30	-	-70.37	76	-70.37	76	76
17S 39E 18 133	C. E. BROOKS	OGLL	-82.21	2-26	-4.14	-71.25	61	-82.21	76	61,71,76
17S 39E 18 332	C. E. BROOKS	OGLL	-70.69	3-02	-6.65	-58.18	61	-64.04	71	61,66,71,76

C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
17S 39E 31 421	W. V. LAWRENCE	OGLL	-63.37	2-25	+1.02	-58.10	61	-64.39	71	61,66,71,76
17S 39E 32 413	W. V. LAWRENCE	OGLL	-84.43	2-26	-4.26	-76.77	61	-84.43	76	61,66,71,76
18S 29E 24 233	MILLMAN RANCH	TRSC	-145.98	5-28	+14.22	-171.35	76	-171.35	76	68,71,76
18S 30E 22 211	WALTERS RANCH	TRCL	-214.38	5-28	-69.71	-144.67	71	-144.67	71	71,76
18S 30E 22 222	WALTERS RANCH	TRCL	-236.46	5-28	+2.80	-171.35	76	-171.35	76	68,71,76
18S 31E 01 444	WILLIAMS BROS.	TRCL	-454.56	5-27	+5.86	-460.42C	71	-460.42C	71	71,76
18S 31E 12 231	MAXWELL OIL CO.	TRCL	-434.45	5-27	+.89	-435.54	68	-435.54	68	68,71,76
18S 31E 14 221	BOB JOHNSON	TRCL	-376.92	5-27	+.38	-377.30	71	-377.30	71	71,76
18S 31E 35 313	KEOHANE SANDERS	TRCL	-260.53	5-27	+.55	-261.08	71	-261.08	71	71,76
18S 32E 07 442	LINAM RANCH	ALVM	-80.80	5-26	-	-23.20	71	-23.20	71	76
18S 32E 20 144	NEWMONT OIL CO.	TRCL	-173.51	5-27	+5.84	-179.35	71	-179.35	71	68,71,76
18S 32E 22 323	PET. CORP. OF TEXAS	TRCL	-427.89	5-21	+6.52	-431.60	68	-431.60	68	68,71,76
18S 32E 34 222	UNKNOWN	TRCL	-117.39	5-21	+.07	-86.53	76	-86.53	76	68,71,76
18S 33E 10 232	GEORGE WILLIAMS	QTAL	-57.86	2-18	-16.22	-41.64	71	-57.86	76	68,71,76
18S 33E 10 442	GEORGE WILLIAMS	OGLL	-44.75	2-18	-3.11	-41.64	71	-44.75	76	71,76
18S 33E 11 443	UNKNOWN	QTAL	-42.99	2-18	-.59	-42.40	71	-42.99	76	66,71,76
18S 33E 12 442	SCHARBAUER CATTLE CO.	QTAL	-137.66	2-17	-.18	-137.66	76	-137.66	76	61,66,71,76
18S 33E 13 131	JOHN H. TRIGG	QTAL	-32.19	2-17	-.34	-31.85	71	-32.19	76	61,71,76
18S 33E 13 442	UNKNOWN	QTAL	-46.55	2-17	+.11	-46.55	76	-46.66	71	61,66,71,76
18S 33E 14 111	UNKNOWN	QTAL	-36.41	2-18	-1.21	-35.20	71	-36.41	76	61,66,71,76
18S 33E 23 231	MARGIE T. KEOHANE	QTAL	-46.31	2-17	-.66	-45.65	71	-46.31	76	68,71,76
18S 33E 23 231B	MARGIE T. KEOHANE	QTAL	-47.12	2-17	-	-47.12	76	-47.12	76	76
18S 34E 01 122	TEXAS CO.	OGLL	-93.92	2-13	-	-93.92	76	-93.92	76	61,76
18S 34E 04 111	MESA RETAILERS INC.	OGLL	-131.73	2-13	-4.95	-126.78	71	-131.73	76	61,66,71,76
18S 34E 08 231	SCHARBAUR CATTLE CO.	OGLL	-108.97	2-13	-	-108.97	76	-108.97	76	76
18S 34E 11 432	UNKNOWN	OGLL	-107.75	2-13	+3.03	-107.75	76	-110.78	71	71,76
18S 34E 12 122A	SCHARBAUER CATTLE CO.	QTAL	-95.04	2-13	-	-95.04	76	-95.04	76	76
18S 34E 15 241	SCHARBAUER CATTLE CO.	OGLL	-109.17	2-19	-5.89	-109.17	76	-109.17	76	61,71,76
18S 34E 18 413	OHIO OIL CO.	OGLL	-146.17	2-17	-2.87	-143.30	71	-146.17	76	66,71,76
18S 34E 20 323	SCHARBAUER CATTLE CO.	OGLL	-99.03	2-12	-.11	-98.92	71	-99.03	76	61,66,71,76
18S 34E 22 343	CONOCO OIL CO.	OGLL	-109.99	1-13	-.19	-109.22	67	-110.82	72	65-76
18S 34E 27 333	SCHARBAUER CATTLE CO.	OGLL	-110.62	2-18	-.20	-110.62	76	-110.62	76	61,66,71,76
18S 34E 29 112	UNKNOWN	QTAL	-57.47	2-12	+2.93	-57.47	76	-60.40	71	68,71,76
18S 34E 30 211	IBEX OIL CO.	OGLL	-43.49	2-12	+.54	-43.49	76	-44.03	71	61,66,71,76
18S 35E 01 121	R. D. LEE	OGLL	-42.35	2-11	-.96	-41.39	71	-42.35	76	71,76
18S 35E 02 142	R. D. LEE	OGLL	-40.71	2-11	-.93	-39.78	71	-40.71	76	61,66,71,76
18S 35E 03 412	R. D. LEE	OGLL	-49.04	2-11	-1.70	-49.04	76	-49.04	76	61,66,71,76
18S 35E 04 243	CITIES SERVICE OIL CO	OGLL	-40.17	2-11	-.75	-39.05	61	-40.17	76	61,66,71,76
18S 35E 04 431	UNKNOWN	OGLL	-61.28	2-11	-1.09	-60.19	71	-61.28	76	66,71,76
18S 35E 06 233	VIOLA LEE	OGLL	-83.32	2-11	-	-83.32	76	-83.32	76	76
18S 35E 07 313	MOBIL OIL CO.	OGLL	-95.68	2-18	+2.23	-95.68	76	-97.91	71	66,71,76
18S 35E 07 423	NATIONAL POTASH CO.	OGLL	-82.17	2-11	-	-82.17	76	-82.17	76	76
18S 35E 08 314	NATIONAL POTASH CO.	OGLL	-78.03	2-11	+1.95	-73.44	61	-79.98	71	61,66,71,76
18S 35E 10 223	HANAGAN OIL CO.	OGLL	-49.00	2-11	-.84	-48.16	71	-49.00	76	66,71,76
18S 35E 11 333	R. D. LEA	OGLL	-37.48	2-11	-.68	-37.48	76	-37.48	76	61,66,71,76
18S 35E 13 144	UNKNOWN	OGLL	-38.35	2-11	-.32	-38.35	76	-38.35	76	71,76
18S 35E 16 122	UNKNOWN	OGLL	-63.42	2-11	-3.37	-63.42	76	-63.42	76	71,76
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-74.62	1-13	-.85	-69.49	56	-74.78	74	54-76
18S 35E 19 133	SCHARBAUER CATTLE CO.	OGLL	-69.28	2-12	-.45	-69.28	76	-69.28	76	61,66,71,76
18S 35E 20 144	I.M.C.C.	OGLL	-76.85	2-12	-	-75.70	61	-76.85	76	54-58,60-62,76
18S 35E 20 214	INT MIN AND CHEM CORP	OGLL	-73.68	1-13	-.37	-72.16	61	-73.73	74	54-58,60-76
18S 35E 22 344	STATE LAND	OGLL	-57.83	2-10	+.04	-57.83	76	-57.87	71	66,71,76
18S 35E 24 111	UNKNOWN	OGLL	-39.86	2-11	-.23	-39.63	71	-39.86	76	61,66,71,76
18S 35E 26 113	W. M. SNYDER	OGLL	-45.93	2-10	+.08	-45.93	76	-45.93	76	71,76
18S 35E 28 322	SCARBAUER CATTLE CO.	OGLL	-49.27	2-10	0.00	-49.27	76	-49.27	76	61,66,71,76
18S 35E 31 142A	SNYDER CATTLE CO.	OGLL	-70.27	2-13	-.09	-70.18	71	-70.27	76	71,76
18S 35E 34 433	UNKNOWN	QTAL	-25.02	2-12	-	-25.02	76	-25.02	76	76
18S 35E 35 231	PURE OIL CO.	OGLL	-57.55	2-10	-1.23	-56.32	71	-57.55	76	61,66,71,76
18S 36E 01 131	DOROTHY SCHARBAUER	OGLL	-30.73	2-04	-1.43	-30.73	76	-30.73	76	61,66,71,76
18S 36E 03 241	DOROTHY SCHARBAUER	OGLL	-48.57	2-04	-2.41	-46.16	71	-48.57	76	61,66,71,76
18S 36E 05 411	S. W. P. S. C.	OGLL	-57.73	2-10	-3.46	-54.27	71	-57.73	76	61,66,71,76
18S 36E 06 322	S. W. P. S. C.	OGLL	-51.73	2-10	-2.06	-49.67	71	-51.73	76	61,66,71,76
18S 36E 07 322	S. W. P. S. C.	OGLL	-54.56	2-06	-1.06	-53.50	71	-54.56	76	61,66,71,76
18S 36E 08 144	S. W. P. S. C.	OGLL	-51.69	2-06	-1.94	-49.75	71	-51.69	76	61,66,71,76
18S 36E 09 411	S. W. P. S. C.	OGLL	-47.99	2-10	-5.67	-42.32	71	-47.99	76	61,66,71,76
18S 36E 10 411	S. W. P. S. C.	OGLL	-46.81	2-10	-4.66	-42.15	71	-46.81	76	61,66,71,76
18S 36E 11 144	S. W. P. S. C.	OGLL	-55.45	2-10	-4.36	-45.28	61	-55.45	76	61,66,71,76
18S 36E 12 133	S. W. P. S. C.	OGLL	-40.18	2-10	-.26	-39.92	71	-40.18	76	61,66,71,76
18S 36E 12 233	JOHN R. JOYCE	OGLL	-34.74	2-04	-1.82	-32.92	71	-34.74	76	61,66,71,76
18S 36E 13 144	S. W. P. S. C.	OGLL	-28.41	2-11	-2.79	-25.62	71	-28.41	76	71,76
18S 36E 14 144	S. W. P. S. C.	OGLL	-44.69	2-11	-4.82	-32.69	61	-44.69	76	61,66,71,76
18S 36E 15 144	S. W. P. S. C.	OGLL	-51.74	2-11	-1.83	-49.91	71	-51.74	76	61,66,71,76
18S 36E 16 411	S. W. P. S. C.	OGLL	-50.99	2-10	-4.71	-46.28	71	-50.99	76	61,66,71,76
18S 36E 17 322	S. W. P. S. C.	OGLL	-44.99	2-05	-3.23	-41.76	71	-44.99	76	61,66,71,76
18S 36E 18 144	S. W. P. S. C.	OGLL	-49.64	2-06	-.15	-39.52	61	-49.64	76	61,66,71,76
18S 36E 19 322	S. W. P. S. C.	OGLL	-49.59	2-05	+.82	-49.59	76	-49.59	76	61,66,71,76
18S 36E 20 411	S. W. P. S. C.	OGLL	-53.30	2-05	-7.12	-46.18	71	-53.30	76	61,66,71,76
18S 36E 21 411	S. W. P. S. C.	OGLL	-49.75	2-05	-3.45	-46.30	71	-49.75	76	61,66,71,76
18S 36E 22 144	S. W. P. S. C.	OGLL	-49.10	2-11	-1.34	-47.76	71	-49.10	76	66,71,76
18S 36E 23 111	N. M. ELEC. SERVICE C	OGLL	-44.16	2-03	-7.36	-36.80	71	-44.16	76	71,76

C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
18S 36E 23 322	N. M. ELECT. SERV. CO	OGLL	-41.07	2-03	-.66	-40.41	71	-41.07	76	71,76
18S 36E 24 233	N. M. ELEC. SERV. CO.	OGLL	-38.33	2-03	-6.65	-31.68	71	-38.33	76	71,76
18S 36E 24 313	MRS. Z. A. MCMILLAN	OGLL	-37.18	2-04	-3.30	-37.18	76	-37.18	76	61,66,71,76
18S 36E 25 423	NEW MEXICO ELECTRIC	OGLL	-47.64	2-03	-	-47.64	76	-47.64	76	76
18S 36E 26 233	N. M. E. S. CO.	OGLL	-47.40	2-03	-2.87	-44.53	71	-47.40	76	71,76
18S 36E 27 111	STATE OF N. MEX.	OGLL	-44.63	1-13	-.36	-38.13	43	-45.60	74	43-76
18S 36E 27 233	N. M. E. S. CO.	OGLL	-40.17	2-03	+1.42	-40.17	76	-41.59	71	71,76
18S 36E 28 411	S. W. P. S. C.	OGLL	-36.81	2-05	+3.93	-36.81	76	-40.74	71	61,66,71,76
18S 36E 29 322	S. W. P. S. C.	OGLL	-52.98	2-05	-5.43	-47.55	71	-52.98	76	61,66,71,76
18S 36E 30 233	S. W. P. S. C.	OGLL	-47.71	2-05	+4.40	-47.71	76	-52.11	71	71,76
18S 36E 31 133	W. M. SNYDER	OGLL	-43.01	1-30	+1.77	-43.01	76	-43.01	76	61,66,71,76
18S 36E 33 313	W. M. SNYDER	OGLL	-49.15	2-05	-	-49.15	76	-49.15	76	61,76
18S 36E 34 322	N. M. E. S. C.	OGLL	-49.71	2-03	+5.85	-49.71	76	-55.56	71	71,76
18S 36E 35 233	UNKNOWN	OGLL	-62.62	2-03	-12.25	-50.37	71	-62.62	76	71,76
18S 36E 35 444A	UNKNOWN	OGLL	-37.13	1-30	-1.33	-35.80	71	-37.13	76	71,76
18S 36E 36 422	EL PASO NAT. GAS CO.	OGLL	-70.20C	2-04	+1.64	-60.90	61	-60.90	61	61,71,76
18S 36E 36 442	EL PASO NAT. GAS CO.	OGLL	-69.63C	2-04	-	-66.85	66	-66.85	66	66,76
18S 37E 04 211	CRAWFORD CULP	OGLL	-51.82	1-28	-1.77	-37.05	61	-51.82	76	61,66,71,76
18S 37E 06 131	C. CULP	OGLL	-34.59	1-28	+11.00	-34.59	76	-45.59	71	71,76
18S 37E 07 133	CRAWFORD CULP	OGLL	-29.05	1-28	-.94	-27.49	66	-29.05	76	66,71,76
18S 37E 10 331	SHIPP ESTATE	OGLL	-29.08	1-28	-.30	-28.78	71	-29.08	76	61,66,71,76
18S 37E 13 244	MORAN OIL CO.	OGLL	-28.63	1-28	+.36	-28.63	76	-28.99	71	61,66,71,76
18S 37E 13 431	UNKNOWN	OGLL	-20.25	1-28	+4.41	-20.25	76	-24.66	71	71,76
18S 37E 14 242	H. G. HUSTON	OGLL	-23.10	1-28	+1.82	-23.10	76	-24.92	71	61,66,71,76
18S 37E 14 344	GULF OIL CO.	OGLL	-24.95	1-28	+2.53	-24.95	76	-27.48	71	61,66,71,76
18S 37E 15 221	T. SHIPP	OGLL	-28.18	1-28	+1.92	-28.18	76	-28.18	76	61,66,71,76
18S 37E 15 444	T. SHIPP ESTATE	OGLL	-23.02	1-28	+2.68	-23.02	76	-25.70	71	61,71,76
18S 37E 16 111	T. SHIPP ESTATE	OGLL	-30.28	1-28	+1.02	-30.28	76	-30.28	76	61,66,71,76
18S 37E 18 413	GEO. A. GRAHAM SR.	OGLL	-28.86	1-29	-.13	-28.73	71	-28.86	76	61,66,71,76
18S 37E 20 323	MRS. T. SHIPP	OGLL	-30.07	1-29	+.33	-30.07	76	-30.07	76	61,66,71,76
18S 37E 21 423	ELBERT SHIPP	OGLL	-21.38	1-29	+2.60	-21.38	76	-21.38	76	61,66,71,76
18S 37E 23 131	UNKNOWN	OGLL	-20.77	1-29	+3.00	-20.77	76	-23.77	71	71,76
18S 37E 23 222	SHELL OIL CO.	OGLL	-20.08	1-29	+2.70	-20.08	76	-22.78	71	61,66,71,76
18S 37E 23 442	JOHN YATES	OGLL	-20.26	1-29	+2.31	-20.26	76	-22.57	71	61,66,71,76
18S 37E 24 132	UNKNOWN	OGLL	-20.77	1-28	+2.66	-20.77	76	-23.43	71	71,76
18S 37E 25 422	HUMBLE OIL CO.	OGLL	-32.25	1-29	+.81	-32.25	76	-33.06	71	61,71,76
18S 37E 27 133	UNKNOWN	OGLL	-25.90	1-29	+2.23	-25.90	76	-28.13	71	71,76
18S 37E 29 313	E. W. COX	OGLL	-37.02	1-29	+1.05	-37.02	76	-38.07	71	66,71,76
18S 37E 33 443	AZTEC OIL CO.	OGLL	-29.83	1-30	+2.87	-29.83	76	-32.70	71	61,66,71,76
18S 37E 34 313	UNKNOWN	OGLL	-25.87	1-30	+3.32	-25.87	76	-25.87	76	66,71,76
18S 37E 35 111	E. H. KLEIN	OGLL	-22.21	1-29	+3.26	-22.21	76	-25.47	71	61,66,71,76
18S 37E 35 424	A. V. MCBEE	OGLL	-26.53	1-29	-2.11	-24.42	71	-26.53	76	61,66,71,76
18S 38E 01 211	TED ROSE	OGLL	-82.97	2-12	-4.63	-78.34	71	-82.97	76	61,66,71,76
18S 38E 02 142	E. L. BRYSON	OGLL	-66.50	2-12	-7.82	-41.00	61	-66.50	76	61,66,71,76
18S 38E 03 113	HENRY MCQUEEN	OGLL	-56.33	2-12	-6.98	-37.43	61	-56.33	76	61,66,71,76
18S 38E 03 313	G. MOONEY	OGLL	-56.94	1-14	-7.54	-29.68	52	-56.94	76	52-76
18S 38E 03 413	R. D. TEAGUE	OGLL	-58.36	2-19	-7.96	-37.56	61	-58.36	76	61,66,71,76
18S 38E 04	PRULTT	OGLL	-47.03	2-25	-	-47.03	76	-47.03	76	76
18S 38E 05 122	PHILLIP SMITH	OGLL	-51.63	2-13	-2.03	-49.60	71	-51.63	76	66,71,76
18S 38E 07 234	N.M. JR. COLLEGE	OGLL	-35.28	2-18	+18.68	-35.28	76	-53.96	71	71,76
18S 38E 08 222	KNOWLES INC.	OGLL	-49.00	2-19	-3.90	-34.63	61	-49.00	76	61,66,71,76
18S 38E 09 121	UNKNOWN	OGLL	-51.73	2-13	-6.74	-44.99	71	-51.73	76	71,76
18S 38E 10 331	FRANK STOCKWELL	OGLL	-61.87	2-19	-10.61	-36.63	61	-61.87	76	61,66,71,76
18S 38E 11 132	STEVE TAYLOR	OGLL	-58.40	2-18	-8.93	-38.20	61	-58.40	76	61,66,71,76
18S 38E 12 121	CHRISTINE WILLIAMS	OGLL	-97.73	2-18	-	-69.48	61	-97.73	76	61,66,76
18S 38E 12 144	C. WILLIAMS	OGLL	-84.87	2-18	-11.14	-73.73	71	-84.87	76	71,76
18S 38E 13 311	CHARLICIA TAYLOR	OGLL	-63.27	2-25	-6.02	-57.25	71	-63.27	76	61,66,71,76
18S 38E 14 111	UNKNOWN	OGLL	-60.00	2-17	-7.30	-36.93	61	-60.00	76	61,66,71,76
18S 38E 15 241B	BEN RANDOLPH	OGLL	-65.08	2-17	-6.93	-58.15	71	-65.08	76	71,76
18S 38E 16 142	KNOWLES INC.	OGLL	-73.79	2-17	-4.65	-44.88	61	-73.79	76	61,66,71,76
18S 38E 16 443	CITY OF HOBBS NO. 26	OGLL	-72.41	2-26	-5.30	-67.11	71	-72.41	76	71,76
18S 38E 17 231	CITY OF HOBBS	OGLL	-44.77	2-17	-	-35.01	61	-44.77	76	61,66,76
18S 38E 18 222	CHARLEY SEED	OGLL	-30.28	2-18	+9.70	-30.28	76	-39.98	71	61,66,71,76
18S 38E 18 344	H. G. HUSTON	OGLL	-28.34	2-18	+2.08	-28.34	76	-30.42	71	61,66,71,76
18S 38E 20 213	TEN INC.	OGLL	-46.42	2-18	-1.92	-40.04	61	-46.42	76	61,66,71,76
18S 38E 21 131	W. M. JACKSON JR.	OGLL	-52.99	2-18	-1.63	-36.56	61	-52.99	76	61,66,71,76
18S 38E 22 211	UNKNOWN	OGLL	-81.53	2-19	-7.22	-74.31	71	-81.53	76	71,76
18S 38E 23 131	CHARLICIA TAYLOR	OGLL	-88.20	2-19	-5.78	-58.79	61	-88.20	76	61,66,71,76
18S 38E 24 433	S. E. CAIN	OGLL	-112.40	2-19	-	-85.96	61	-112.40	76	61,66,76
18S 38E 28 234	BENNET	OGLL	-61.10	2-20	-2.18	-58.92	71	-61.10	76	61,66,71,76
18S 38E 29 421	W. C. GRIMES	OGLL	-52.75	2-20	-	-42.69	61	-52.75	76	61,66,76
18S 38E 31 424	CLARA FOWLER	OGLL	-30.40	2-20	+1.08	-30.40	76	-31.48	71	71,76
18S 38E 35 111	W. K. BYROM	OGLL	-95.09	2-20	-.71	-95.09	76	-101.67	61	61,66,71,76
18S 38E 36 122	HOBBS MUN SCHOOLS	OGLL	-82.06	2-24	+3.22	-69.34	61	-85.28	71	61,66,71,76
18S 39E 05 214	UNKNOWN	OGLL	-87.04	2-19	-4.01	-83.03	71	-87.04	76	71,76
18S 39E 06 142	UNKNOWN	OGLL	-74.47	2-25	-	-74.47	76	-74.47	76	76
18S 39E 07 133	UNKNOWN	OGLL	-105.27	2-24	-14.97	-90.30	71	-105.27	76	71,76
18S 39E 08 433	CHARLICIA TAYLOR	OGLL	-68.62	2-25	-3.92	-64.70	71	-76.05	61	61,66,71,76
18S 39E 17 123	CHARLICIA TAYLOR	OGLL	-63.18	2-25	-4.77	-58.41	71	-63.18	76	61,66,71,76
18S 39E 19 111	CHARLICIA TAYLOR	OGLL	-50.90	2-25	-4.98	-50.90	76	-50.90	76	61,66,71,76

C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
18S 39E 19 433	UNKNOWN	OGLL	-65.57	2-26	-	-65.57	76	-65.57	76	76
18S 39E 20 411	KENNETH TIPTON	OGLL	-73.46	2-24	-4.00	-62.28	61	-73.46	76	61,66,71,76
18S 39E 31 112	W. L. GASAWAY	OGLL	-81.76	2-27	-1.26	-63.02	61	-81.76	76	61,66,71,76
18S 39E 31 222	JESSIE MILLS	OGLL	-86.95	2-24	-4.27	-71.63	61	-86.95	76	61,66,71,76
19S 34E 03 412	STATE	OGGL	-102.12	1-28	+4.30	-102.12	76	-102.12	76	61,66,71,76
19S 34E 09 242	SCARBAUER	ALVM	-62.47	1-20	-33.71	-28.76	71	-62.47	76	61,66,68,71,76
19S 34E 12 244	W. M. SNYDER	OGLL	-74.81	1-29	+1.52	-74.81	76	-74.81	76	61,66,71,76
19S 35E 02 244	MARY JEFF HOOPER	OGLL	-22.68A	2-12	+1.61	-24.29	71	-24.29	71	61,66,71,76
19S 35E 02 313	W. M. SNYDER	OGLL	-15.61	1-29	+.96	-15.61	76	-15.61	76	61,66,71,76
19S 35E 05 121	GENE T. DALMONT	OGLL	-44.64	1-30	+2.47	-44.64	76	-47.11	71	61,66,71,76
19S 35E 06 133	UNKNOWN	OGLL	-60.66	2-12	+1.07	-60.66	76	-62.06	66	61,66,71,76
19S 35E 06 422	GENE DALMONT	OGLL	-49.58	1-30	+.60	-49.58	76	-50.18	71	71,76
19S 35E 06 422	GENE DALMONT	OGLL	-52.68	1-30	-	-52.31	66	-52.68	76	61,66,76
19S 35E 09 133	STELLA ROBERTS	OGLL	-17.80	1-29	+.44	-17.80	76	-18.24	71	61,66,71,76
19S 35E 12 134	W. M. SNYDER	OGLL	-20.30	2-12	+2.19	-20.30	76	-22.49	71	61,66,71,76
19S 35E 12 443	W. M. SNYDER	ALVM	-30.17	2-12	+1.43	-30.17	76	-31.60	71	61,66,71,76
19S 35E 14 134	UNKNOWN	OGLL	-31.00	2-12	+1.77	-31.00	76	-32.77	71	61,66,71,76
19S 35E 15 334	STATE	OGLL	-14.35	1-29	+.12	-14.35	76	-14.66	66	61,66,71,76
19S 35E 16 134	MRS. VIRGIL LINAM	OGLL	-17.448	1-29	+1.55	-18.99	71	-18.99	71	61,66,71,76
19S 35E 17 211	J. D. ROBERTS	ALVM	-21.13	1-29	+5.77	-21.13	76	-26.90	71	61,66,71,76
19S 35E 22 143	C. W. TRAINER	OGLL	-16.27	1-29	+.41	-16.27	76	-16.68	71	63,66,71,76
19S 35E 24 241	UNKNOWN	QTAL	-17.39	2-04	-	-17.39	76	-17.39	76	76
19S 35E 24 422	MRS. B. E. HUGHES	OGLL	-18.49	2-04	-	-17.59	61	-18.60	66	61,66,76
19S 35E 25 334	H. S. RECORD	OGLL	-21.10	2-12	+2.08	-21.10	76	-23.18	71	61,66,71,76
19S 35E 35 211	H. S. RECORD	OGLL	-19.23	1-30	+4.59	-19.23	76	-28.38	61	61,66,71,76
19S 36E 04 222	JIM GIBBS	QTAL	-50.73	2-13	-	-50.73	76	-50.73	76	76
19S 36E 05 411	SNYDER RANCHES INC.	QTAL	-49.34	2-13	-	-49.34	76	-49.34	76	76
19S 36E 06 214	W. M. SNYDER	OGLL	-46.53	1-30	+2.43	-46.53	76	-46.53	76	61,66,71,76
19S 36E 10 232	W. M. SNYDER	OGLL	-54.19	2-11	+3.89	-54.19	76	-54.19	76	61,66,71,76
19S 36E 13 111	EL PASO NAT. GAS CO.	OGLL	-53.88	2-11	-2.85	-51.03	71	-53.88	76	61,66,71,76
19S 36E 13 142	UNKNOWN	OGLL	-64.68	2-11	+4.62	-64.68	76	-69.30	71	66,71,76
19S 36E 19 113	W.M. EVANS	VLFL	-15.63	1-13	+.59	-15.06	47	-17.93	41	39-76
19S 36E 19 114	F. K. TURNER	ALVM	-13.74	2-04	-	-13.74	76	-13.74	76	76
19S 36E 19 324	F.N. TURNER	VLFL	-14.30	2-04	-	-14.30	76	-14.30	76	76
19S 36E 20 112	W. M. SNYDER	ALVM	-24.32	2-04	+1.53	-24.32	76	-24.32	76	61,66,71,76
19S 36E 24 342	WARREN PETROLEUM CO.	OGLL	-65.73	2-11	+.46	-65.00	66	-66.19	71	61,66,71,76
19S 36E 26 224	CHARLES FRISTOE	OGLL	-14.56	2-11	+7.28	-14.56	76	-14.56	76	61,66,71,76
19S 36E 27 423	AMOS PERSONS	OGLL	-19.70	2-11	+1.31	-18.90	66	-19.70	76	66,71,76
19S 36E 28 422	A. K. HALL	OGLL	-46.51	2-11	+5.00	-46.51	76	-51.51	71	61,66,71,76
19S 36E 30 121	B. E. HUGHES	OGLL	-17.37	2-12	+.28	-17.37	76	-18.30	66	61,66,71,76
19S 36E 31 132	F. K. TURNER	OGLL	-18.51	2-04	+5.37	-18.51	76	-18.51	76	61,66,71,76
19S 36E 32 113	F.K. TURNER	ALVM	-15.52	2-04	+.10	-15.15	42	-18.60	40	39-71,76
19S 36E 32 114	F. K. TURNER	ALVM	-20.06	2-04	+.88	-20.06	76	-20.94	71	66,71,76
19S 36E 32 322	T. P. CHILDERS	OGLL	-24.47	2-03	+.13	-24.47	76	-24.60	71	66,71,76
19S 36E 33 333	H. S. RECORD	ALVM	-28.26	2-03	+1.41	-28.26	76	-29.67	71	61,66,71,76
19S 36E 33 444	UNKNOWN	OGLL	-37.56	2-04	-	-37.56	76	-37.56	76	76
19S 36E 34 212	UNKNOWN	VLFL	-18.20	2-11	-	-18.20	76	-18.20	76	76
19S 36E 35 313	TOM MUSICK	OGLL	-45.33	2-11	+2.82	-45.33	76	-48.15	71	61,66,71,76
19S 36E 35 343	UNKNOWN	QTAL	-39.09	2-11	-	-39.09	76	-39.09	76	76
19S 37E 01 222	HOBBS COUNTRY CLUB	OGLL	-49.97	1-28	+.25	-24.07	61	-49.97	76	61,66,71,76
19S 37E 02 224	LEA CO. AIR PORT	OGLL	-19.02	3-19	-	-17.00	61	-17.00	61	61,76
19S 37E 04 113	MRS. VIRGIL LINAM	OGLL	-24.54	2-05	+7.80	-20.46	61	-32.34	71	61,66,71,76
19S 37E 04 231	COX	VLFL	-35.00	2-11	-	-35.00	76	-35.00	76	76
19S 37E 05 321	MRS. VIRGIL LINAM	OGLL	-35.46	2-05	+1.04	-29.98	61	-36.50	71	61,66,71,76
19S 37E 07 223	HARRY HUSTON	OGLL	-44.94	2-04	+.56	-39.00	61	-45.50	71	61,66,68,71,76
19S 37E 08 123	UNKNOWN	OGLL	-56.42	2-10	-	-56.42	76	-56.42	76	76
19S 37E 08 311	UNKNOWN	OGLL	-43.09	2-04	+.49	-41.64	66	-43.09	76	61,66,71,76
19S 37E 08 333	UNKNOWN	OGLL	-67.88	2-04	-	-67.88	76	-67.88	76	76
19S 37E 08 411	R. M. HUSTON JR.	OGLL	-36.80	2-10	+.48	-32.26	61	-37.28	71	61,71,76
19S 37E 10 243	R. M. HUSTON	OGLL	-28.55	1-28	+1.45	-28.55	76	-30.00	71	61,66,71,76
19S 37E 11 133	R. M. HUSTON	OGLL	-20.54	1-28	+1.34	-20.54	76	-20.54	76	61,66,71,76
19S 37E 11 231	R. M. HUSTON	OGLL	-20.43	1-28	-	-20.43	76	-20.43	76	61,76
19S 37E 13 441	WILL TERRY	OGLL	-21.90	2-12	+2.14	-21.90	76	-21.90	76	61,66,71,76
19S 37E 15 111	TIDEWATER OIL CO.	OGLL	-37.80	1-28	+.28	-37.31	66	-39.32	61	61,66,71,76
19S 37E 16 233	HARRY HUSTON	OGLL	-24.70	2-10	+1.98	-24.70	76	-25.70	66	61,66,71,76
19S 37E 17 134	W. M. SNYDER	OGLL	-62.92	2-10	-.30	-60.94	66	-62.92	76	66,68,71,76
19S 37E 17 431	HARRY HUSTON	OGLL	-30.55	2-10	+1.99	-28.83	61	-30.55	76	61,66,71,76
19S 37E 18 111	AMERADA PET. CO.	OGLL	-60.99	2-04	+1.70	-60.99	76	-65.47	66	61,66,71,76
19S 37E 19 111	GULF OIL CO.	OGLL	-57.87	2-04	-.09	-54.96	61	-57.87	76	61,66,71,76
19S 37E 19 321	UNKNOWN	OGLL	-58.98	2-04	-	-58.98	76	-58.98	76	76
19S 37E 21 431	B. F. HINES	OGLL	-16.04	2-10	-	-14.97	61	-16.04	76	61,66,68,76
19S 37E 23 334	WILL TERRY	OGLL	-22.44	2-12	+3.15	-22.44	76	-27.70	66	66,71,76
19S 37E 25 424	MCNEIL	OGLL	-38.44	2-12	-	-38.44	76	-38.44	76	76
19S 37E 28 424	N. A. BYRD	OGLL	-17.13	1-29	+.21	-16.67	61	-17.13	76	61,66,71,76
19S 37E 29 333	UNKNOWN	OGLL	-12.97	2-10	-	-12.97	76	-12.97	76	61,66,76
19S 37E 31 334	CARROL BYRD	ALVM	-24.82	2-04	-	-24.82	76	-24.82	76	76
19S 37E 32 241A	R.A. PIERCE	VLFL	-12.41	2-04	-	-12.41	76	-12.41	76	76
19S 37E 32 314	UNKNOWN	VLFL	-10.77	2-04	-	-10.77	76	-10.77	76	76
19S 37E 32 341	UNKNOWN	VLFL	-17.76	2-04	-	-17.76	76	-17.76	76	76
19S 37E 33 442	UNKNOWN	VLFL	-22.62	1-29	-	-22.62	76	-22.62	76	76

A well being pumped
B well pumped recently

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
19S 37E 33 444	A. A. SAMBERSON	OGLL	-23.57	1-29	+3.59	-23.57	76	-30.37	66	61,66,71,76
19S 37E 34 111	UNKNOWN	OGLL	-20.07A	1-13	-	-22.12	75	-22.33	74	74-76
19S 37E 34 1128	W. O. SHAW	OGLL	-21.31	1-29	+3.35	-21.31	76	-24.66	71	68,71,76
19S 37E 35 214	MCNEILL AND TERRY	OGLL	-21.10	1-29	+4.68	-21.10	76	-21.10	76	61,66,71,76
19S 38E 02 412	MILK INC.	OGLL	-33.29	2-03	-	-33.29	76	-33.56	72	72,76
19S 38E 02 424	J.R. GLENN	OGLL	-32.18	2-03	-	-29.33	61	-46.54	41	41,43-62,76
19S 38E 02 434	MILK INC.	OGLL	-21.10	1-30	-	-21.10	76	-24.83	72	72,76
19S 38E 02 443	MILK INC.	VLFL	-23.98	2-03	-	-23.98	76	-23.98	76	76
19S 38E 04 441	UNKNOWN	OGLL	-30.28	3-18	-	-33.76	72	-33.76	72	72,76
19S 38E 06 223	CLARA FOWLER	OGLL	-36.02	1-28	+1.72	-29.74	61	-36.02	76	61,66,71,76
19S 38E 08 122	W. K. BYROM	OGLL	-16.33	3-18	+2.22	-18.55	71	-18.55	71	61,66,71,76
19S 38E 08 222	UNKNOWN	OGLL	-14.88	1-28	+4.68	-14.88	76	-19.56	71	71,76
19S 38E 09 233	WILL TERRY	OGLL	-17.74	1-28	-	-17.74	76	-21.37	61	61,66,76
19S 38E 10 144	D. C. THORP	OGLL	-33.40	1-28	+5.95	-33.40	76	-39.35	71	61,71,76
19S 38E 11 131	DUNCAN	OGLL	-26.89	1-28	-	-26.89	76	-30.50	72	72,76
19S 38E 11 224	CITY OF HOBBS	OGLL	-45.09	3-18	+.51	-45.60	71	-45.60	71	71,76
19S 38E 11 412	CEMETERY	OGLL	-39.40	1-28	+4.33	-39.40	76	-44.27	61	61,66,71,76
19S 38E 13 111	JAMES A. SELMAN	OGLL	-78.95	1-29	-	-78.95	76	-78.95	76	76
19S 38E 15 444	D. D. EDWARDS	OGLL	-45.40	1-30	+5.69	-45.40	76	-51.09	71	61,66,71,76
19S 38E 17 444	UNKNOWN	OGLL	-35.05C	2-12	-	-35.05C	76	-35.05C	76	76
19S 38E 18 213	C. B. COCHRAN	OGLL	-15.40	2-12	+3.15	-14.02	61	-18.55	71	61,66,71,76
19S 38E 19 424	G. M. GREGORY	OGLL	-26.82	2-12	+1.77	-26.82	76	-28.59	71	61,66,68,71,76
19S 38E 21 213	S. P. YATES DRLG. CO.	OGLL	-37.87	2-12	+2.70	-37.87	76	-40.57	71	71,76
19S 38E 21 322	WILL TERRY	OGLL	-37.65	2-12	+2.23	-37.65	76	-39.90	61	61,66,68,71,76
19S 38E 23 221	J. WRIGHT	OGLL	-58.10	1-29	-	-58.10	76	-59.42	72	72,76
19S 38E 25 113	UNKNOWN	OGLL	-72.93	1-29	-	-72.93	76	-73.39	72	72,76
19S 38E 25 423	GLEN HOLMES	OGLL	-45.90	2-13	+3.63	-45.90	76	-49.53	71	67,71,76
19S 38E 25 441	GLEN HOLMES	OGLL	-51.55	2-13	-1.60	-49.95	71	-51.55	76	67,71,76
19S 38E 26 443	TEXACO INC.	OGLL	-58.41	2-10	+1.28	-58.41	76	-59.69	71	68,71,76
19S 38E 27 111	C. W. JOBE	OGLL	-40.00	1-29	+2.88	-40.00	76	-42.88	71	61,66,68,71,76
19S 38E 27 212	CECIL REID	OGLL	-40.30	1-17	-	-40.30	76	-40.30	76	68,76
19S 38E 27 222	C. W. JOBE	OGLL	-48.38	1-29	+.45	-48.38	76	-48.45	61	61,66,68,71,76
19S 38E 27 422	ALBERT NANCE	OGLL	-52.50	2-13	-	-52.50	76	-52.50	76	67,76
19S 38E 27 424	MELVIN M. PEARCE	OGLL	-51.42	2-10	-	-51.42	76	-51.42	76	76
19S 38E 30 121	UNKNOWN	OGLL	-28.53	1-13	-	-28.53	76	-30.52	74	74-76
19S 38E 30 232	G. M. GREGORY	OGLL	-46.88	2-12	+2.52	-46.88	76	-49.40	71	61,66,68,71,76
19S 38E 34 113	EUGENE WINKER	OGLL	-34.36	2-09	+5.23	-34.36	76	-39.59	71	61,66,71,76
19S 38E 34 222	J.O. COURSEY	OGLL	-49.60	1-13	+3.31	-42.27	49	-55.05	72	49-59,61-76
19S 38E 34 222	LLOYD W. WHITE	OGLL	-58.50	2-10	+2.67	-58.50	76	-61.17	71	67,71,76
19S 38E 35 113	JUAN GUIROZ	OGLL	-68.17	2-09	0.00	-68.17	71	-68.17	71	71,76
19S 38E 35 211	L. AND D. H. EUBANK	OGLL	-68.60	2-05	+6.26	-68.60	76	-74.86	71	71,76
19S 38E 35 241	LEWIS AND D.H. EUBANK	OGLL	-54.22	2-05	+2.90	-54.22	76	-57.12	71	71,76
19S 38E 35 311	UNKNOWN	OGLL	-50.70	2-09	+2.63	-50.70	76	-53.33	71	71,76
19S 38E 35 311	UNKNOWN	OGLL	-50.32	2-09	+2.76	-50.32	76	-53.08	71	71,76
19S 38E 35 324	EMILIO LUCERO	OGLL	-60.45	2-11	+2.37	-60.45	76	-62.82	71	67-68,71,76
19S 38E 35 342	EMILIO LUCERO	OGLL	-50.54	2-11	+1.90	-50.54	76	-52.44	71	67,71,76
19S 38E 35 343	EMILIO LUCERO	OGLL	-49.20	2-11	-5.63	-43.57	71	-49.20	76	71,76
19S 38E 35 444	D. JEFFCOAT	ALVM	-48.50	2-11	-	-48.50	76	-48.50	76	76
19S 38E 36 321	L. AND D.M. EUBANK	OGLL	-51.60	2-05	-3.51	-48.09	71	-51.60	76	67,71,76
19S 38E 36 411	D.W. AND R.L. EUBANK	OGLL	-45.15	2-05	+1.77	-45.15	76	-46.92	71	67-68,71,76
19S 39E 05 134	JACK WRIGHT	OGLL	-77.93	1-27	+7.19	-65.43	61	-77.93	76	61,71,76
19S 39E 06 222	BILL THOMPSON	OGLL	-76.40	1-27	-2.86	-73.54	71	-76.40	76	66,71,76
19S 39E 06 333	MILK INC.	OGLL	-96.64	2-03	-	-96.64	76	-96.64	76	76
19S 39E 18 421	JACK WRIGHT	OGLL	-63.52	1-29	-.60	-63.52	76	-63.52	76	61,66,71,76
19S 39E 19 333	JACK WRIGHT	OGLL	-48.02	1-29	-1.32	-48.02	76	-48.02	76	71,76
19S 39E 20 322	ANNA L. FOSTER	OGLL	-66.24	1-29	-2.01	-60.49	66	-66.24	76	61,66,71,76
19S 39E 29 133	JACK WRIGHT	OGLL	-85.27	1-29	+5.66	-80.54	61	-90.93	71	61,66,68,71,76
19S 39E 30 344	DEWARD D. EDWARDS	OGLL	-54.06	2-03	-.27	-52.80	66	-54.06	76	66,68,71,76
19S 39E 31 223	ANNA L. FOSTER	OGLL	-71.62	2-03	+1.33	-71.62	76	-73.19	61	61,66,68,71,76
19S 39E 31 244	UNKNOWN	OGLL	-70.00	2-03	+.49	-70.00	76	-70.49	71	71,76
20S 32E 24 333	G. M. BINGHAM	OGLL	-35.33	2-24	+2.26	-35.33	76	-35.33	76	68,71,76
20S 32E 24 333A	G. M. BINGHAM	OGLL	-35.68	2-24	+2.15	-35.68	76	-37.83	71	68,71,76
20S 32E 27 323	T. BINGHAM	OGLL	-.94	2-25	-	-.94	76	-.94	76	65,76
20S 32E 27 324	T. BINGHAM	OGLL	-4.69	2-25	+11.86	-4.69	76	-16.55	71	71,76
20S 32E 36 214A	G. M. BINGHAM	OGLL	-41.26	2-25	+4.78	-41.26	76	-41.26	76	68,71,76
20S 33E 05 343	PAN AMERICAN PET. CO.	TRSC	-274.83	2-24	+3.74	-274.83	76	-278.57	71	68,71,76
20S 33E 18 123	UNKNOWN	TRSC	-129.54	1-13	-	-129.54	76	-129.54	76	68,76
20S 33E 20 222	UNKNOWN	TRSC	-131.65	1-13	-94.81	-36.84	71	-131.65	76	68,71,76
20S 33E 24 124	DAN BERRY	TRSC	-173.99	4-15	+239.56	-54.38	76	-54.38	76	68,71,76
20S 34E 04 444	MARK SMITH	TRSC	-129.90	1-28	+42.29	-129.90	76	-129.90	76	68,71,76
20S 34E 14 133	N. T. ROBERTS	TRSC	-155.03	2-20	-3.02	-152.01	71	-155.03	76	68,71,76
20S 34E 17 334	MARK SMITH	TRSC	-132.17	1-28	+11.55	-132.17	76	-132.17	76	68,71,76
20S 34E 34 434	UNKNOWN		-84.94	1-28	-	-84.94	76	-84.94	76	76
20S 35E 01 222	H.S. RECORD	VLFL	-22.90A	1-13	+4.10	-25.76	65	-27.00	71	59-73,75-76
20S 35E 01 434	L. V. AND G. P. SIMS	OGLL	-49.45	2-18	-.46	-48.99	71	-49.45	76	61,66,68,71,76
20S 35E 04 221	MRS. V. KLEIN	OGLL	-32.84	1-30	+.79	-32.84	76	-33.63	71	61,66,71,76
20S 35E 05 314	V. LINAM KLEIN	OGLL	-53.56	2-19	+1.02	-53.56	76	-53.56	76	61,66,71,76
20S 35E 06 331	MRS V. KLEIN	OGLL	-61.24	2-19	-3.66	-57.58	71	-61.24	76	61,71,76
20S 35E 07 444	L. V. AND G. P. SIMS	OGLL	-29.95	2-18	+8.08	-29.95	76	-38.03	71	61,66,68,71,76
20S 35E 12 222	SIMS RANCH		-43.08	2-18	-	-43.08	76	-43.08	76	76

A well being pumped

C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
20S 35E 31 123	SIMS	OGLL	-64.35	2-18	+1.10	-64.35	76	-65.45	71	61,66,68,71,76
20S 35E 33 434	L. V. AND G. P. SIMS	OGLL	-90.12	2-18	+1.46	-90.12	76	-91.58	71	61,66,68,71,76
20S 35E 35 334	L. V. AND G. P. SIMS	OGLL	-80.83	2-18	+2.72	-80.83	76	-83.55	71	61,66,68,71,76
20S 36E 03 331	V. KLEIN	OGLL	-32.18	2-19	+4.32	-32.18	76	-36.50	71	61,66,68,71,76
20S 36E 06 142	UNKNOWN	OGLL	-28.03	2-03	+3.51	-28.03	76	-31.54	71	66,71,76
20S 36E 08 111	B. E. HUGHES	OGLL	-32.57	2-18	+1.97	-32.57	76	-34.54	71	61,66,68,71,76
20S 36E 09 134	V. KLEIN	OGLL	-20.74	2-19	-	-20.74	76	-20.74	76	61,76
20S 36E 10 321	V. KLEIN	OGLL	-29.76	2-13	+2.17	-29.76	76	-29.76	76	61,66,71,76
20S 36E 11 422	V. KLEIN	OGLL	-31.74	2-13	+1.39	-31.74	76	-31.74	76	68,71,76
20S 36E 14 122	V. KLEIN	OGLL	-38.73	2-13	+1.53	-38.73	76	-40.26	71	61,66,68,71,76
20S 36E 15 242	V. KLEIN	OGLL	-32.64	2-13	+3.50	-32.64	76	-32.64	76	61,66,68,71,76
20S 36E 17 111	L. V. AND G. P. SIMS	OGLL	-31.95	2-18	+1.73	-31.95	76	-31.95	76	61,66,68,71,76
20S 36E 22 311	UNKNOWN		-88.37	2-19	-	-88.37	76	-88.37	76	76
20S 36E 26 243	ALASKA COOPER	OGLL	-114.94A	2-18	-35.48	-79.46	71	-79.46	71	61,66,68,71,76
20S 36E 32 113	UNKNOWN	TRSC	-176.93	2-18	+47.33	-176.93	76	-176.93	76	61,66,68,71,76
20S 36E 36 134	ALASKA COOPER	TRSC	-80.69	2-18	-3.90	-76.79	71	-80.69	76	61,66,68,71,76
20S 37E 01 224	BILLY WALKER	OGLL	-46.92	1-29	+.43	-46.92	76	-47.35	71	61,66,71,76
20S 37E 03 141	W. B. WALKER	ALVM	-11.91	1-29	+1.18	-11.91	76	-14.28	61	54,61,66,68,71,76
20S 37E 04 111	UNKNOWN	ALVM	-25.62	1-29	+3.83	-25.62	76	-32.26	66	61,66,68,71,76
20S 37E 04 221	NOLAN AND LANE	ALVM	-24.02	1-29	+3.72	-24.02	76	-27.74	71	54,61,66,68,71,76
20S 37E 05 134	MARATHON OIL CO.	OGLL	-24.48	1-30	+3.91	-24.48	76	-28.39	71	68,71,76
20S 37E 05 222	WM. BLOCKER	OGLL	-26.82	1-30	+6.89	-26.82	76	-31.13	61	61,66,71,76
20S 37E 06 113	CAROL BYRD	OGLL	-23.20	2-04	+5.85	-23.20	76	-29.05	71	61,71,76
20S 37E 06 334	G. MATHEWS	OGLL	-24.01	2-04	+3.36	-24.01	76	-27.37	71	61,66,68,71,76
20S 37E 07 243	BERTHA BAKER	ALVM	-22.67	2-04	+2.55	-22.67	76	-22.67	76	61,66,71,76
20S 37E 08 423	COOPER	ALVM	-19.92A	1-30	+3.28	-23.20	71	-23.20	71	54,71,76
20S 37E 09 112	W.H. LAUGHLIN	ALVM	-24.41	1-30	+3.37	-24.41	76	-37.12	41	41,44-50,66,71,76
20S 37E 09 331	PAUL BUCHANAN	OGLL	-11.74	1-23	+4.12	-11.74	76	-16.03	61	61,66,71,76
20S 37E 13 321	W. B. WALKER	ALVM	-78.80	2-04	-1.68	-75.17	61	-78.80	76	54,61,68,71,76
20S 37E 16 314	ORVILLE COOPER	ALVM	-15.09	1-23	+3.00	-13.16	53	-15.09	76	53,68,71,76
20S 37E 17 132	MRS. B. SCARRY	OGLL	-25.56	1-23	+2.29	-25.56	76	-27.85	71	54,61,66,68,71,76
20S 37E 18 212	UNKNOWN	OGLL	-26.80	1-27	+1.73	-26.80	76	-28.53	71	71,76
20S 37E 20 431	DELLA THURLAND	ALVM	-21.50	2-04	+1.83	-21.50	76	-23.33	71	54,61,66,68,71,76
20S 37E 21 333	DELLA THURLAND	OGLL	-20.33	1-27	+3.21	-20.33	76	-23.54	71	61,71,76
20S 37E 21 441	W. B. WALKER	ALVM	-39.68	2-04	+1.04	-39.68	76	-40.72	71	68,71,76
20S 37E 28 244	DELLA THURLAND	ALVM	-35.94	2-04	+2.83	-35.94	76	-36.61	61	54,61,66,71,76
20S 37E 29 344	DELLA THURLAND	ALVM	-80.84	1-23	-44.92	-35.92	71	-80.84	76	66,68,71,76
20S 37E 30 441	DELLA THURLAND	OGLL	-60.03	1-23	-21.57	-38.46	71	-60.03	76	61,66,68,71,76
20S 37E 35 411	DELLA THURLAND	ALVM	-70.65	2-04	+.58	-70.65	76	-72.03	61	61,70-71,76
20S 37E 35 414	THURLAND RANCH	ALVM	-53.21	2-04	+.59	-53.21	76	-53.80	71	54,68,71,76
20S 37E 35 423	DELLA THURLAND	ALVM	-52.10	2-04	+1.10	-52.10	76	-52.10	76	61,66,71,76
20S 37E 35 432	DELLA THURLAND	ALVM	-54.08	2-04	-	-54.08	76	-54.08	76	70,76
20S 38E 02 141	EARL KORNEGAY	ALUM	-40.78	2-10	+2.08	-40.78	76	-42.86	71	71,76
20S 38E 02 212	D. JEFFCOAT	ALVM	-48.39	2-10	+2.54	-48.39	76	-50.93	71	67,71,76
20S 38E 02 423	MARTIN HUGHES	ALVM	-35.67	2-10	+2.54	-33.15	61	-35.67	76	61,66,68,71,76
20S 38E 03 222	MYRTLE PAYTON	OGLL	-38.60	1-22	+2.98	-38.60	76	-38.60	76	71,76
20S 38E 05 214	MCNEILL RANCH	OGLL	-47.05	1-28	-	-47.05	76	-48.39	66	61,66,68,72,76
20S 38E 05 313	F. M. PAYTON	OGLL	-54.33	1-28	+1.13	-53.26	61	-54.33	76	61,66,68,71,76
20S 38E 06 442	W. M. WALKER	OGLL	-52.36	1-28	-	-43.47	61	-52.36	76	61,76
20S 38E 06 442	BILLY WALKER	OGLL	-52.31	1-28	-	-52.31	76	-52.31	76	76
20S 38E 06 444	BILLY WALKER	OGLL	-59.64	1-22	-	-59.64	76	-59.64	76	76
20S 38E 06 444	UNKNOWN	OGLL	-59.27	1-22	+10.37	-59.27	76	-77.03	61	61,66,71,76
20S 38E 07 222	WM. WALKER	OGLL	-61.48	1-22	+9.67	-61.48	76	-71.15	71	67,71,76
20S 38E 07 224	WM. WALKER	OGLL	-60.71	1-22	+9.40	-60.71	76	-70.11	71	67,71,76
20S 38E 07 324	UNKNOWN	OGLL	-74.76	1-29	+1.19	-74.76	76	-75.95	71	66,68,71,76
20S 38E 07 334	TEXACO OIL CO.	OGLL	-90.50	1-29	-3.19	-87.31	71	-90.50	76	71,76
20S 38E 08 232	CITY OF EUNICE	OGLL	-58.83	1-28	-4.50	-54.33	71	-73.80	61	61,66,68,71,76
20S 38E 11 414	B. W. HOUSE	OGLL	-38.33	2-11	+.18	-35.60	61	-38.33	76	61,66,68,71,76
20S 38E 12 442	LOWE DRILLING CO.	ALVM	-49.66	2-05	+2.49	-49.66	76	-52.15	71	71,76
20S 38E 13 141	D. E. HOUSE	ALVM	-35.95	2-05	+7.83	-31.08	61	-35.95	76	61,66,68,71,76
20S 38E 16 141	EARL KORNEGAY	OGLL	-60.60	1-28	+.95	-60.60	76	-60.60	76	61,66,68,71,76
20S 38E 16 232	EARL KORNEGAY	OGLL	-71.27	1-28	+5.93	-65.35	61	-71.27	76	61,66,71,76
20S 38E 17 141	EARL KORNEGAY	ALVM	-74.08	1-28	-	-74.08	76	-74.08	76	68,76
20S 38E 17 334	EARL KORNEGAY	OGLL	-79.32	1-28	-1.22	-71.36	61	-79.32	76	54,61,66,71,76
20S 38E 19 312	CONOCO	ALVM	-82.73	1-29	-1.18	-79.61	61	-82.73	76	54,61,66,68,71,76
20S 38E 34 233	E. C. HILL	ALVM	-79.00	1-29	-.03	-78.57	61	-79.00	76	61,66,71,76
20S 39E 06 131	SHERMAN HINNARD	OGLL	-74.39	2-10	+3.35	-70.62	61	-74.39	76	61,66,71,76
20S 39E 06 133	PAN AMERICAN	OGLL	-69.29	2-10	+.66	-69.29	76	-69.95	71	66,68,71,76
20S 39E 08 132	SHERMAN HINNARD	OGLL	-48.91	2-10	+1.44	-44.20	61	-48.91	76	61,66,68,71,76
20S 39E 19 122	EARL KORNEGAY	OGLL	-53.52A	1-13	-5.86	-46.76	66	-59.75	69	64-72,74-76
20S 39E 19 421	EARL KORNEGAY	OGLL	-54.38	2-10	+.57	-54.38	76	-57.74	61	61,66,71,76
20S 39E 20 123	EARL KORNEGAY	OGLL	-30.58A	2-10	+5.91	-36.49A	71	-36.49A	71	71,76
20S 39E 20 123	EARL KORNEGAY	OGLL	-26.23	2-10	+3.82	-26.23	76	-26.23	76	68,71,76
21S 32E 06 111	I. O. ALLRED	OGLL	-43.66	2-25	+.38	-43.66	76	-43.66	76	68,71,76
21S 32E 06 1118	I. O. ALLRED	OGLL	-43.18	2-25	+.32	-43.18	76	-43.18	76	71,76
21S 36E 14 313	CONTINENTAL OIL CO.	OGLL	-165.54	1-23	-	-165.54	76	-165.54	76	68,76
21S 36E 18 242	CONTINENTAL OIL CO.	OGLL	-231.84	1-22	-	-231.84	76	-231.84	76	68,76
21S 36E 23 233	CITY OF EUNICE	OGLL	-45.17	1-23	-	-45.17	76	-45.17	76	76
21S 36E 26 424	HUMBLE OIL CO.	OGLL	-150.85	1-22	-	-150.75	66	-150.85	76	66,68,76
21S 36E 28 421	ROBINSON	OGLL	-186.72	1-22	-	-186.72	76	-186.72	76	68,76

A well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
21S 36E 29 231	UNKNOWN	OGLL	-247.85	1-22	-	-247.85	76	-247.85	76	76
21S 37E 03 312	TEXACO	OGLL	-17.80	1-22	-	-17.80	76	-17.80	76	68,76
21S 37E 03 433	CONTINENTAL CARBON	OGLL	-15.19	1-22	-	-15.19	76	-15.19	76	68,76
21S 37E 04 133	UNKNOWN	OGLL	-22.70	1-21	-	-22.70	76	-22.70	76	61,66,68,76
21S 37E 04 412	UNKNOWN	OGLL	-23.17	1-21	-	-23.17	76	-23.17	76	61,66,68,76
21S 37E 07 112	UNKNOWN	OGLL	-81.30	1-22	-	-81.30	76	-81.30	76	68,76
21S 37E 09 241	DR. SAM W. GRAVES	OGLL	-61.69	1-22	-	-61.69	76	-61.69	76	76
21S 37E 10 241	UNKNOWN	OGLL	-16.80	1-23	-	-16.80	76	-16.80	76	76
21S 37E 11 311	HUMBLE OIL CO.	OGLL	-21.07	1-23	-	-21.07	76	-28.28	66	66,68,76
21S 37E 14 344	UNKNOWN	OGLL	-48.56	1-23	-	-48.56	76	-48.56	76	68,76
21S 37E 15 334	UNKNOWN	OGLL	-48.24	1-23	-	-48.24	76	-48.24	76	68,76
21S 37E 17 144	DR. SAM W. GRAVES	OGLL	-71.79	1-22	-	-71.79	76	-71.79	76	68,76
21S 37E 20 244	DR. SAM W. GRAVES	OGLL	-99.66	1-22	-	-99.66	76	-99.66	76	68,76
21S 37E 21 244	R. L. HARDY	OGLL	-57.20	1-22	-	-57.20	76	-57.20	76	68,76
21S 37E 22 211	O. R. EUBANKS	OGLL	-38.83	1-27	-	-38.83	76	-38.83	76	76
21S 37E 22 211	O. R. EUBANKS	OGLL	-38.20	1-27	-	-38.20	76	-38.20	76	68,76
21S 37E 22 333	DR. SAM W. GRAVES	OGLL	-47.91	1-27	-	-47.91	76	-47.91	76	68,76
21S 37E 22 414	SKELLY OIL CO.	OGLL	-68.83	1-27	-	-68.83	76	-68.83	76	66,76
21S 37E 22 432	SKELLY OIL CO.	OGLL	-66.73	1-27	-	-66.73	76	-66.73	76	66,76
21S 37E 22 442	DR. S. W. GRAVES	OGLL	-64.84	1-27	-	-64.84	76	-64.84	76	68,76
21S 37E 23 141	SKELLY WELL NO. 20	OGLL	-62.10	1-27	-	-62.10	76	-62.10	76	76
21S 37E 23 233	SKELLY OIL CO.	OGLL	-50.26	1-27	-	-50.26	76	-50.26	76	66,76
21S 37E 23 334	GULF WARREN	OGLL	-60.39	1-27	-	-60.39	76	-60.39	76	76
21S 37E 25 313	M. W. OWEN	OGLL	-50.94	1-23	-	-50.94	76	-50.94	76	68,76
21S 37E 27 111	T. P. FAULKNER	OGLL	-46.18	1-21	-	-46.18	76	-46.18	76	66,76
21S 37E 27 131	M. A. BRAMLETT	OGLL	-46.93	1-20	-	-46.93	76	-46.93	76	66,76
21S 37E 27 232	SKELLY OIL CO.	OGLL	-60.29	1-20	-	-60.29	76	-60.29	76	66,76
21S 37E 27 232	SKELLY OIL CO.	OGLL	-61.49	1-20	-	-61.49	76	-61.49	76	66,76
21S 37E 27 241	GULF WARREN	OGLL	-60.87	1-20	-	-60.87	76	-60.87	76	66,68,76
21S 37E 27 243	SKELLY OIL CO.	OGLL	-60.63	1-20	-	-60.63	76	-60.63	76	65-66,76
21S 37E 27 311	R. L. MCLEAN	OGLL	-42.51	1-21	-	-42.51	76	-42.51	76	76
21S 37E 28 243	SKELLY OIL CO.	OGLL	-50.98	1-21	-	-50.98	76	-50.98	76	65-66,76
21S 37E 28 343	UNKNOWN	OGLL	-89.75	1-21	-	-89.75	76	-89.75	76	66,76
21S 37E 28 424	EUNICE RENTAL TOOL CO	OGLL	-45.14	1-21	-	-45.14	76	-45.14	76	76
21S 37E 28 442	EUNICE RENTAL TOOL CO	OGLL	-45.13	1-21	-	-45.13	76	-45.13	76	68,76
21S 37E 29 241	A. P. MITCHELL	OGLL	-88.66	1-21	-	-88.66	76	-88.66	76	68,76
21S 37E 29 424	A. P. MITCHELL	OGLL	-93.82	1-21	-	-93.82	76	-93.82	76	76
21S 37E 29 442	A. P. MITCHELL	TRSC	-98.76	1-21	-	-98.76	76	-98.76	76	68,76
21S 37E 29 442A	A. P. MITCHELL	TRSC	-93.93	1-21	-	-93.93	76	-93.93	76	76
21S 37E 30 114	A. P. MITCHELL	OGLL	-111.77	1-22	-	-111.77	76	-111.77	76	76
21S 37E 30 414	UNKNOWN	OGLL	-100.63	1-21	-	-100.63	76	-100.63	76	66,68,76
21S 37E 31 133	SNYDER	OGLL	-104.95	1-21	-	-104.95	76	-104.95	76	68,76
21S 37E 32 222	PAT SIMS	OGLL	-98.08	1-22	-	-98.08	76	-98.08	76	68,76
21S 37E 32 222	PAT SIMS	OGLL	-98.31	1-22	-	-98.31	76	-98.31	76	76
21S 37E 32 222	PAT SIMS	OGLL	-97.89	1-22	-	-97.89	76	-97.89	76	76
21S 37E 32 422	PAT SIMS	OGLL	-99.29	1-22	-	-99.29	76	-99.29	76	68,76
21S 37E 35 224	WM. O. STEPHENS	OGLL	-55.77	1-22	-	-55.77	76	-55.77	76	76
21S 37E 35 231	CONTINENTAL OIL CO.	OGLL	-55.11	1-22	-	-55.11	76	-55.11	76	76
21S 37E 35 244	EVA OWEN ESTATE	OGLL	-58.29	1-23	-	-58.29	76	-58.29	76	76
21S 37E 35 321	J. M. OWEN	TRSC	-38.58	1-22	-	-38.58	76	-38.58	76	76
21S 37E 35 412	J. M. OWEN	OGLL	-57.05	1-23	-	-57.05	76	-57.05	76	68,76
21S 37E 35 422	PETE STEPHENS	OGLL	-58.97	1-23	-	-58.97	76	-58.97	76	76
21S 37E 35 422	GAIL BOWMAN	OGLL	-58.76	1-23	-	-58.76	76	-58.76	76	76
21S 37E 35 442	KENNETH SNYDER	OGLL	-59.10	1-23	-	-59.10	76	-59.10	76	76
21S 37E 36 133	LEA COUNTY CONCRETE C	OGLL	-58.88	1-23	-	-58.88	76	-58.88	76	76
21S 37E 36 233	UNKNOWN	OGLL	-50.07	1-27	-	-50.07	76	-50.07	76	66,68,76
21S 37E 36 331	W. J. MCCASLAND	OGLL	-62.21	1-27	-	-62.21	76	-62.21	76	76
21S 38E 06 131	UNKNOWN	OGLL	-76.10	1-20	-	-76.10	76	-76.10	76	76
21S 38E 19 242	WAYNE STEPHENS	OGLL	-37.97	1-20	-	-37.97	76	-37.97	76	68,76
21S 38E 20 434	PAUL WALLACH	OGLL	-28.67	1-20	-	-28.67	76	-28.67	76	68,76
21S 38E 28 131	UNKNOWN	OGLL	-34.61	1-20	-	-34.61	76	-34.61	76	68,76
21S 38E 33 111	UNKNOWN	OGLL	-33.35	1-20	-	-33.35	76	-33.35	76	76
21S 38E 33 111A	UNKNOWN	OGLL	-34.37	1-20	-	-34.37	76	-34.37	76	76
22S 36E 02 442	UNKNOWN	OGLL	-118.48	1-20	-	-118.48	76	-118.48	76	76
22S 36E 06 321	W.T. TIVIS JR.	OGLL	-180.40	1-21	-	-180.40	76	-180.40	76	76
22S 36E 06 412	CHILDRENS BAPTIST HOM	OGLL	-171.25	1-21	-	-171.25	76	-171.25	76	68,76
22S 36E 09 3418	TEXAS + PACIFIC COAL+	OGLL	-171.53	1-21	-	-171.53	76	-171.53	76	76
22S 36E 12 311	UNKNOWN	QTAL	-119.17	1-20	-	-119.17	76	-119.17	76	76
22S 36E 13 222	MARATHON OIL CO.	TRCL	-23.41	1-20	-	-23.41	76	-23.41	76	68,76
22S 36E 16 211	MARATHON OIL CO.	OGLL	-174.00	1-22	-	-174.00	76	-174.00	76	68,76
22S 36E 16 211B	UNKNOWN	OGLL	-173.26	1-21	-	-173.26	76	-173.26	76	76
22S 36E 25 434	E. F. KING	OGLL	-117.04	1-21	-	-117.04	76	-117.04	76	76
22S 36E 27 222	E. F. KING	OGLL	-166.68	1-21	-	-166.68	76	-166.68	76	68,76
22S 36E 27 444	E. F. KING	OGLL	-164.24	1-21	-	-164.24	76	-164.24	76	76
22S 36E 33 232	PHILLIPS PET. CO.	TRSC	-378.31	1-21	-	-378.31	76	-378.31	76	68,76
22S 36E 35 313	E. F. KING	OGLL	-180.97	1-21	-	-180.97	76	-180.97	76	68,76
22S 37E 01 443	GEORGE SIMS	QTAL	-52.21C	1-22	-	-82.68	71	-82.68	71	68,76
22S 37E 01 444	GEORGE SIMS	QTAL	-54.58	1-22	-	-54.58	76	-54.58	76	76
22S 37E 02 242	HUMBLE OIL CO.	QTAL	-61.39	1-22	-	-61.39	76	-61.39	76	76
22S 37E 03 432	CITIES SERVICE OIL CO	OGLL	-32.58	1-27	-	-32.58	76	-32.58	76	66,68,76

C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
22S 37E 04 223	CITY OF EUNICE CEMETE	OGLL	-103.24	1-22	-	-103.24	76	-103.24	76	68,76
22S 37E 04 443	L. W. FRISTOE	OGLL	-82.75	1-22	-	-82.75	76	-82.75	76	76
22S 37E 04 443	P. B. MOODY	OGLL	-85.72	1-22	-	-85.72	76	-85.72	76	76
22S 37E 04 443	L. W. FRISTOE	OGLL	-83.59	1-22	-	-83.59	76	-83.59	76	76
22S 37E 05 212	ETHEL SIMS	QTAL	-99.39	1-23	-	-99.39	76	-99.39	76	76
22S 37E 05 244	BOB HUDDLESTON	OGLL	-85.53	1-23	-	-85.53	76	-85.53	76	76
22S 37E 05 432	MARATHON	OGLL	-79.45	1-23	-	-79.45	76	-79.45	76	76
22S 37E 08 424	SHELL OIL CO.	OGLL	-71.85	1-22	-	-71.85	76	-71.85	76	66,76
22S 37E 09 212	L. W. FRISTOE	OGLL	-76.48	1-22	-	-76.48	76	-76.48	76	76
22S 37E 09 223	L. W. FRISTOR	OGLL	-78.57	1-22	-	-78.57	76	-78.57	76	76
22S 37E 09 333	HUMBLE OIL CO.	QTAL	-73.98	1-22	-	-73.98	76	-73.98	76	76
22S 37E 10 132	L. W. FRISTOE	OGLL	-65.59	1-27	-	-65.59	76	-65.59	76	76
22S 37E 10 214	L. W. FRISTOE	OGLL	-41.88	1-27	-	-41.88	76	-41.88	76	68,76
22S 37E 10 232	L. W. FRISTOE	OGLL	-54.44	1-27	-	-54.44	76	-54.44	76	76
22S 37E 10 321	L. W. FRISTOE	OGLL	-69.54	1-27	-	-69.54	76	-69.54	76	68,76
22S 37E 10 341	UNKNOWN	OGLL	-78.64	1-27	-	-78.64	76	-78.64	76	76
22S 37E 11 224	MARATHON OIL CO.	OGLL	-56.61	1-28	-	-56.61	76	-56.61	76	68,76
22S 37E 11 231	MILLARD DECK	QTAL	-18.36	1-28	-	-18.36	76	-18.36	76	66,68,76
22S 37E 11 322	A. P. MITCHELL	QTAL	-28.65	1-28	-	-28.65	76	-28.65	76	76
22S 37E 11 444	RAY A. PEIRCE	QTAL	-57.96	1-28	-	-57.96	76	-57.96	76	76
22S 37E 13 134	GEORGE SIMS	QTAL	-56.67	1-28	-	-56.67	76	-56.67	76	76
22S 37E 14 442	OLLIE I. BOYD	QTAL	-54.91	1-28	-	-54.91	76	-54.91	76	68,76
22S 37E 15 333	WILLARD P. SIMS	OGLL	-85.50	1-28	-	-85.50	76	-85.50	76	66,76
22S 37E 16 413	MILLARD DECK	OGLL	-84.48C	1-28	-	-18.36	76	-18.36	76	68,76
22S 37E 17 414	E. F. KING	OGLL	-71.68	1-28	-	-71.68	76	-71.68	76	68,76
22S 37E 17 434	E. F. KING	OGLL	-65.67	1-28	-	-65.67	76	-65.67	76	76
22S 37E 21 224	MILLARD DECK	OGLL	-80.55	1-29	-	-80.55	76	-80.55	76	76
22S 37E 22 311	R. E. BEARDEN	OGLL	-74.03C	1-29	-	-71.68	76	-71.68	76	76
22S 37E 22 313	UNKNOWN	OGLL	-72.54	1-29	-	-72.54	76	-72.54	76	76
22S 37E 23 242	LEO SIMS	ALVM	-54.64	1-16	-	-54.64	76	-54.64	76	76
22S 37E 23 423	OLLIE T. BOYD	QTAL	-55.55	1-15	-	-55.55	76	-55.55	76	76
22S 37E 23 423	OLLIE T. BOYD	QTAL	-54.24	1-16	-	-54.24	76	-54.24	76	68,76
22S 37E 23 423A	OLLIE T. BOYD	QTAL	-56.23	1-15	-	-56.23	76	-56.23	76	76
22S 37E 23 423	OLLIE T. BOYD	QTAL	-53.95	1-15	-	-53.95	76	-53.95	76	76
22S 37E 24 322	GEORGE SIMS	QTAL	-53.60	1-15	-	-53.60	76	-53.60	76	68,76
22S 37E 24 343	GEO. SIMS	QTAL	-57.85	1-15	-	-57.85	76	-57.85	76	68,76
22S 37E 25 122	A. M. DRINKARD	QTAL	-48.73	1-15	+1.72	-48.73	76	-50.45	71	68,71,76
22S 37E 25 124	A. M. DRINKARD	ALVM	-51.30	1-15	-	-51.30	76	-51.30	76	76
22S 37E 25 124	A. M. DRINKARD	ALVM	-53.10	1-15	-	-53.10	76	-53.10	76	76
22S 37E 25 141	AMANDA SIMS	QTAL	-46.03	1-15	+1.24	-46.03	76	-47.27	71	71,76
22S 37E 25 331	AMANDA SIMS	QTAL	-48.44	1-15	-	-48.44	76	-48.44	76	68,76
22S 37E 27 133	SKELLY OIL CO.	QTAL	-54.88	1-20	-	-54.88	76	-54.88	76	76
22S 37E 27 213	JOHNSON	QTAL	-52.76	1-21	-	-52.76	76	-52.76	76	68,76
22S 37E 27 213	MASON WHITE	ALVM	-49.11	1-21	-	-49.11	76	-49.11	76	76
22S 37E 27 314	SKELLY OIL CO.	OGLL	-59.60	1-20	-	-59.60	76	-59.60	76	76
22S 37E 27 342	ANADARKO	ALVM	-47.20	1-16	-	-47.20	76	-47.20	76	76
22S 37E 27 343	ANADARKO	ALVM	-51.84	1-16	-	-51.84	76	-51.84	76	76
22S 37E 27 431	ANADARKO PROD. CO.	QTAL	-46.59	1-21	-	-46.59	76	-46.59	76	68,76
22S 37E 27 431	ANADARKO	QTAL	-46.32	1-21	-	-46.32	76	-46.32	76	76
22S 37E 27 433	ANADARKO	ALVM	-48.94	1-21	-	-48.94	76	-48.94	76	76
22S 37E 27 433A	ANADARKO	QTAL	-50.08	1-21	-	-50.08	76	-50.08	76	76
22S 37E 28 323	E. F. KING	QTAL	-69.20	1-20	-	-69.20	76	-69.20	76	68,76
22S 37E 34 121	R. D. SIMS	QTAL	-53.68	1-16	-	-53.68	76	-53.68	76	68,76
22S 37E 34 411	R. D. SIMS	OGLL	-51.87	1-16	-	-51.87	76	-51.87	76	68,76
22S 37E 35 142	R. D. SIMS	QTAL	-58.72	1-16	-	-58.72	76	-58.72	76	68,76
22S 37E 36 134	TOMMY LINEBERRY	QTAL	-29.10	1-15	-	-29.10	76	-29.10	76	76
22S 37E 36 134	TOMMY LINEBERRY	QTAL	-27.29	1-15	-	-27.29	76	-27.29	76	66,68,76
22S 38E 19 222	UNKNOWN	TRCL	-132.88	1-15	-	-132.88	76	-132.88	76	68,76
22S 38E 19 224	GEORGE SIMS	TRSC	-141.53	1-15	-	-141.53	76	-141.53	76	68,76
22S 38E 19 343	ERNEST HANSEN	TRSC	-97.90	1-15	-	-97.90	76	-97.90	76	68,76
22S 38E 20 134	AMANDA E. SIMS	TRCL	-152.23	1-15	-	-152.23	76	-152.23	76	76
23S 34E 32 424	SHELL OIL CO.	TRSC	-212.39	1-21	+12.98	-212.39	76	-225.37	71	71,76
23S 35E 06 331	LAWRENCE MERCHANT	OGLL	-138.70	1-28	+1.17	-138.70	76	-139.87	71	71,76
23S 35E 12 241	HUGH WARD	TRSC	-125.48	1-23	-	-125.48	76	-125.48	76	76
23S 35E 15 423	HUGH WARD	OGLL	-43.89	1-23	-	-43.89	76	-43.89	76	76
23S 35E 28 111	L. B. M. CATTLE CO.	OGLL	-231.57	1-23	-	-231.57	76	-231.57	76	76
23S 35E 28 123	L. B. M. CATTLE CO.	OGLL	-230.43	1-23	-	-230.43	76	-230.43	76	76
23S 36E 04 424	J. E. MATKINS	TRSC	-163.10	1-21	+.14	-163.10	76	-163.24	71	68,71,76
23S 36E 26 333	MRS. FRANCES RANDOLPH	OGLL	-140.96	1-21	-	-140.96	76	-140.96	76	68,76
23S 36E 31 214A	MRS. FRANCES RANDOLPH	OGLL	-174.93	1-21	-.27	-174.66	71	-174.93	76	68,71,76
23S 36E 31 214B	FRANCES RANDOLPH	OGLL	-173.83	1-21	-.20	-173.63	71	-173.83	76	71,76
23S 36E 35 211	FRANCES RANDOLPH	OGLL	-123.74	1-21	-.44	-123.30	71	-123.74	76	71,76
23S 36E 36 131	AMERADA PET. CO.	OGLL	-122.58	1-20	-	-122.58	76	-122.58	76	76
23S 36E 36 214	EL PASO NAT. GAS CO.	OGLL	-129.80	1-20	-	-129.80	76	-129.80	76	76
23S 37E 02 133	R. D. SIMS	OGLL	-69.45	1-16	-	-69.45	76	-69.45	76	76
23S 37E 02 422	GEORGE SIMS	OGLL	-63.67	1-16	-	-63.67	76	-63.67	76	76
23S 37E 02 422A	GEORGE SIMS	OGLL	-63.70	1-16	-	-63.70	76	-63.70	76	68,76
23S 37E 03 124	UNKNOWN	OGLL	-78.04	1-16	-	-78.04	76	-78.04	76	76
23S 37E 03 341	R. R. SIMS	OGLL	-69.89	1-16	-	-69.89	76	-69.89	76	68,76
23S 37E 03 421	R. R. AND G. W. SIMS	OGLL	-67.05	1-16	-	-67.05	76	-67.05	76	68,76

C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
23S 37E 04 114A	E. F. KING	OGLL	-82.47	1-15	-.30	-82.17	71	-82.47	76	68,71,76
23S 37E 04 211	SKELLY OIL CO.	OGLL	-79.15	1-21	-	-79.15	76	-79.15	76	66,76
23S 37E 05 442	JAMES WEIR	OGLL	-85.05	1-15	-	-85.05	76	-85.05	76	68,76
23S 37E 06 144	E. F. KING	OGLL	-102.02	1-15	+.36	-102.02	76	-102.38	71	68,71,76
23S 37E 06 422	UNKNOWN	OGLL	-90.22	1-15	-.67	-89.55	71	-90.22	76	68,71,76
23S 37E 10 421	TOMMY LINEBERRY	OGLL	-65.97	1-16	-.17	-65.97	76	-65.97	76	68,71,76
23S 37E 10 422	TOMMY LINEBERRY	OGLL	-68.05	1-16	-.07	-68.05	76	-68.05	76	71,76
23S 37E 11 111	G. W. AND R. R. SIMS	OGLL	-68.59	1-16	-.02	-68.57	71	-68.59	76	68,71,76
23S 37E 21 443	UNKNOWN	OGLL	-93.35	1-15	-	-93.35	76	-93.35	76	68,76
23S 37E 23 424	UNKNOWN	OGLL	-29.55	1-15	-	-29.55	76	-29.55	76	68,76
23S 37E 27 432	UNKNOWN	ALVM	-77.75	1-15	-	-77.75	76	-77.75	76	76
23S 37E 27 443	CARTER FOUNDATION	OGLL	-80.83	1-15	-	-80.83	76	-80.83	76	76
23S 37E 28 133	GULF OIL CO.	OGLL	-117.91	1-14	-	-117.91	76	-117.91	76	68,76
23S 37E 28 221	UNKNOWN	ALVM	-13.78	1-15	-	-13.78	76	-13.78	76	76
23S 37E 31 442	EL PASO NAT. GAS CO.	OGLL	-101.50	1-20	-	-101.50	76	-102.70	68	68,76
23S 37E 32 343	EL PASO NAT. GAS CO.	OGLL	-90.87	1-20	-	-90.87	76	-90.87	76	76
23S 37E 33 323	EDITH FANNING	OGLL	-87.45	1-14	-	-87.45	76	-89.36	68	68,76
23S 37E 36 433	UNKNOWN	OGLL	-20.43	1-21	-	-20.43	76	-21.32	68	68,76
23S 38E 05 233	HUMBLE OIL CO.	TRSC	-188.45	1-21	-	-188.45	76	-188.45	76	66,68,76
23S 38E 07 344	TOM LINEBERRY	OGLL	-180.80	1-21	-2.59	-178.21	71	-180.80	76	71,76
24S 32E 10 344	FRANK JAMES	OGLL	-31.80	1-22	-	-31.80	76	-31.80	76	50,76
24S 33E 10 131	CARL JOHNSON	OGLL	-20.39	1-21	-	-20.39	76	-20.39	76	76
24S 33E 24 444	MADERA	OGLL	-13.57	1-21	-	-13.57	76	-13.57	76	76
24S 33E 33 232	CARL JOHNSON	OGLL	-92.05	1-22	-	-92.05	76	-92.05	76	54,76
24S 34E 04 214	SHELL OIL CO.	OGLL	-346.69	1-21	-	-346.69	76	-346.69	76	76
24S 34E 07 222	PITCHFORK CATTLE CO.	OGLL	-85.84	1-16	-	-85.84	76	-85.84	76	76
24S 34E 35 124	RUBERT MADERA	OGLL	-219.06	1-15	-1.02	-218.04	71	-219.06	76	53,71,76
24S 35E 10 110	J. POST	OGLL	-271.70	1-15	-	-271.70	76	-271.70	76	76
24S 35E 10 133	J. POST	OGLL	-156.35	1-15	-	-156.35	76	-156.35	76	76
24S 35E 15 230	J. POST	OGLL	-9.83	1-16	-	-9.83	76	-9.83	76	76
24S 35E 24 424	J. POST	OGLL	-127.22	1-15	-	-127.22	76	-127.22	76	76
24S 35E 30 342A	RUBERT MADERA	OGLL	-139.18	1-15	-	-139.18	76	-139.18	76	76
24S 35E 34 143	MRS. BRYANT	OGLL	-146.48	1-09	-	-146.48	76	-146.48	76	76
24S 36E 03 114	W. P. WHITTEN	OGLL	-178.16	1-15	-	-178.16	76	-178.16	76	53,76
24S 36E 03 123	W. P. WHITTEN	OGLL	-181.69	1-15	-	-181.69	76	-181.69	76	68,76
24S 36E 03 313	W. P. WHITTEN	OGLL	-189.25	1-15	-	-189.25	76	-189.25	76	68,76
24S 36E 03 333	W. P. WHITTEN	OGLL	-176.58	1-15	-	-176.58	76	-176.58	76	53,68,76
24S 36E 03 333A	W. P. WHITTEN	OGLL	-177.45	1-15	-	-177.45	76	-177.45	76	76
24S 36E 09 133A	W. P. WHITTEN	OGLL	-189.84	1-16	-	-189.84	76	-189.84	76	68,76
24S 36E 13 443	MRS. FRANCES RANDOLPH	OGLL	-133.19	1-14	-	-133.19	76	-133.19	76	68,76
24S 36E 15 221	PAUL P. SCOTT TRUST	OGLL	-178.19	1-14	-	-178.19	76	-178.19	76	68,76
24S 36E 23 212	FRED COOPER	OGLL	-142.25	1-14	-	-142.25	76	-142.25	76	68,76
24S 36E 23 212	FRED COOPER	OGLL	-143.71	1-14	-	-143.71	76	-143.71	76	76
24S 36E 23 222A	JAL COOPER CEMETERY	OGLL	-146.66	1-14	-	-146.66	76	-146.66	76	68,76
24S 36E 27 221A	JOHNNY POST	OGLL	-125.59	1-14	-	-125.59	76	-125.59	76	68,76
24S 37E 01 322	EVANS ESTATE	OGLL	-16.78	1-21	-	-16.78	76	-16.78	76	76
24S 37E 01 324	EVANS ESTATE	OGLL	-16.88	1-21	-	-16.88	76	-16.88	76	76
24S 37E 01 413	EVANS ESTATE	OGLL	-16.92	1-21	-	-16.92	76	-17.90	68	68,76
24S 37E 03 312	CLYDE COOPER	OGLL	-89.55	1-21	-	-89.55	76	-90.04	68	68,76
24S 37E 05 444	J. D. YOUNG	OGLL	-93.35	1-16	-	-93.35	76	-94.19	68	68,76
24S 37E 07 432	FOWLER HAIR	OGLL	-119.23	1-20	-	-119.23	76	-119.23	76	53,76
24S 37E 08 113	H. BAKER	OGLL	-124.80	1-16	-	-124.80	76	-125.32	68	68,76
24S 37E 08 144	H. BAKER	OGLL	-114.23	1-21	-	-113.44	68	-114.23	76	68,76
24S 37E 08 241	UNKNOWN	OGLL	-95.34	1-16	-	-95.34	76	-96.00	68	68,76
24S 37E 09 444	CLYDE COOPER	OGLL	-109.51	1-16	-	-109.28	68	-109.51	76	68,76
24S 37E 10 143	CLYDE COOPER	OGLL	-84.02	1-16	-	-83.91	68	-84.02	76	68,76
24S 37E 11 344A	CLYDE COOPER	OGLL	-64.84C	1-16	-	-151.49	56	-151.49	56	53,68,76
24S 37E 11 344B	CLYDE COOPER	OGLL	-64.69C	1-16	-	-64.69C	76	-64.69C	76	76
24S 37E 12 144	J. J. SMITH	OGLL	-26.65	1-21	-	-26.65	76	-26.65	76	68,76
24S 37E 13 434	CLYDE COOPER	OGLL	-42.84	1-21	-	-42.84	76	-42.84	76	76
24S 37E 16 423	HUMBLE OIL CO.	OGLL	-85.91	1-20	-	-85.91	76	-86.15	68	68,76
24S 37E 18 433	FRED COOPER	OGLL	-125.98	1-20	-	-125.98	76	-125.98	76	68,76
24S 37E 20 333	J. T. CRAWFORD	OGLL	-121.55	1-15	-	-121.55	76	-121.55	76	68,76
24S 37E 21 242	BUCKLES	OGLL	-83.80	2-05	-	-83.80	76	-83.80	76	76
24S 37E 21 413	SHELL	TRSC	-267.58	1-15	-	-267.58	76	-280.46	68	68,76
24S 37E 22 142	J. J. SMITH	OGLL	-111.81	1-15	-	-111.81	76	-111.81	76	76
24S 37E 25 234	CLYDE COOPER	OGLL	-91.34	1-15	-	-91.34	76	-91.34	76	76
24S 37E 27 111	UNKNOWN	OGLL	-55.83	1-15	-	-55.83	76	-55.83	76	76
24S 37E 28 242	MAE WOOLWORTH	OGLL	-64.42	1-14	-	-64.42	76	-64.42	76	68,76
24S 37E 31 244	J. T. CRAWFORD	OGLL	-76.17	1-14	-	-76.17	76	-76.17	76	76
24S 37E 34 412	UNKNOWN	OGLL	-51.93	1-14	-	-51.93	76	-51.93	76	53,76
24S 37E 34 432	J. J. SMITH	OGLL	-55.99	1-14	-	-54.64	68	-55.99	76	68,76
24S 37E 34 434	J. J. SMITH	OGLL	-47.45	1-14	-	-47.45	76	-47.45	76	76
24S 37E 35 331	F. M. MATHIS	OGLL	-78.32	1-14	-	-76.64	68	-78.32	76	68,76
24S 38E 17 323	CLYDE COOPER	OGLL	-76.33	1-13	-	-76.23	68	-76.33	76	68,76
24S 38E 30 312	CLYDE COOPER	OGLL	-64.40	1-13	-	-64.40	76	-64.40	76	66,76
24S 38E 31 142	ELLIOT OIL CO.	OGLL	-71.44	1-14	-	-63.97	68	-71.44	76	68,76
24S 38E 31 312	CLYDE COOPER	OGLL	-99.75	1-14	-	-99.75	76	-99.75	76	76
24S 38E 32 333	SKELLY OIL CO.	TRSC	-286.13	1-14	-	-286.13	76	-286.13	76	76
24S 38E 33 133	GULF OIL CO.	TRSC	-351.10	1-14	-	-351.10	76	-621.75	68	68,76

C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
24S 38E 33 344	GULF OIL CO.	TRSC	-329.11	1-14	-	-329.11	76	-590.42	68	68,76
25S 35E 03 233	MRS. BRYANT	OGLL	-107.90	1-09	-	-107.90	76	-107.90	76	76
25S 35E 10 223	MRS. BRYANT	OGLL	-75.05A	1-09	-	-159.94	76	-159.94	76	53,76
25S 35E 21 122	UNKNOWN	OGLL	-164.54	1-09	-	-164.54	76	-164.54	76	53,76
25S 36E 06 321	W. D. DINWIDDIE	TRSC	-292.29	1-07	+8.49	-292.29	76	-300.78	71	68,71,76
25S 36E 15 111	W. D. DINWIDDIE	OGLL	-119.37	1-07	-.07	-119.30	71	-119.37	76	68,71,76
25S 36E 24 112	FRED COOPER	TRSC	-295.09	1-15	-	-295.09	76	-295.09	76	53,68,76
25S 36E 24 312	FRED COOPER	TRSC	-274.17	1-15	-	-274.17	76	-274.17	76	68,76
25S 36E 26 222	FRED COOPER	TRCL	-255.53	1-15	-	-255.53	76	-255.53	76	68,76
25S 36E 33 333	FRANK ANTHONY	TRCL	-245.26	1-14	-	-245.26	76	-245.26	76	76
25S 37E 01 222	CLYDE COOPER	OGLL	-99.92C	1-09	-	-255.53	76	-255.53	76	76
25S 37E 01 224	CLYDE COOPER	OGLL	-106.55C	1-13	-	-255.53	76	-255.53	76	76
25S 37E 01 242	CLYDE COOPER	OGLL	-107.76C	1-13	-	-255.53	76	-255.53	76	76
25S 37E 01 242	CLYDE COOPER	OGLL	-105.62C	1-09	-	-255.53	76	-255.53	76	76
25S 37E 01 323	CLYDE COOPER	OGLL	-101.17C	1-09	-	-38.33	76	-38.33	76	76
25S 37E 02 314	RICHMOND OIL CO.	QTAL	-112.25C	1-09	-	-103.92	68	-103.92	68	53,68,76
25S 37E 02 343	CITY OF JAL	OGLL	-103.03C	1-09	-	-103.92	68	-103.92	68	76
25S 37E 02 344	CITY OF JAL	OGLL	-102.67C	1-09	-	-103.92	68	-103.92	68	76
25S 37E 02 344	CITY OF JAL	OGLL	-101.10C	1-09	-	-103.92	68	-103.92	68	76
25S 37E 03 142	J. J. SMITH	QTAL	-45.73	1-09	-	-45.06	68	-45.73	76	68,76
25S 37E 10 412	EL PASO NAT. GAS CO.	OGLL	-81.19	1-08	-	-81.19	76	-91.78	68	68,76
25S 37E 10 414	UNKNOWN	OGLL	-78.44	1-08	-	-78.44	76	-78.44	76	76
25S 37E 10 414A	UNKNOWN	OGLL	-77.80	1-08	-	-77.80	76	-77.80	76	76
25S 37E 10 423	EL PASO NAT. GAS CO.	OGLL	-87.30	1-13	-	-87.30	76	-87.30	76	76
25S 37E 10 433A	J. M. OWEN	OGLL	-70.65	1-08	-	-70.65	76	-70.65	76	76
25S 37E 11 133	EL PASO NAT. GAS CO.	OGLL	-94.96	1-08	-	-94.96	76	-94.96	76	76
25S 37E 11 134	EL PASO NAT. GAS CO.	OGLL	-93.42	1-08	-	-93.42	76	-93.42	76	76
25S 37E 11 144	EL PASO NAT. GAS CO.	OGLL	-96.17	1-08	-	-96.17	76	-102.36	68	68,76
25S 37E 11 213	EL PASO NAT. GAS CO.	OGLL	-96.61	1-08	-	-96.61	76	-96.61	76	76
25S 37E 11 231	EL PASO NAT. GAS	TRCL	-94.52	1-08	-	-94.52	76	-94.52	76	76
25S 37E 12 244	CITY OF JAL	OGLL	-100.98	1-07	-	-100.98	76	-100.98	76	76
25S 37E 13 312	CITY OF JAL	QTAL	-76.50	1-07	-	-76.50	76	-76.50	76	76
25S 37E 13 312A	CITY OF JAL	QTAL	-76.96	1-07	-	-76.96	76	-76.96	76	76
25S 37E 13 321	CITY OF JAL	QTAL	-77.52	1-07	-	-77.52	76	-80.18	68	68,76
25S 37E 13 431	GEORGE BLOCKER	QTAL	-68.96	1-08	-	-68.96	76	-71.55	68	68,76
25S 37E 13 431	GEORGE BLOCKER	QTAL	-68.72	1-08	-	-68.72	76	-68.72	76	76
25S 37E 17 114	MAE WOOLWORTH	QTAL	-55.51	1-07	-	-55.51	76	-57.67	68	53,68,76
25S 37E 18 412	JAL COUNTRY CLUB	QTAL	-49.48C	1-06	-	-57.67	68	-57.67	68	76
25S 37E 18 421	JAL COUNTRY CLUB	QTAL	-60.31C	1-06	-	-62.85	68	-62.85	68	68,76
25S 37E 18 423	JAL COUNTRY CLUB	QTAL	-52.70C	1-06	-	-52.70C	76	-52.70C	76	76
25S 37E 18 441	JAL COUNTRY CLUB	QTAL	-44.30C	1-06	-	-44.30C	76	-44.30C	76	76
25S 37E 18 444	WILLIE CHANCE	QTAL	-39.65	1-07	-	-39.65	76	-39.65	76	76
25S 37E 19 244	C. E. REID	QTAL	-32.53	1-08	-	-32.53	76	-32.53	76	76
25S 37E 20 231	LEAMON BEAIRD	TRSC	-40.41	1-08	-	-40.41	76	-40.41	76	76
25S 37E 20 2318	LEAMON BEAIRD	TRSC	-43.08	1-08	-	-43.08	76	-43.08	76	76
25S 37E 20 231	LEAMON BEAIRD	QTAL	-40.07	1-08	-	-38.66	68	-40.07	76	68,76
25S 37E 20 231	LEAMON BEAIRD	QTAL	-42.44	1-08	-	-42.23	68	-42.44	76	68,76
25S 37E 20 233	LEAMON BEAIRD	TRCL	-188.57	1-08	-	-188.57	76	-188.57	76	76
25S 37E 22 421	CLYDE COOPER	QTAL	-24.02C	1-07	-	-25.68	68	-25.68	68	68,76
25S 37E 22 421A	CLYDE COOPER	QTAL	-23.56	1-07	-	-23.56	76	-23.56	76	76
25S 37E 24 422	GEORGE BLOCKER	QTAL	-68.48	1-07	-	-68.48	76	-68.48	76	76
25S 37E 26 143	CLYDE COOPER	QTAL	-99.24	1-07	-	-99.24	76	-99.24	76	68,76
25S 37E 33 123	UNKNOWN	QTAL	-86.28	1-09	-	-86.28	76	-87.94	68	53,66,68,76
25S 37E 36 244A	CLYDE COOPER	TRSC	-70.48	1-07	-	-70.48	76	-74.20	53	53,68,76
25S 37E 36 412	CLYDE COOPER	QTAL	-69.57	1-07	-	-69.57	76	-69.57	76	76
25S 38E 06 332	EL PASO NAT. GAS CO.	OGLL	-94.92	1-07	-	-94.92	76	-94.92	76	76
25S 38E 06 333	EL PASO NAT. GAS CO.	OGLL	-111.14	1-07	-	-111.14	76	-111.14	76	76
25S 38E 07 133	EL PASO NAT. GAS CO.	OGLL	-103.98	1-07	-	-101.73	68	-103.98	76	68,76
25S 38E 09 343	J. T. CRAWFORD	OGLL	-88.62	1-06	-	-88.62	76	-95.68	53	53,76
25S 38E 09 344	J. T. CRAWFORD	OGLL	-89.48	1-06	-	-89.48	76	-91.39	68	68,76
25S 38E 18 422	GEORGE BLOCKER	OGLL	-53.34	1-07	-	-51.12	68	-53.34	76	68,76
25S 38E 19 312	GEORGE BLOCKER	OGLL	-69.45	1-08	-	-69.45	76	-69.45	76	76
25S 38E 19 341	GEORGE BLOCKER	OGLL	-77.59	1-08	-	-75.80	68	-77.59	76	66,68,76
25S 38E 20 111	UNKNOWN	OGLL	-73.50	1-07	-	-71.66	68	-73.50	76	68,76
25S 38E 21 122	W. E. GRAY	OGLL	-86.53	1-13	-	-85.60	68	-87.72	54	54,66,68,76
25S 38E 29 214	GEORGE BLOCKER	OGLL	-50.26	1-09	-	-49.37	68	-50.26	76	68,76
25S 38E 31 133	T. LINEBERRY	QTAL	-71.05	1-08	-	-71.05	76	-71.28	68	68,76
25S 38E 32 341	TOMMY LINEBERRY	OGLL	-56.55	1-08	-	-56.55	76	-56.55	76	68,76
26S 33E 03 444	J. DINWIDDIE	QTAL	-115.65	1-08	-	-115.65	76	-115.65	76	76
26S 33E 03 444	J. DINWIDDIE	QTAL	-110.80	1-08	-	-110.80	76	-110.80	76	76
26S 33E 10 334	UNKNOWN	QTAL	-123.96	1-08	-	-123.96	76	-123.96	76	76
26S 33E 27 211	BATTLE AXE RANCH	QTAL	-76.52	1-08	-	-76.52	76	-76.52	76	76
26S 33E 27 211A	BATTLE AXE RANCH	QTAL	-74.07	1-08	-	-74.07	76	-74.07	76	76
26S 34E 06 214A	UNKNOWN	TRCL	-123.52	1-08	-	-123.52	76	-123.52	76	76
26S 35E 13 222	EL PASO NAT. GAS	OGLL	-244.40	1-13	-	-244.40	76	-244.40	76	76
26S 35E 24 342	MRS. SAM BECKHAM	QTAL	-209.53	1-14	-	-209.53	76	-209.53	76	76
26S 36E 09 444	FRANK ANTHONY	QTAL	-174.37	1-13	-	-174.37	76	-174.37	76	76
26S 36E 09 4448	FRANK ANTHONY	OGLL	-175.23	1-13	-	-175.23	76	-175.23	76	68,76
26S 36E 18 133	CITY OF JAL	OGLL	-234.21	1-13	-	-234.21	76	-234.21	76	76
26S 36E 18 311A	UNKNOWN	OGLL	-233.61	1-13	-	-233.61	76	-233.61	76	68,76

A well being pumped

C nearby well being pumped

TABLE 8.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA, CHAVES, AND EDDY COUNTIES, N. MEX., IN JANUARY-MAY 1976, CHANGE FROM JANUARY-MAY 1971 TO JANUARY-MAY 1976, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: ALVM, ALLUVIUM; OGLL, OGALLALA; TRSC, TRIASSIC; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	76 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
26S 36E 19 142	CITY OF JAL	OGLL	-223.52	1-14	-	-223.52	76	-223.52	76	68,76
26S 36E 23 222	FRANK ANTHONY	OGLL	-154.64	1-14	-	-154.64	76	-154.64	76	68,76
26S 36E 29 314	MRS. SAM BECKHAM	QTAL	-155.03	1-14	-	-155.03	76	-155.03	76	76
26S 36E 30 244	MONTIE BECKHAM	QTAL	-165.43	1-14	-	-165.43	76	-165.43	76	76
26S 36E 30 244	MRS. SAM BECKHAM	QTAL	-172.30	1-14	-	-172.30	76	-172.30	76	76
26S 37E 02 311	CLYDE COOPER	OGLL	-101.84	1-07	-	-90.61	68	-103.40	53	53,68,76
26S 37E 07 331	EL PASO NAT. GAS	TRSC	-174.31	1-08	-	-174.31	76	-174.31	76	76
26S 37E 09 324	TEXACO	ALVM	-85.76	1-08	-	-85.76	76	-85.76	76	76
26S 37E 11 344	MILLARD DUBLIN	OGLL	-98.91	1-06	-	-98.43	68	-98.91	76	68,76
26S 37E 12 133	CLYDE COOPER	OGLL	-105.35	1-07	-	-105.35	76	-105.35	76	68,76
26S 37E 16 442	UNKNOWN	OGLL	-95.88	1-08	-	-95.88	76	-95.88	76	76
26S 37E 19 433	TOMMY LINEBERRY	TRSC	-193.93	1-08	-	-193.93	76	-193.93	76	68,76
26S 37E 27 214	W. H. RHODES	TRSC	-212.62	1-29	-	-212.62	76	-212.62	76	76
26S 37E 29 242	TOMMY LINEBERRY	OGLL	-88.83	1-08	-	-88.83	76	-88.83	76	68,76
26S 38E 07 244	TOMMY LINEBERRY	OGLL	-61.97	2-17	-	-61.97	76	-61.97	76	68,76
26S 38E 08 444	TOMMY LINEBERRY	OGLL	-64.96	1-07	-	-64.96	76	-64.96	76	68,76
26S 38E 20 214	TOMMY LINEBERRY	OGLL	-40.05	1-07	-	-39.44	53	-40.77	68	53,68,76
26S 38E 29 411	TOMMY LINEBERRY	OGLL	-38.44	1-07	-	-38.44	76	-38.44	76	68,76
26S 38E 31 422	TOMMY LINEBERRY	TRSC	-159.94	1-07	-	-159.94	76	-201.40	68	66,68,76

TABLE 9.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY-FEBRUARY 1977, CHANGE FROM FEBRUARY 1976 TO JANUARY-FEBRUARY 1977, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: OGLL, OGALLALA; TRSC, TRIASSIC, VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	77 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
11S 32E 24 411	UNKNOWN	OGLL	-68.04	1-07	-.06	-65.85	61	-68.44	74	61,65-77
11S 33E 01 212	M. HARTON	OGLL	-28.28	1-14	-	-28.28	77	-28.28	77	77
11S 33E 01 224	M. HARTON	OGLL	-28.12	1-14	-	-28.12	77	-28.12	77	77
11S 33E 25 442	EPPERSON	OGLL	-33.42	1-07	+.06	-33.35	71	-34.02	66	54-77
12S 31E 23 333	F.E. DICKSON	OGLL	-129.46	1-07	+.08	-129.20	62	-130.37	55	54-77
12S 31E 26 333	F.E. DICKSON	OGLL	-131.26	1-07	+.39	-130.15	62	-131.85	72	54-63,65-77
12S 32E 03 433	UNKNOWN	OGLL	-51.50	1-07	+.07	-49.33	66	-51.57	76	65-77
12S 33E 28 222	MRS. B.C. ROACH	OGLL	-96.65	1-07	-	-96.65	77	-96.65	77	77
12S 34E 11 421	A.D. JONES	OGLL	-33.69	1-07	-.27	-29.78	50	-33.70	75	50-77
12S 36E 24 434	J.C. CLAY	OGLL	-20.73	2-23	-	-20.73	77	-24.85	55	48-60,77
12S 37E 06 131	UNKNOWN	OGLL	-22.12	1-07	-1.14	-20.98	76	-23.20	74	74-77
12S 37E 20 341	ALVIN BRECKON	OGLL	-21.61	1-07	-.67	-20.47	73	-26.63	55	54-77
12S 38E 04 132	G.C. COPELAND	OGLL	-38.64	1-07	+.28	-38.64	77	-43.35	41	41-77
13S 32E 25 214	N.R. GROSS	OGLL	-142.62	1-07	+.16	-142.62	77	-143.34	55	54-60,62-77
13S 34E 21 111	LEON RICE	OGLL	-63.50	1-07	-.53	-62.12	75	-64.77	68	65-69,71-77
13S 35E 02 111A	R.W. DUNCAN	OGLL	-29.82	1-07	-1.00	-26.53	56	-31.50	74	54-72,74-77
13S 35E 19 211	ELKAN	OGLL	-47.59	1-07	+.10	-44.75	46	-79.48	40	40-50,52-74,76-77
13S 35E 35 311	UNKNOWN	OGLL	-45.39	1-07	+.47	-45.39	77	-46.39	73	73-77
13S 36E 21 133	UNKNOWN	OGLL	-62.65	1-07	+1.24	-59.20	74	-64.20	75	74-77
13S 37E 04 422	BRADY LOWE	OGLL	-35.89	1-07	+.67	-33.83	43	-39.66	65	40-41,43-47,49-69,71-72,74-77
13S 37E 28 413	J.B. AND J.D. DOREN	OGLL	-63.08	1-07	-1.63	-31.70	45	-63.08	77	45-77
13S 38E 06 341	J.W. ANDERSON	OGLL	-62.15	1-07	+5.52	-43.02	45	-63.40	72	40-65,67-77
14S 33E 35 133	AMERADA PETROL. CORP.	OGLL	-100.39	1-07	+.17	-100.39	77	-101.11	61	61-77
14S 35E 06 211	UNKNOWN	OGLL	-44.38	1-07	-.83	-43.55	76	-45.20	75	75-77
14S 35E 23 313	PROPST AND ANDERSON	OGLL	-41.70	1-07	-1.91	-37.56	62	-43.50	75	54-77
14S 35E 25 241	M.J. WIGGINS	OGLL	-67.50	1-07	-2.62	-43.30	50	-67.50	77	49-77
14S 35E 30 134	W.A. ANDERSON	OGLL	-52.15	1-07	-2.09	-43.81	62	-52.15	77	39-69,71-77
14S 35E 33 433	W.A. ANDERSON	OGLL	-45.65	1-07	+.11	-39.65	52	-46.60	74	43-58,60-77
14S 36E 01 211	G.T. HANNERS	OGLL	-85.55	1-07	-3.75	-33.80	48	-85.55	77	48-52,54-77
14S 36E 02 113	LESLIE ESTEP	OGLL	-88.85	1-07	-2.91	-48.44	50	-88.85	77	49-77
14S 36E 06 421	RICHARDSON	OGLL	-62.23	1-07	-2.09	-39.03	44	-62.23	77	40-44,46-55,57-77
14S 36E 09 111	KARL CLAYTON	OGLL	-74.67	1-07	+1.73	-38.36	44	-76.40	76	39-77
14S 36E 10 212	KARL CLAYTON	OGLL	-85.07	1-07	-.71	-47.98	49	-85.07	77	49-77
14S 36E 21 111	MAYO	OGLL	-65.71	1-07	-.90	-42.69	49	-65.71	77	49-77
14S 36E 32 121	E.T. HOWELL	OGLL	-68.10	1-07	-1.73	-53.58	49	-70.09	71	49-66,68-77
14S 36E 33 131	BELL	OGLL	-80.72	1-08	-.96	-56.92	50	-80.72	77	49-77
14S 36E 35 111A	FREDIA WRIGHT	OGLL	-71.32	1-08	-2.25	-69.07	76	-71.32	77	74-77
14S 37E 03 114	HOBBS AND HEIDEL	OGLL	-73.50	1-07	-7.43	-44.81	52	-73.50	77	52-77
14S 37E 05 211	KNOLL	OGLL	-74.56	1-07	-3.64	-31.76	49	-74.56	77	49-77
14S 37E 07 311	E.L. HARBISON	OGLL	-78.55	1-07	-1.05	-42.82	49	-78.55	77	49-77
14S 37E 08 113	HARBISON	OGLL	-76.58	1-07	-4.08	-37.93	50	-76.58	77	49-77
14S 37E 13 311	W.T. CARTER	OGLL	-90.29	1-07	-1.99	-35.57	49	-90.29	77	49-77
14S 37E 14 111	GOFF AND JOHNSON	OGLL	-90.04	1-07	-2.72	-36.12	49	-90.04	77	49,51-58,60-77
14S 37E 16 421	C.A. FORT	OGLL	-74.70	1-07	-1.27	-28.86	43	-74.70	77	39-77

TABLE 9.--WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY-FEBRUARY 1977, CHANGE FROM FEBRUARY 1976 TO JANUARY-FEBRUARY 1977, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JANUARY OR FEBRUARY, IN FEET, REFERENCED TO LAND-SURFACE DATUM.

SOURCE: OGLL, OGALLALA; TRSC, TRIASSIC, VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	77 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
14S 37E 19 111	A.B. HENNINGTON	OGLL	-69.11	1-07	-1.61	-41.15	50	-69.11	77	49-62,64-77
14S 37E 20 412	G.O. DURHAM	OGLL	-79.16	1-07	-2.37	-33.30	45	-79.16	77	40-68,70-77
14S 37E 27 311	J.R. FORT	OGLL	-80.83	1-07	-3.15	-35.13	48	-80.83	77	48-77
14S 37E 31 333	AMANDA MILLER	OGLL	-78.20	1-08	-3.80	-44.80	50	-78.20	77	50-72,74-77
14S 38E 07 113	HEIDEL AND TAYLOR	OGLL	-82.94	1-07	-4.25	-40.73	50	-82.94	77	50-72,74-77
14S 38E 21 311	I.M. COX	OGLL	-59.83	1-07	-2.27	-32.48	49	-59.83	77	49-77
14S 38E 27 313	GUY CAVE	OGLL	-68.94	1-07	-4.02	-38.30	51	-68.94	77	51-53,55-77
14S 38E 31 111	ALDRIDGE	OGLL	-65.35	1-07	+.56	-37.45	50	-65.91	76	49-74,76-77
15S 32E 06 223	TEXACO	OGLL	-188.39	1-07	+.01	-188.10	68	-189.13	67	66-77
15S 33E 14 143	J. ETCHEVERRY	OGLL	-101.47	1-07	-1.53	-99.94	76	-101.47	77	65-68,70-71,75-77
15S 35E 31 422	JOE PRICE	OGLL	-57.91	1-08	-.05	-54.14	51	-57.91	77	49-58,60-66,68-77
15S 36E 01 311	J.W. SCOTT	OGLL	-74.03	1-08	-.86	-43.60	49	-74.03	77	49-73,75-77
15S 36E 05 211	J.P. CAUDILL	OGLL	-74.35	1-07	-1.03	-52.73	51	-74.76	75	50-77
15S 36E 14 131	F.O. GRAHAM	OGLL	-63.56	1-08	-.53	-42.38	45	-63.56	77	41-45,52-77
15S 36E 17 111	B.F. AND WALTER ADAMS	OGLL	-74.60	1-07	-4.31	-44.47	50	-74.60	77	49-69,71-77
15S 36E 20 133	E.B. PARSONS	OGLL	-73.65	1-07	+3.38	-45.25	49	-77.03	76	49-77
15S 36E 28 113	J.R. HALE	OGLL	-77.39	1-07	-.81	-44.53	47	-77.39	77	47-63,65-77
15S 36E 29 112	G.A. FISHER	OGLL	-74.65	1-07	+.06	-44.90	48	-74.71	76	48-77
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-65.99	1-07	+.28	-46.14	51	-66.27	76	49-77
15S 36E 34 111	B.J. MARKRIDER	OGLL	-72.26	1-08	-.61	-44.12	48	-75.74	71	48-58,60-66,68-71,73-77
15S 37E 04 113	W. ANDERSON	OGLL	-69.32	1-08	-1.75	-37.10	50	-69.32	77	50-77
15S 37E 07 111	D.H. CROCKETT	OGLL	-73.10	1-08	-2.38	-46.13	50	-73.10	77	50-73,75-77
15S 37E 19 311	OTTO DEAN	OGLL	-66.46	1-08	-2.29	-41.09	50	-66.46	77	48-50,52,54-64,66-77
15S 37E 20 221	J.E. STEELE	OGLL	-70.95	1-08	-1.46	-35.30	50	-70.95	77	49-77
15S 37E 23 112	NELLIE FORT	OGLL	-54.86	1-08	-1.55	-35.59	51	-54.86	77	51-77
15S 37E 27 111	C.E. RENSHAW	OGLL	-71.35	1-08	-2.29	-29.38	43	-71.35	77	42-44,46-77
15S 37E 29 111	T. WILKS	OGLL	-71.05	1-08	-.83	-39.08	51	-71.05	77	51-77
15S 37E 31 132	W.R. DEAN	OGLL	-66.09	1-08	+.13	-35.04	50	-66.22	76	49-77
15S 37E 33 311	YARBRO	OGLL	-73.77	1-08	-1.34	-35.97	50	-73.77	77	50-64,66-77
15S 38E 10 321	LOWE	OGLL	-46.49	1-07	-2.16	-31.84	51	-46.49	77	51-77
15S 38E 22 432	T.R. FORT	OGLL	-47.38	1-07	-3.37	-28.72	42	-47.38	77	40-53,55-77
15S 38E 35 131	WAITS	OGLL	-58.23	1-07	-1.15	-37.61	50	-58.23	77	50-58,60-73,75-77
16S 34E 20 233	MARATHON OIL CO.	OGLL	-108.54	1-08	-.06	-104.80	68	-108.54	70	61,65-77
16S 35E 13 112	C.E. MILBURN	OGLL	-52.03	1-07	+.28	-43.38	49	-54.58	73	49-77
16S 35E 24 111	T.G. HESTER	OGLL	-50.72	1-07	+.12	-44.09	51	-55.63	66	51-77
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-42.60	1-07	+.18	-35.37	49	-43.87	74	49-77
16S 36E 04 322	LOVINGTON REC.	OGLL	-65.82	1-07	-.52	-65.30	76	-65.82	77	72-77
16S 36E 05 124	I.D. PHILLIPS	OGLL	-63.34	1-07	-.13	-50.09	48	-64.44	71	48-71,73-77
16S 36E 08 211	H.W. GILLETTE	OGLL	-68.80	1-07	-	-68.80	77	-68.80	77	77
16S 36E 11 241	LOVINGTON COUNTRY CLB	OGLL	-69.99	1-08	+9.27	-53.97	48	-84.85	71	48-53,56,58-61,63-64,67-69, 71-73,75-77
16S 36E 23 241	T.H. MONTEITH	OGLL	-57.99	1-07	-.72	-46.68	55	-62.59	72	54-58,60-63,65-77
16S 37E 01 311	WILKS	OGLL	-79.72	1-08	-4.27	-34.99	50	-79.72	77	50-77
16S 37E 02 211	HARADA	OGLL	-77.41	1-08	-3.12	-38.33	50	-77.41	77	50-77
16S 37E 07 114	BEAL GLEASON	OGLL	-62.48	1-08	-3.97	-38.32	50	-62.48	77	50-77
16S 37E 11 111	H.J. TAYLOR	OGLL	-76.16	1-08	-3.70	-31.93	49	-76.16	77	49-50,52-77
16S 37E 14 211	GREEN	OGLL	-73.19	1-08	-1.02	-39.73	50	-73.66	72	50-77
16S 37E 25 111	R.L. DAVIS	OGLL	-63.76	1-07	+8.21	-36.87	50	-63.76	77	50-77
16S 38E 03 333	STATE OF N. MEX.	OGLL	-43.15	1-07	-1.90	-24.60	56	-44.11	71	54-77
16S 38E 27 111	WOODYS ACRES INC.	OGLL	-80.52	1-07	-.48	-32.89	50	-80.52	77	50-77
16S 38E 30 211	MITCHELL	OGLL	-60.84	1-07	-4.31	-36.82	51	-60.84	77	51-64,67-77
16S 38E 34 131A	WOODYS ACRES INC.	OGLL	-102.45	1-07	-3.68	-63.47	59	-102.45	77	59-77
16S 39E 29 233	SIMS AND HOLDER	OGLL	-87.22	1-07	-2.36	-54.85	50	-87.22	77	50-58,60-77
17S 33E 13 341	POTASH CO. OF AMERICA	OGLL	-170.70	1-08	-3.52	-146.36	53	-170.70	77	53-77
17S 34E 28 223	SOUTHWEST POTASH	OGLL	-150.59	1-08	-2.02	-133.01	69	-153.41	68	68-77
17S 34E 35 130	STATE OF N. MEX.	OGLL	-120.57	1-08	-1.23	-89.88	53	-120.57	77	44-58,60-77
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-38.58	1-08	-.34	-33.05	49	-38.58	77	48-56,58-59,61-77
17S 37E 10 211	S.M. REILAND	OGLL	-54.93	1-07	-2.66	-32.87	49	-55.95	75	49-77
17S 37E 12 113	LEE STILES	OGLL	-72.85	1-07	-.33	-40.69	50	-72.85	77	50-77
17S 37E 34 111	C.G. GOODWIN	OGLL	-64.02	1-07	-3.31	-42.13	57	-69.74	73	57-77
17S 38E 02 311	W.V. LAWRENCE	OGLL	-75.41	1-07	-2.06	-43.65	51	-75.41	77	49-77
17S 38E 07 111A	L.R. SEBRINGS	OGLL	-65.67	1-07	-2.18	-35.94	52	-65.67	77	52-77
17S 38E 08 211	J.J. HANDLEY JR.	OGLL	-68.74	1-07	-1.56	-36.46	50	-68.74	77	50-57,59-77
17S 38E 24 133	W.V. LAWRENCE	OGLL	-51.00	1-07	-.45	-41.30	50	-57.00	70	50-58,60-64,66-77
17S 38E 31 311	G.L. BEENE	OGLL	-53.06	1-07	-1.73	-26.71	49	-53.06	77	49-71,74-77
17S 38E 36 113	W.E. BUSBY	OGLL	-50.58	1-07	-.79	-24.78	44	-50.58	77	44-64,66-77
18S 34E 22 343	CONOCO OIL CO.	OGLL	-110.09	1-08	-.10	-109.22	67	-110.82	72	65-77
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-74.74	1-08	-.12	-69.49	56	-74.78	74	54-77
18S 35E 20 214	INT MIN AND CHEM CORP	OGLL	-73.87	1-08	-.19	-72.16	61	-73.87	77	54-58,60-77
18S 36E 27 111	STATE OF N. MEX.	OGLL	-45.14	1-08	-.51	-38.13	43	-45.60	74	43-77
18S 38E 03 313	G. MOONEY	OGLL	-59.25	1-07	-2.31	-29.68	52	-59.25	77	52-77
19S 36E 19 113	W.M. EVANS	VLFL	-16.50	1-08	-.87	-15.06	47	-17.93	41	39-77
19S 37E 34 111	UNKNOWN	OGLL	-20.05A	1-07	+.02	-22.12	75	-22.33	74	74-77
19S 38E 30 121	UNKNOWN	OGLL	-29.24	1-07	-.71	-28.53	76	-30.52	74	74-77
19S 38E 34 222	J.O. COURSEY	OGLL	-49.47	1-07	+.13	-42.27	49	-55.05	72	49-59,61-77
20S 33E 18 123	UNKNOWN	TRSC	-129.46	1-07	+.08	-129.46	77	-129.54	76	76-77
20S 33E 20 222	UNKNOWN	TRSC	-131.26	1-07	+.39	-36.84	71	-131.65	76	71,76-77
20S 35E 01 222	H.S. RECORD	VLFL	-20.88	1-07	+2.02	-20.88	77	-27.00	71	59-73,75-77

A well being pumped

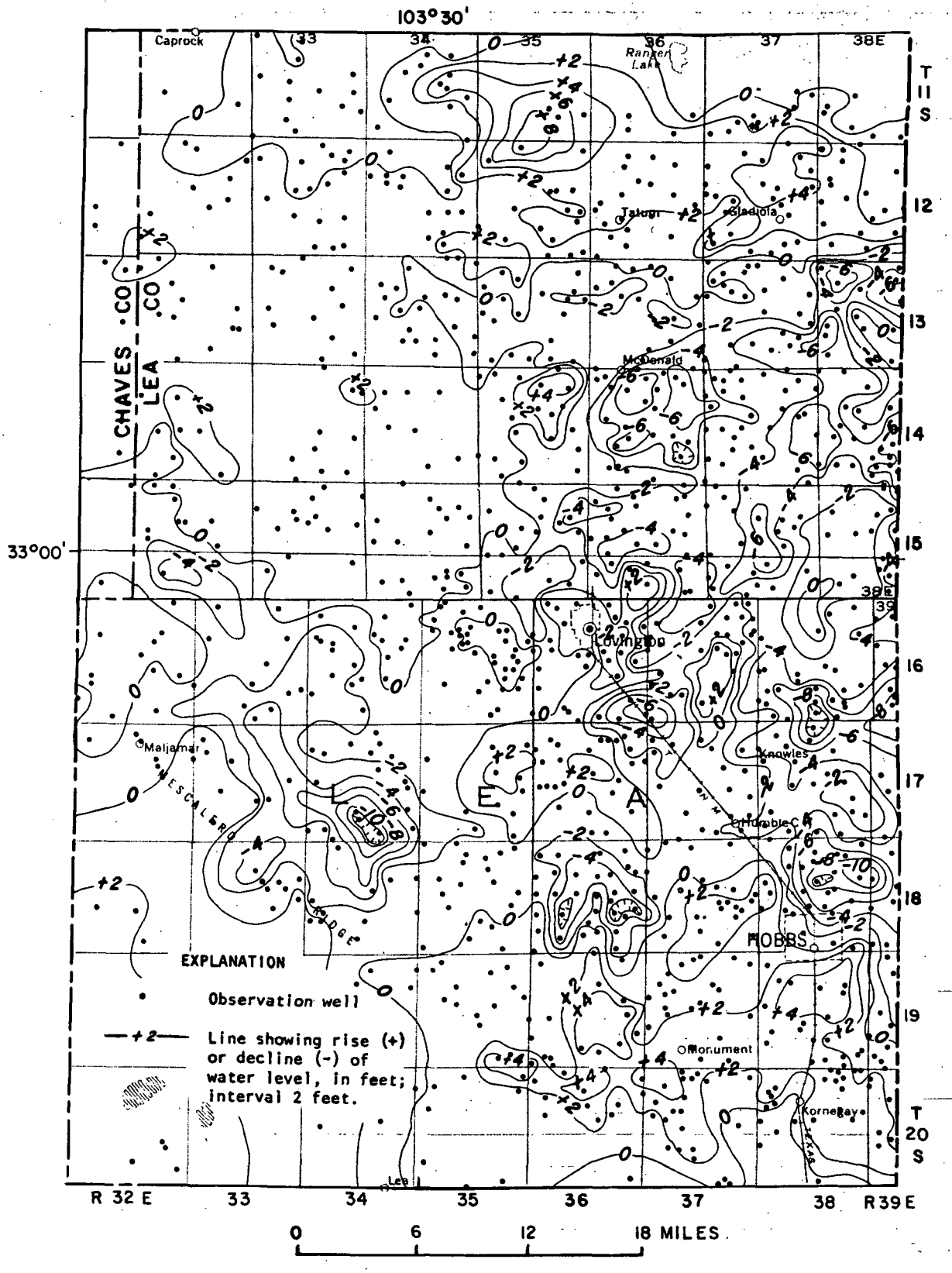


FIGURE 8.--Change of ground-water level from January-May 1971 to January-May 1976 in the Tatum-Lovington-Hobbs area, Lea and Chaves Counties, N. Mex.

TABLE 10.--Daily water levels in well 16S.36E.04.322, City of Lovington, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Drilled well completed in Ogallala Formation; depth 212 ft.; lsd is 3,926 ft. above msl. Highest water level 65.00 Jan. 14, 16, and 24, 1973; lowest water level 67.11 Aug. 24, 1971; records available 1971-76.

Daily highest water level, in feet below land-surface datum, from recorder graph, 1976												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	65.30	65.24	65.21	65.30	-	-	-	65.75	65.85	65.94	65.99	65.90
2	65.30	65.24	65.21	65.29	-	-	-	65.76	65.86	65.93	65.99	65.92
3	65.31	65.23	65.19	65.30	-	-	-	65.76	65.85	65.92	65.96	65.90
4	65.29	65.23	65.20	65.30	-	-	-	65.74	65.86	65.93	65.95	65.90
5	65.28	65.25	65.24	65.29	-	-	-	65.75	65.86	65.97	65.94	65.88
6	65.26	65.28	65.23	65.29	-	-	-	65.76	65.87	65.93	65.94	65.91
7	65.31	65.24	65.22	65.29	-	-	-	65.76	65.87	66.01	66.00	65.90
8	65.29	65.23	65.22	65.31	-	-	-	65.76	65.88	65.95	65.91	65.90
9	65.27	65.23	65.22	65.31	-	-	-	65.76	65.91	65.96	65.91	65.88
10	65.27	65.23	65.23	65.31	-	-	-	65.77	65.88	65.96	65.91	65.89
11	65.29	65.24	65.21	65.31	-	-	-	65.79	65.86	65.96	65.91	65.90
12	65.25	65.22	65.25	65.29	-	-	-	65.81	65.87	65.97	65.96	65.90
13	65.27	65.24	65.25	65.30	-	-	-	65.79	65.89	65.98	65.92	65.90
14	65.30	65.23	65.22	65.27	-	-	-	65.79	65.89	65.94	65.90	65.87
15	65.26	65.22	65.24	65.25	-	-	-	65.80	65.89	65.95	65.90	65.89
16	65.29	65.22	65.26	65.26	-	-	-	65.82	65.89	66.00	65.94	65.89
17	65.27	65.22	65.24	65.30	-	-	-	65.82	65.89	65.96	65.94	65.87
18	65.24	65.23	65.24	65.32	-	-	-	65.82	65.89	65.96	65.90	65.86
19	65.26	65.22	65.22	65.30	-	-	-	65.83	65.89	66.01	65.90	65.86
20	65.29	65.21	65.25	65.33	-	-	65.72	65.83	65.92	65.99	65.92	65.90
21	65.28	65.28	65.28	-	-	-	65.72	65.83	65.90	65.96	65.94	65.85
22	65.24	65.28	65.29	-	-	-	65.73	65.84	65.89	65.95	65.92	65.85
23	65.23	65.25	65.25	-	-	-	65.74	65.83	65.91	65.96	65.92	65.85
24	65.22	65.22	65.27	-	-	-	65.74	65.84	65.91	65.98	65.91	65.81
25	65.25	65.24	65.24	-	-	-	65.73	65.84	65.89	65.96	65.87	65.85
26	65.29	65.23	65.26	-	-	-	65.73	65.83	65.90	65.96	65.88	65.84
27	65.28	65.22	65.26	-	-	-	65.72	65.84	65.92	66.03	65.93	65.79
28	65.27	65.20	65.23	-	-	-	65.73	65.85	65.93	65.99	65.94	65.85
29	65.25	65.21	65.28	-	-	-	65.74	65.85	65.94	65.96	65.92	65.79
30	65.23	-	65.31	-	-	-	65.74	65.85	65.95	65.99	65.91	65.79
31	65.26	-	65.30	-	-	-	65.75	65.83	-	66.02	-	65.80

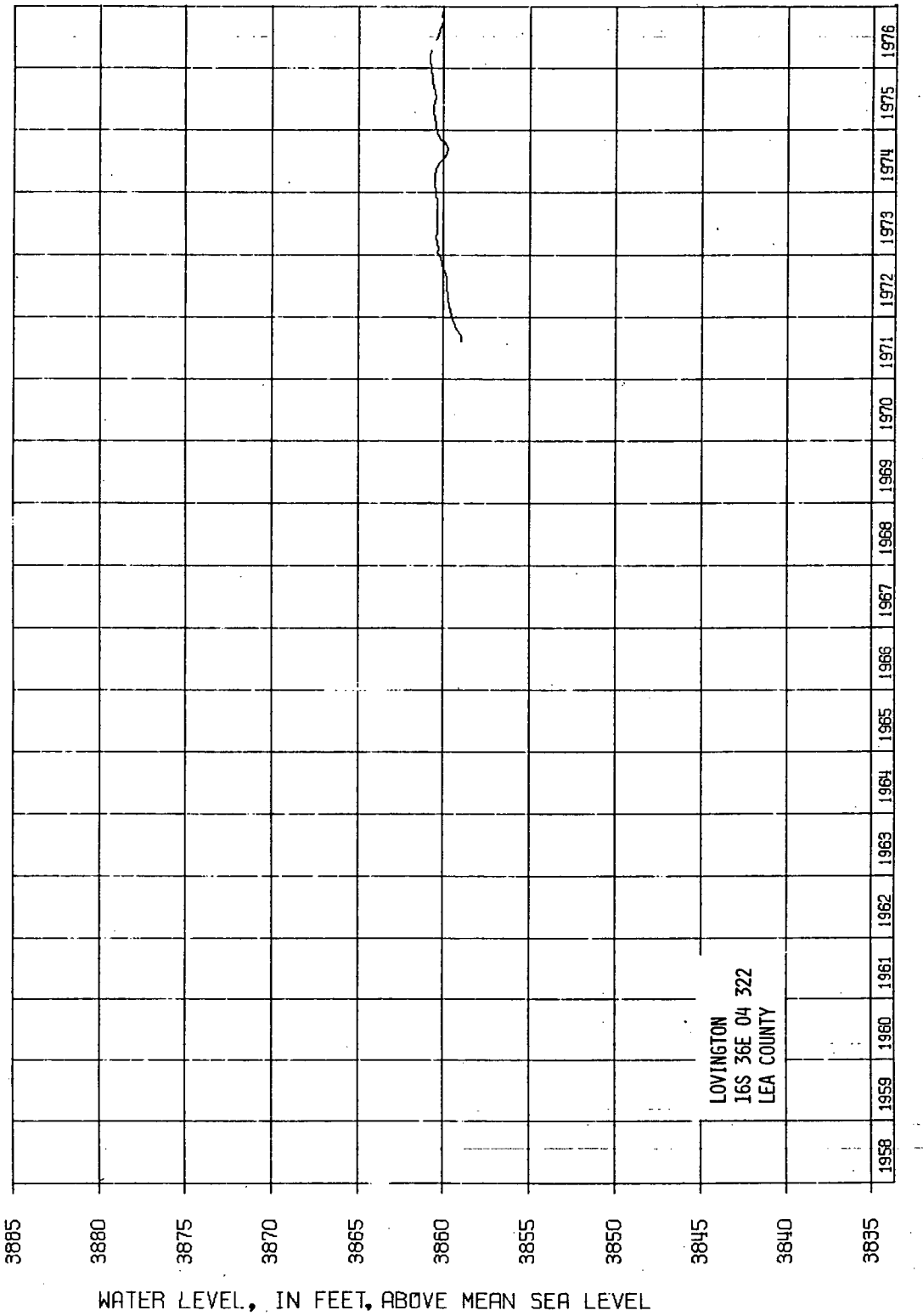


FIGURE 9.—Average-monthly water level in well 16S.36E.04.322, Tatum-Lovington-Hobbs area, Lea County, N. Mex.

TABLE 11.--Daily water levels in well 17S.33E.13.341, Potash Company of America, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Drilled well completed in Ogallala Formation; depth 252 ft.; lsd is 4,124 ft. above msl. Highest water level 146.05 Jan. 21, 1953; lowest water level 168.10 Dec. 20, 1976; records available 1952-76.

	Daily highest water level, in feet below land-surface datum, from recorder graph, 1976											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-	167.05	167.15	167.07	167.12	167.35	167.22	-	167.64	167.73	167.68	167.97
2	-	167.00	167.12	166.96	167.10	167.30	167.20	167.35	167.64	167.69	167.69	167.92
3	-	166.96	166.98	166.99	167.22	167.29	167.29	167.32	167.62	167.68	167.74	167.90
4	-	167.05	167.14	167.00	167.18	167.26	167.30	167.30	167.63	167.68	167.74	167.90
5	-	167.05	167.09	166.91	167.08	167.27	167.25	167.30	167.62	167.74	167.74	167.90
6	-	167.13	167.03	166.88	167.26	167.19	167.24	167.32	167.60	167.65	167.73	167.95
7	h167.04	166.98	166.88	166.98	167.26	167.14	167.25	167.31	167.60	167.82	167.76	167.93
8	-	166.97	166.94	167.07	167.25	167.13	167.26	167.29	167.60	167.74	167.55	167.93
9	-	166.99	166.92	167.00	167.18	167.14	167.28	167.28	167.64	167.67	167.56	167.93
10	-	167.05	166.93	167.01	167.23	167.12	167.30	167.29	167.63	167.67	167.65	167.96
11	-	167.13	166.85	167.08	167.22	167.09	167.30	167.50	167.61	167.68	167.65	167.96
12	-	166.98	167.01	167.08	167.14	167.20	167.29	167.50	167.59	167.72	167.79	167.95
13	h167.08	167.06	166.91	167.07	167.28	167.18	167.30	167.47	167.64	167.75	167.75	167.98
14	167.10	166.95	166.87	167.08	167.16	167.16	167.33	167.38	167.65	167.70	167.75	167.95
15	166.93	166.95	166.94	166.96	167.15	167.32	167.34	167.38	167.64	167.71	167.75	167.96
16	167.19	166.96	166.91	167.05	167.27	167.25	167.40	167.45	167.65	167.74	167.74	168.01
17	167.02	166.85	166.87	167.10	167.17	167.23	167.39	167.43	167.65	167.70	167.74	167.96
18	166.95	166.97	166.95	167.11	167.17	167.39	167.40	167.47	167.64	167.65	167.74	167.95
19	167.30	167.00	166.86	166.96	167.11	167.33	167.40	167.44	167.64	167.79	167.73	167.95
20	167.10	166.92	167.16	167.02	167.14	167.27	167.40	167.46	167.67	-	167.74	168.10
21	167.08	166.92	167.05	166.91	167.18	167.22	167.43	167.46	167.66	-	167.75	167.95
22	167.02	167.08	167.12	166.91	167.18	167.27	167.43	167.50	167.64	-	167.82	167.93
23	167.02	167.01	166.95	166.95	167.24	167.29	167.45	167.50	167.66	-	167.82	167.95
24	167.02	166.98	167.11	167.11	167.27	167.37	167.47	167.52	167.67	-	167.83	167.94
25	167.23	167.20	167.03	166.97	167.21	167.29	167.46	167.53	167.65	-	167.81	167.96
26	167.29	167.16	167.32	166.96	167.33	167.27	167.45	167.53	167.69	-	167.81	167.95
27	167.13	167.11	167.00	167.05	167.34	167.30	167.46	167.53	167.71	-	167.94	167.91
28	167.07	167.11	166.96	167.07	167.20	167.28	167.49	167.62	167.77	-	167.94	168.08
29	167.07	167.17	167.18	167.11	167.24	167.27	167.52	167.61	167.74	-	167.90	168.05
30	166.99	-	167.20	167.06	167.31	167.26	167.50	167.58	167.75	-	167.90	168.05
31	167.15	-	167.07	-	167.36	-	167.52	167.57	-	-	-	168.05

h steel tape measurement, not necessarily the high

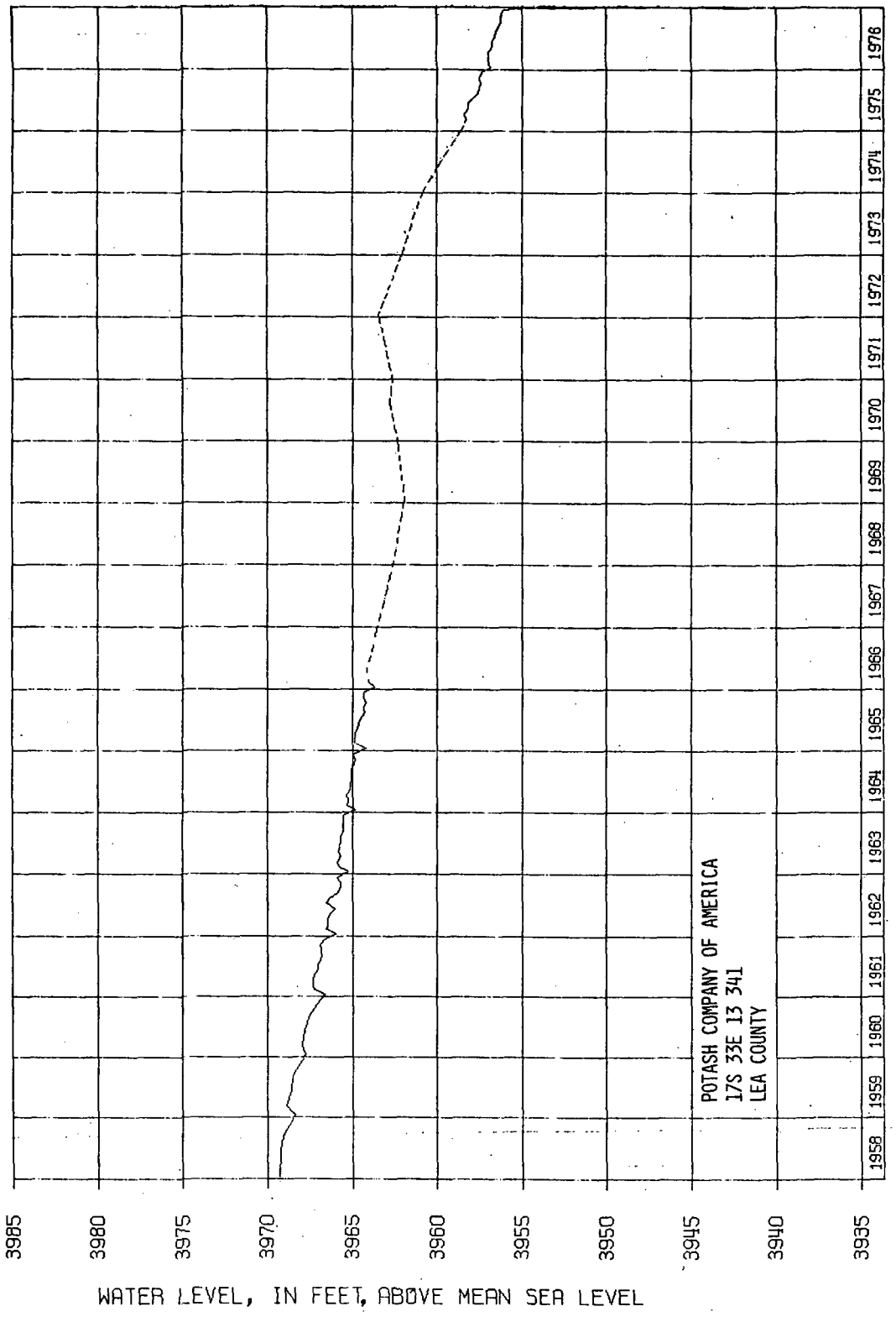


FIGURE 10.--Average-monthly water level in well 17S.33E.13.341, Tatum-Lovington-Hobbs area, Lea County, N. Mex.

BASIC DATA REPORT

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1977

By
J. D. Hudson - U.S. Geological Survey

With

A bibliography of papers and publications pertaining to ground water in New Mexico published or released to the open file in 1977, with additions from 1848-1976

By
R. L. Borton and D. M. Jones
State Engineer Office

1980

TABLE 9.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1978, CHANGE FROM JANUARY 1977 TO JANUARY 1978, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: OGLL, OGALLALA; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	78 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
11S 32E 24 411	UNKNOWN	OGLL	-68.14	1-04	-.10	-65.85	61	-68.44	74	61,65-78
12S 34E 11 421	A.D. JONES	OGLL	-33.95	1-04	-.26	-29.78	50	-33.95	78	49-78
12S 37E 20 341	ALVIN BRECKON	OGLL	-22.09	1-04	-.48	-20.47	73	-26.63	55	54-78
13S 35E 02 111A	R.W. DUNCAN	OGLL	-30.87	1-04	-1.05	-26.53	56	-31.50	74	53-72,74-78
13S 35E 35 311	UNKNOWN	OGLL	-45.39	1-04	0.00	-45.39	77	-46.39	73	73-78
13S 36E 21 133	UNKNOWN	OGLL	-63.01	1-04	-.36	-59.20	74	-64.20	75	74-78
13S 36E 26 324	IONA MC CLISH	OGLL	-79.84	1-04	-	-42.24	49	-79.84	78	49-76,78
13S 37E 04 422	BRADY LOWE	OGLL	-35.74	1-04	+.15	-33.83	43	-39.66	65	40-41,43-47,49-69,71-72,74-78
13S 37E 04 422										
13S 37E 28 413	J.B. AND J.D. DOREN	OGLL	-66.81	1-04	-3.73	-31.70	45	-66.81	78	45-78
13S 38E 06 341	J.W. ANDERSON	OGLL	-60.48	1-04	+1.67	-43.02	45	-63.40	72	40-65,67-78
14S 35E 06 211	UNKNOWN	OGLL	-42.58	1-04	+1.80	-42.58	78	-45.20	75	75-78
14S 35E 23 313	PROPST AND ANDERSON	OGLL	-44.17	1-04	-2.47	-37.56	62	-44.17	78	54-78
14S 35E 25 241	M.J. WIGGINS	OGLL	-69.50	1-04	-2.00	-43.30	50	-69.50	78	49-78
14S 35E 30 134	W.A. ANDERSON	OGLL	-52.86	1-04	-.71	-43.81	62	-52.86	78	39-69,71-78
14S 35E 33 433	W.A. ANDERSON	OGLL	-45.37	1-04	+.28	-39.65	52	-46.60	74	36-78
14S 36E 02 113	LESLIE ESTEP	OGLL	-89.90	1-04	-1.05	-48.44	50	-89.90	78	49-78
14S 36E 06 421	RICHARDSON	OGLL	-61.94	1-04	+.29	-39.03	44	-62.23	77	40-44,46-55,57-78
14S 36E 09 111	KARL CLAYTON	OGLL	-77.65	1-04	-2.98	-38.36	44	-77.65	78	39-78
14S 36E 10 212	KARL CLAYTON	OGLL	-86.91	1-04	-1.84	-47.98	49	-86.91	78	49-78
14S 36E 21 111	MAYO	OGLL	-66.45	1-04	-.74	-42.69	49	-66.45	78	49-78
14S 36E 32 121	E.T. HOWELL	OGLL	-68.55	1-04	-.45	-53.58	49	-70.09	71	49-66,68-78
14S 36E 33 131	BELL	OGLL	-81.63	1-04	-.91	-56.92	50	-81.63	78	49-78
14S 36E 35 111A	FREDIA WRIGHT	OGLL	-71.01	1-04	+.31	-69.07	76	-71.32	77	74-78
14S 37E 03 114	HOBBS AND HEIDEL	OGLL	-78.56	1-04	-5.06	-44.81	52	-78.56	78	52-78
14S 37E 05 211	KNOLL	OGLL	-76.91	1-04	-2.35	-31.76	49	-76.91	78	49-78
14S 37E 06 111	E.L. HARBISON	OGLL	-85.47	1-05	-	-37.38	49	-87.98	76	49-62,66,71,76,78
14S 37E 07 311	E.L. HARBISON	OGLL	-79.98	1-04	-1.43	-42.82	49	-79.98	78	49-78
14S 37E 08 113	HARBISON	OGLL	-77.39	1-04	-.81	-37.93	50	-77.39	78	49-78
14S 37E 13 311	W.T. CARTER	OGLL	-93.47	1-04	-3.18	-35.57	49	-93.47	78	49-78
14S 37E 14 111	GOFF AND JOHNSON	OGLL	-93.17	1-04	-3.13	-36.12	49	-93.17	78	48-49,51-78
14S 37E 16 421	C.A. FORT	OGLL	-75.09	1-04	-.39	-28.86	43	-75.09	78	39-78
14S 37E 19 111	A.B. HENNINGTON	OGLL	-69.62	1-04	-.51	-41.15	50	-69.62	78	49-62,64-78
14S 37E 20 412	G.O. DURHAM	OGLL	-77.98	1-04	+1.18	-33.30	45	-79.16	77	40-68,70-78
14S 37E 27 311	J.R. FORT	OGLL	-83.30	1-04	-2.47	-35.13	48	-83.30	78	48-78
14S 37E 31 333	AMANDA MILLER	OGLL	-76.39	1-04	+1.81	-43.59	49	-78.20	77	49-72,74-78
14S 38E 07 113	HEIDEL AND TAYLOR	OGLL	-85.04	1-04	-2.10	-40.73	50	-85.04	78	50-72,74-78
14S 38E 21 311	I.M. COX	OGLL	-62.64	1-04	-2.81	-32.48	49	-62.64	78	49-78
14S 38E 27 313	GUY CAVE	OGLL	-65.37	1-05	+3.57	-38.30	51	-68.94	77	51-53,55-78
14S 38E 31 111	ALDRIDGE	OGLL	-69.32	1-04	-3.97	-37.45	50	-69.32	78	49-74,76-78
15S 35E 31 422	JOE PRICE	OGLL	-58.21	1-04	-.30	-54.14	51	-58.21	78	49-58,60-66,68-78
15S 36E 01 311	J.W. SCOTT	OGLL	-72.73	1-04	+1.30	-43.60	49	-74.03	77	49-73,75-78
15S 36E 05 211	J.P. CAUDILL	OGLL	-73.61	1-04	+.74	-52.73	51	-74.76	75	50-78
15S 36E 14 131	F.O. GRAHAM	OGLL	-64.19	1-04	-.63	-42.38	45	-64.19	78	41-45,52-78
15S 36E 17 111	B.F. AND WALTER ADAMS	OGLL	-75.09	1-04	-.49	-44.47	50	-75.09	78	49-69,71-78
15S 36E 20 133	E.B. PARSONS	OGLL	-73.87	1-04	-.22	-45.25	49	-77.03	76	49-78
15S 36E 28 113	J.R. HALE	OGLL	-76.77	1-04	+.62	-44.53	47	-77.39	77	47-63,65-78
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-66.29	1-04	-.30	-46.14	51	-66.29	78	49-78
15S 36E 34 111	B.J. HARKRIDER	OGLL	-73.92	1-04	-1.66	-44.12	48	-75.74	71	48-58,60-66,68-71,73-78
15S 37E 04 113	W. ANDERSON	OGLL	-70.46	1-04	-1.14	-37.10	50	-70.46	78	50-78
15S 37E 07 111	O.H. CROCKETT	OGLL	-73.77	1-04	-.67	-46.13	50	-73.77	78	50-73,75-78
15S 37E 19 311	OTTO DEAN	OGLL	-66.63	1-04	-.17	-41.09	50	-66.63	78	48-50,52,54-64,66-78
15S 37E 20 221	J.E. STEELE	OGLL	-75.04	1-04	-4.09	-35.30	50	-75.04	78	49-78
15S 37E 21 334	R.W. DEAN	OGLL	-77.18A	1-04	-	-29.20	45	-70.78	75	36-68,70-75,78
15S 37E 23 112	NELLIE FORT	OGLL	-55.97	1-04	-1.11	-35.59	51	-55.97	78	51-78
15S 37E 27 111	C.E. RENSHAW	OGLL	-74.86	1-04	-3.51	-29.38	43	-74.86	78	42-44,46-78
15S 37E 29 111	T. WILKS	OGLL	-73.71	1-04	-2.66	-39.08	51	-73.71	78	51-78
15S 37E 31 132	W.R. DEAN	OGLL	-66.53	1-04	-.44	-35.04	50	-66.53	78	49-78
15S 37E 33 311	YARBRO	OGLL	-72.55	1-04	+1.22	-35.97	50	-73.77	77	50-64,66-78
15S 38E 10 321	LOWE	OGLL	-49.47	1-04	-2.98	-31.84	51	-49.47	78	51-78
15S 38E 22 432	T.R. FORT	OGLL	-47.88	1-04	-.50	-28.72	42	-47.88	78	40-53,55-78
16S 34E 20 233	MARATHON OIL CO.	OGLL	-109.24	1-04	-.70	-104.80	68	-109.24	78	61,65-78
16S 35E 13 112	C.E. HILBURN	OGLL	-51.90	1-04	+.13	-43.38	49	-54.58	73	48-78
16S 35E 24 111	T.G. HESTER	OGLL	-50.50	1-04	+.22	-44.09	51	-55.63	66	51-78
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-42.41	1-04	+.19	-35.37	49	-43.87	74	49-78
16S 36E 04 322	LOVINGTON REC.	OGLL	-65.89	1-04	-.07	-65.30	76	-65.89	78	72-78
16S 36E 05 124	I.D. PHILLIPS	OGLL	-63.23	1-04	+.11	-50.09	48	-64.44	71	48-71,73-78
16S 36E 08 211	H.W. GILLETTE	OGLL	-68.32	1-04	+.48	-68.32	78	-68.80	77	77-78
16S 36E 11 241	LOVINGTON COUNTRY CLB	OGLL	-70.47	1-04	-.48	-53.97	48	-84.85	71	48-53,56,58-61,63-64,67-69,71-73,75-78
16S 36E 11 241										
16S 36E 23 241	T.H. MONTEITH	OGLL	-58.55	1-04	-.56	-46.68	55	-62.59	72	54-58,60-63,65-78
16S 37E 01 311	WILKS	OGLL	-81.44	1-04	-1.72	-34.99	50	-81.44	78	50-78
16S 37E 02 211	HARADA	OGLL	-77.28	1-04	+.13	-38.33	50	-77.41	77	50-78
16S 37E 07 114	BEAL GLEASON	OGLL	-62.64	1-04	-.16	-38.32	50	-62.64	78	50-78
16S 37E 11 111	H.J. TAYLOR	OGLL	-78.42	1-04	-2.26	-31.93	49	-78.42	78	49-78
16S 37E 25 111	R.L. DAVIS	OGLL	-66.35	1-04	-2.59	-36.87	50	-66.35	78	50-78
16S 38E 03 333	STATE OF N. MEX.	OGLL	-43.99	1-04	-.84	-24.60	56	-44.11	71	54-78
16S 38E 27 111	WOODYS ACRES INC.	OGLL	-85.77	1-04	-5.25	-32.89	50	-85.77	78	50-78
16S 38E 30 211	MITCHELL	OGLL	-65.02	1-04	-4.18	-36.82	51	-65.02	78	51-64,67-78
16S 38E 34 131A	WOODYS ACRES INC.	OGLL	-104.32	1-04	-1.87	-63.47	59	-104.32	78	52,59-78

TABLE 9.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN JANUARY 1978, CHANGE FROM JANUARY 1977 TO JANUARY 1978, IN FEET, AND HIGHEST AND LOWEST RECORDED LEVELS IN JAN. OR FEB., IN FEET REFERENCED TO LAND-SURFACE DATUM.

SOURCE: OGLL, OGALLALA; VLFL, VALLEY FILL

LOCATION	OWNER OR NAME	SOURCE	78 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
16S 39E 29 233	SIMS AND HOLDER	OGLL	-89.42	1-04	-2.20	-54.85	50	-89.42	78	50-58,60-78
17S 33E 13 341	POTASH CO. OF AMERICA	OGLL	-169.82	1-04	+.88	-146.36	53	-170.70	77	53-78
17S 34E 28 223	SOUTHWEST POTASH	OGLL	-152.43	1-04	-1.84	-133.01	69	-153.41	68	68-78
17S 34E 35 130	STATE OF N. MEX.	OGLL	-123.00	1-04	-2.43	-89.88	53	-123.00	78	41-58,60-78
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-39.34	1-04	-.76	-33.05	49	-39.34	78	48-78
17S 37E 10 211	S.M. REILAND	OGLL	-58.86	1-04	-3.93	-32.87	49	-58.86	78	49-78
17S 37E 12 113	LEE STILES	OGLL	-74.82	1-04	-1.97	-40.69	50	-74.82	78	50-78
17S 37E 34 111	C.G. GOODWIN	OGLL	-60.95	1-04	+3.07	-42.13	57	-69.74	73	57-78
17S 38E 02 311	W.V. LAWRENCE	OGLL	-77.77	1-04	-2.36	-43.65	51	-77.77	78	49-78
17S 38E 07 111A	L.R. SEBRINGS	OGLL	-67.99	1-05	-2.32	-35.94	52	-67.99	78	52-78
17S 38E 08 211	J.J. HANDLEY JR.	OGLL	-70.26	1-04	-1.52	-36.46	50	-70.26	78	50-57,59-78
17S 38E 24 133	W.V. LAWRENCE	OGLL	-51.82	1-04	-.82	-41.30	50	-57.00	70	50-58,60-64,66-78
17S 38E 31 311	G.L. BEENE	OGLL	-54.70	1-04	-1.64	-26.71	49	-54.70	78	49-71,74-78
17S 38E 34 113	W.E. BUSBY	OGLL	-53.50	1-04	-2.92	-24.78	44	-53.50	78	44-64,66-78
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-74.80	1-04	-.06	-69.49	56	-74.80	78	54-78
18S 36E 27 111	STATE OF N. MEX.	OGLL	-45.90	1-04	-.76	-38.13	43	-45.90	78	39-78
18S 38E 03 313	G. MOONEY	OGLL	-61.98	1-04	-2.73	-29.68	52	-61.98	78	52-78
19S 36E 19 113	W.M. EVANS	VLFL	-17.65	1-04	-1.15	-15.06	47	-17.93	41	39-78
19S 38E 30 121	UNKNOWN	OGLL	-30.54	1-04	-1.30	-28.53	76	-30.54	78	74-78
19S 38E 34 222	J.O. COURSEY	OGLL	-49.87	1-04	-.40	-42.27	49	-55.05	72	49-59,61-78

TABLE 10.--Daily water levels in well 16S.36E.04.322, City of Lovington, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Drilled well completed in Ogallala Formation; depth 212 ft.; lsd is 3,926 ft. above msl. Highest water level 65.19 Mar. 3, 1976; lowest water level 67.11 Aug. 24, 1971; records available 1971-77.

Daily highest water level, in feet below land-surface datum, from recorder graph, 1977

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	65.82	65.69	65.54	65.42	-	65.50	65.70	65.83	65.99	66.04	65.98	65.88
2	65.80	65.69	65.54	65.43	-	65.50	65.70	65.84	65.99	66.06	65.97	65.87
3	65.77	65.73	65.55	65.43	-	65.50	65.71	65.83	65.97	66.04	66.00	65.86
4	65.80	65.73	65.56	65.44	-	65.52	65.71	65.80	65.97	66.03	65.99	65.85
5	65.80	65.69	65.57	65.45	-	65.53	65.72	65.84	65.99	66.03	65.96	65.85
6	65.80	65.70	65.57	65.46	-	65.53	65.73	65.86	65.99	66.03	65.90	65.87
7	65.77	65.74	65.56	65.45	-	65.53	65.73	65.86	65.99	66.02	65.93	65.82
8	65.78	65.69	65.46	65.44	-	65.50	65.73	65.85	65.97	66.03	65.92	65.83
9	65.78	65.67	65.43	65.43	-	65.52	65.75	65.85	69.98	66.02	66.05	65.93
10	65.78	65.68	65.42	65.43	-	65.53	65.74	65.86	65.99	66.02	66.02	65.87
11	65.78	65.66	65.47	65.43	-	65.55	65.74	65.89	65.98	66.06	66.03	65.83
12	65.78	65.68	65.47	65.43	-	65.55	65.75	65.87	65.96	66.05	65.99	65.80
13	65.77	65.65	65.44	65.41	-	65.54	65.76	65.86	66.00	66.02	65.99	65.85
14	65.78	65.67	65.46	65.40	-	65.57	65.77	65.88	65.98	66.03	65.93	65.82
15	65.78	65.67	65.48	65.42	-	65.60	65.77	65.89	65.98	66.07	65.93	65.79
16	65.78	65.67	65.40	65.42	-	65.59	65.78	65.90	66.01	66.02	65.96	65.77
17	65.77	65.66	65.43	65.42	-	65.59	65.78	65.91	66.01	66.02	65.97	65.82
18	65.77	65.66	65.44	65.42	-	65.60	65.77	65.89	66.03	66.03	65.91	65.79
19	65.76	65.68	65.46	65.40	-	65.60	65.77	65.90	66.01	66.02	65.89	65.82
20	65.77	65.65	65.44	65.42	-	65.62	65.77	65.91	66.00	66.01	65.93	65.87
21	65.76	65.63	65.47	65.44	-	65.62	65.78	65.93	66.02	66.01	65.96	65.84
22	65.75	65.58	65.45	65.45	-	65.63	65.80	65.92	66.00	66.03	65.92	65.78
23	65.75	65.59	65.44	-	-	65.64	65.78	65.93	66.00	66.01	65.92	65.80
24	65.77	65.58	65.44	-	-	65.65	65.78	65.92	66.01	66.01	65.91	65.79
25	65.74	65.56	65.44	-	65.40	65.65	65.80	65.94	66.03	66.02	65.93	65.82
26	65.71	65.60	65.43	-	65.46	65.65	-	65.92	66.03	66.00	65.86	65.80
27	65.69	65.59	65.42	-	65.46	65.66	-	65.95	66.03	66.00	65.90	65.79
28	65.75	65.58	65.43	-	65.47	65.66	-	65.97	66.02	66.00	65.89	65.79
29	65.71	-	65.44	-	65.46	65.68	65.80	65.97	66.01	65.99	65.92	65.78
30	65.75	-	65.47	-	65.48	65.67	65.82	65.96	65.99	65.96	65.86	65.78
31	65.73	-	65.44	-	65.48	-	65.83	65.97	-	65.95	-	65.79

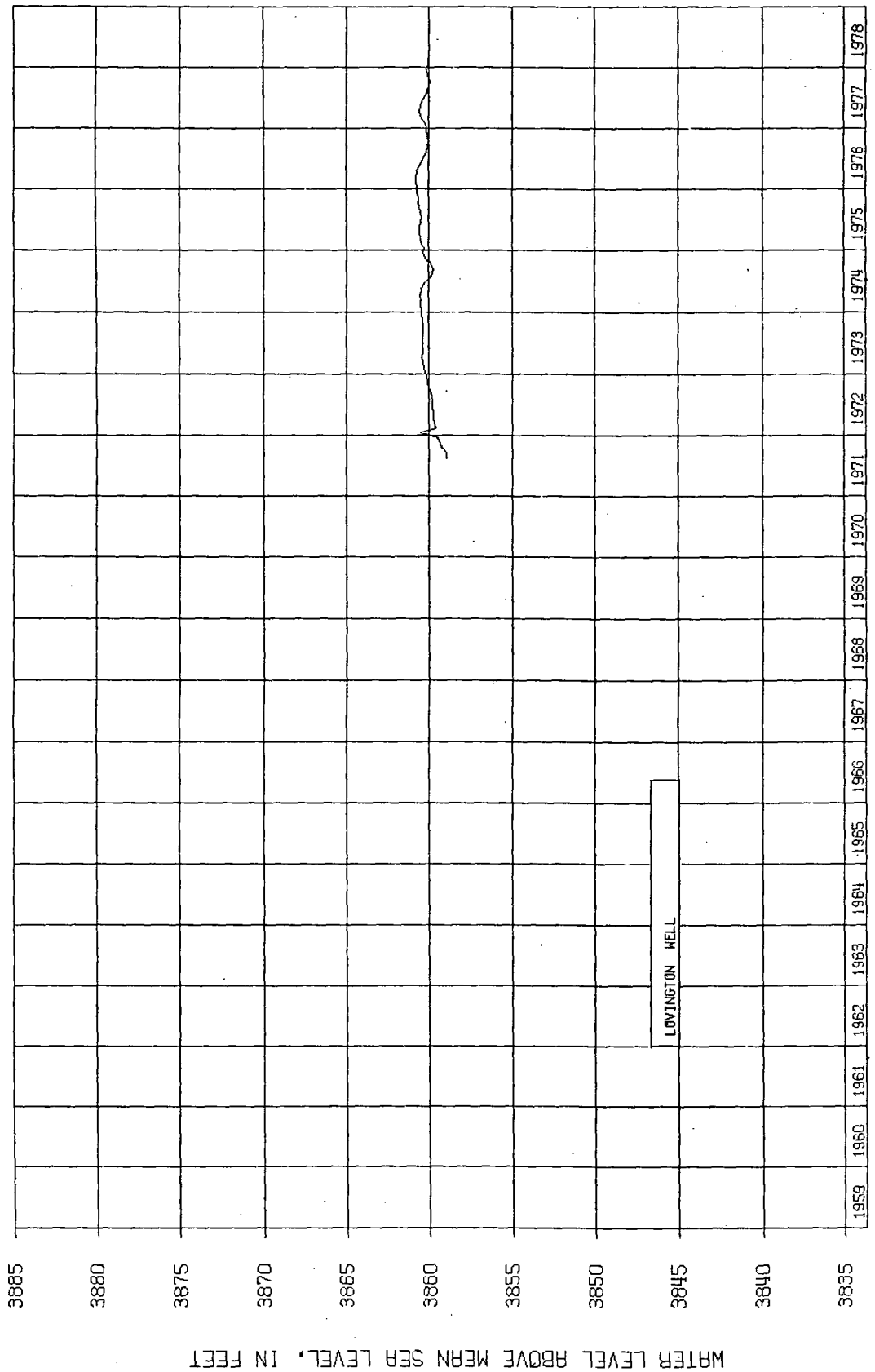


FIGURE 6.--Average-monthly water level in well 16S.36E.04.322, Tatum-Lovington-Hobbs area, Lea County, N. Mex.

TABLE 11.--Daily water levels in well 17S.33E.13.341, Potash Company of America, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Drilled well completed in Ogallala Formation; depth 252 ft.; lsd is 4,124 ft. above msl. Highest water level 146.00 Jan. 21, 1953; lowest water level 169.90 Dec. 19, 27, and 28, 1977; records available 1952-77.

Daily highest water level, in feet below land-surface datum, from recorder graph, 1977

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	167.98	168.21	168.17	168.38	168.70	168.86	169.17	169.18	169.53	169.68	169.67	169.67
2	167.97	168.25	168.32	168.57	168.71	168.86	169.12	169.18	169.51	-	169.64	169.67
3	167.91	168.31	168.32	168.52	168.70	168.91	169.08	169.18	169.49	-	169.64	169.67
4	168.07	168.23	168.40	168.60	168.68	168.93	169.12	169.16	169.47	-	169.48	169.65
5	168.06	168.18	168.42	168.64	168.63	168.93	169.15	169.20	169.53	-	169.40	169.75
6	168.06	168.20	168.38	168.61	168.68	168.92	169.08	169.20	169.53	-	169.35	169.67
7	167.99	168.25	168.39	168.57	168.69	168.89	169.08	169.18	169.55	-	169.40	169.62
8	168.08	168.16	168.31	168.56	168.65	168.89	169.09	169.17	169.51	-	169.38	169.71
9	168.09	168.14	168.35	168.57	168.61	168.95	169.09	169.18	169.60	-	169.57	169.79
10	168.08	168.19	168.26	168.56	168.61	168.97	168.98	169.20	169.59	-	169.52	169.77
11	168.09	168.15	168.51	168.59	168.68	168.94	169.00	169.26	169.52	-	169.51	169.73
12	167.98	168.34	168.44	168.62	168.72	168.94	169.02	169.18	169.48	-	169.40	169.63
13	168.03	168.12	168.39	168.62	168.63	169.00	169.05	169.48	169.60	-	169.45	169.70
14	168.13	168.37	168.46	168.56	168.64	169.01	169.00	169.29	169.59	-	169.38	169.63
15	168.13	168.28	168.60	168.62	168.70	168.93	169.01	169.30	169.52	-	169.42	169.63
16	168.17	168.27	168.45	168.66	168.70	168.97	168.99	169.31	169.56	-	169.47	169.77
17	168.14	168.24	168.35	168.60	168.73	169.01	168.95	169.31	169.57	-	169.49	169.80
18	168.20	168.29	168.54	168.59	168.75	169.04	168.95	169.30	169.59	-	169.43	169.80
19	168.11	168.44	168.61	168.55	168.76	169.07	168.96	169.30	169.58	-	169.47	169.90
20	168.20	168.29	168.49	168.58	168.71	169.07	168.96	169.35	169.52	-	169.53	169.83
21	168.21	168.24	168.65	168.66	168.78	169.11	169.01	169.35	169.58	-	169.63	169.77
22	168.12	168.22	168.53	168.65	168.77	169.09	169.03	169.34	169.58	-	169.58	169.77
23	168.16	168.44	168.37	168.65	168.79	169.07	168.99	169.34	169.57	-	169.60	169.80
24	168.21	168.39	168.45	168.58	168.80	169.07	169.00	169.35	169.58	-	169.63	169.85
25	168.17	168.29	168.44	168.55	168.78	169.05	169.03	169.36	169.59	-	169.62	169.82
26	168.15	168.46	168.48	168.58	168.80	169.00	169.08	169.35	169.59	-	169.54	169.82
27	168.22	168.39	168.40	168.60	168.81	169.07	169.10	169.38	169.59	-	169.54	169.90
28	168.36	168.35	168.47	168.64	168.80	169.10	169.11	169.43	169.62	-	169.70	169.90
29	168.19	-	168.50	168.66	168.85	169.12	169.15	169.39	169.58	-	169.73	169.85
30	168.32	-	168.64	168.67	168.88	169.07	169.14	169.37	169.57	-	169.63	169.87
31	168.19	-	168.47	-	168.92	-	169.11	169.40	-	-	-	169.88

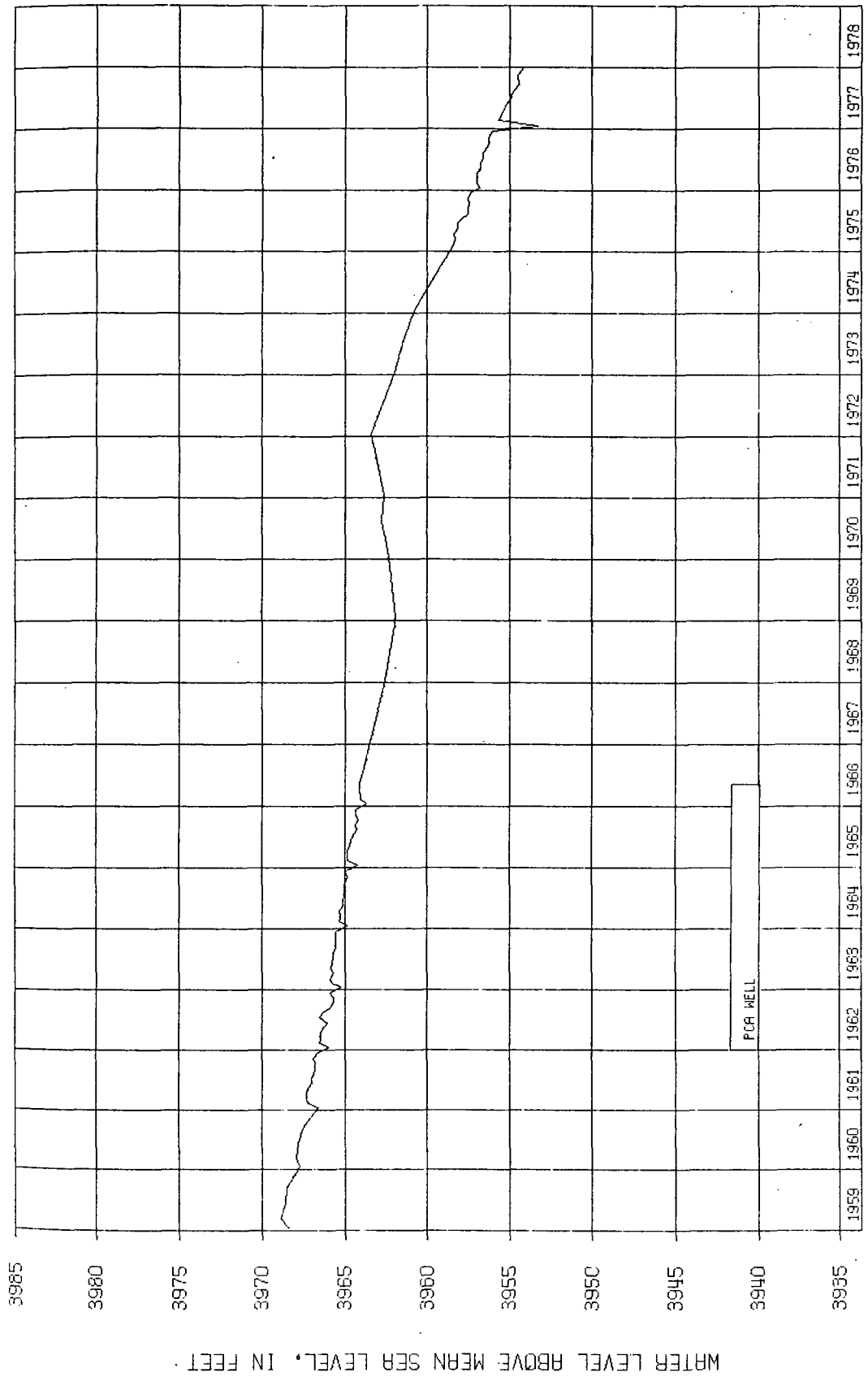


FIGURE 7.--Average-monthly water level in well 17S.33E.13.341, Tatum-Lovington-Hobbs area, Lea County, N. Mex.

BASIC DATA REPORT

New Mexico State Engineer
Santa Fe, New Mexico

Ground-Water Levels in New Mexico, 1978-1980

Including water-level measurements for winter 1981 and water-level-change maps for 1974 to 1981 in selected areas

By

J. D. Hudson - U.S. Geological Survey
and
R. L. Borton - State Engineer Office

With

A bibliography of papers and publications pertaining to ground water in New Mexico published from 1978 to 1980

By
J. S. Jones

1983

TABLE 20.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1979, CHANGE FROM WINTER 1978 TO WINTER 1979, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	79 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
11S 32E 24 411	ROY NELSON	OGLL	-66.74	1-03	+1.40	-65.85	61	-68.44	74	61,65-79
11S 33E 25 442	EPPERSON	OGLL	-33.20	1-03	-	-22.30	76	-34.02	66	53-77,79
12S 31E 23 333	F.E. DICKSON	OGLL	-129.55	1-03	-	-129.20	62	-130.37	55	52-77,79
12S 32E 03 433	UNKNOWN	OGLL	-51.94	1-03	-3.14	-48.80	78	-51.94	79	65-79
12S 33E 28 222	MRS. B.C. ROACH	OGLL	-93.40	1-04	-	-93.40	79	-96.65	77	77,79
12S 34E 11 421	A.D. JONES	OGLL	-33.87	1-03	+0.08	-29.78	50	-33.95	78	49-79
12S 34E 35 322	A.D. JONES	OGLL	-36.65	1-04	-	-28.80	76	-48.77	55	48-77,79
12S 37E 06 131	UNKNOWN	OGLL	-21.43	1-03	-	-20.98	76	-23.20	74	74-77,79
12S 38E 04 132	G.C. COPELAND	OGLL	-40.15	1-03	-	-38.64	77	-43.35	41	41-77,79
13S 32E 25 214	N.R. GROSS	OGLL	-142.02	1-04	-	-142.02	79	-143.34	55	53-60,62-77,79
13S 34E 21 111	LEON RICE	OGLL	-64.60	1-04	-	-62.12	75	-64.77	68	61,65-69,71-77,79
13S 35E 02 111	R.W. DUNCAN	OGLL	-30.12	1-04	+0.75	-26.53	56	-31.50	74	53-72,74-79
13S 35E 19 211	ELKAN	OGLL	-47.19	1-04	-	-44.75	46	-79.43	40	39-50,52-74,76-77,79
13S 35E 35 311	UNKNOWN	OGLL	-45.57	1-04	-0.18	-45.39	77	-46.39	73	73-79
13S 36E 21 133	UNKNOWN	OGLL	-64.21	1-03	-1.20	-59.20	74	-64.21	79	74-79
13S 36E 26 413	IONA MC CLISH	OGLL	-79.17	1-03	+0.67	-42.24	49	-79.84	78	49-79
13S 37E 04 243	GRADY LOWE	OGLL	-35.54	1-03	+0.20	-33.83	43	-39.66	65	40-41,43-47,49-69,71-72,74-79
13S 37E 09 111	A.P. BRECKON	OGLL	-40.48	1-03	-	-36.33	48	-41.49	68	46,48-76,79
13S 37E 28 413	J.B. AND J.D. DOREN	OGLL	-67.24	1-03	-0.43	-31.70	45	-67.24	79	45-79
13S 38E 06 314	J.W. ANDERSON	OGLL	-55.66	1-03	+4.60	-43.02	45	-63.40	72	40-65,67-79
14S 33E 35 133	AMERADA PETROL. CORP.	OGLL	-103.46	1-04	-	-100.39	77	-103.46	79	60-77,79
14S 35E 06 211	UNKNOWN	OGLL	-42.30	1-04	+0.28	-42.30	79	-45.20	75	75-79
14S 35E 23 313	PROPST AND ANDERSON	OGLL	-42.80	1-04	+1.37	-37.56	62	-44.17	78	54-79
14S 35E 25 241	M.J. WIGGINS	OGLL	-61.72	1-04	+7.78	-43.30	50	-69.50	78	49-79
14S 35E 30 134	W.A. ANDERSON	OGLL	-50.50	1-04	+2.36	-43.81	62	-52.86	79	39-69,71-79
14S 35E 33 433	W.A. ANDERSON	OGLL	-45.50	1-04	-0.13	-39.65	52	-46.60	74	36-79
14S 36E 02 113	LESLIE ESTEP	OGLL	-91.06	1-03	-1.16	-48.44	50	-91.06	79	49-79
14S 36E 06 421	RICHARDSON	OGLL	-61.30	1-04	+0.64	-39.03	44	-62.23	77	39-44,46-55,57-79
14S 36E 09 111	KARL CLAYTON	OGLL	-74.97	1-03	+2.68	-38.36	44	-77.65	78	39-79
14S 36E 10 212	KARL CLAYTON	OGLL	-66.64	1-03	+0.27	-47.96	49	-66.91	78	49-79
14S 36E 21 111	MAYO	OGLL	-64.88	1-03	+1.57	-42.69	49	-66.45	78	49-79
14S 36E 32 121	E.T. HOWELL	OGLL	-67.38	1-04	+1.47	-53.58	49	-70.05	71	49-66,68-79
14S 36E 33 131	BELL	OGLL	-81.60	1-03	+0.03	-56.92	50	-81.63	78	49-79
14S 36E 35 111	FREDIA WRIGHT	OGLL	-69.70	1-03	+1.31	-64.80	76	-71.32	77	74-79
14S 37E 05 211	KNOLL	OGLL	-75.05	1-03	+1.83	-31.76	49	-76.91	78	49-79
14S 37E 06 111	E.L. HARBISON	OGLL	-95.83	1-03	-0.36	-37.38	49	-87.98	76	49-62,66,71,76-79
14S 37E 07 311	E.L. HARBISON	OGLL	-80.09	1-03	-0.11	-42.82	49	-80.09	79	49-79
14S 37E 08 113	HARBISON	OGLL	-76.29	1-03	+1.10	-37.93	50	-77.39	78	49-79
14S 37E 13 311	W.T. CARTER	OGLL	-93.84	1-03	-0.37	-35.57	49	-93.84	79	49-79
14S 37E 14 111	GOFF AND JOHNSON	OGLL	-95.92	1-03	-2.75	-36.12	49	-95.92	79	48-49,51-79
14S 37E 16 421	C.A. FORT	OGLL	-76.23	1-03	-1.14	-28.86	43	-76.23	79	39-79
14S 37E 19 111	A.B. HENNINGTON	OGLL	-70.70	1-03	-1.08	-41.15	50	-70.70	79	49-62,64-79
14S 37E 20 412	G.O. DURHAM	OGLL	-78.91	1-03	-0.93	-33.30	45	-79.16	77	39-68,70-79
14S 37E 27 311	J.R. FORT	OGLL	-84.06	1-03	-0.76	-35.13	48	-84.06	79	48-79
14S 37E 31 333	AMANDA MILLER	OGLL	-75.93	1-03	+0.46	-43.59	49	-78.20	77	49-72,74-79
14S 38E 07 113	HEIDEL AND TAYLOR	OGLL	-88.45	1-03	-3.41	-40.73	50	-88.45	79	50-72,74-79
14S 38E 21 311	I.N. COX	OGLL	-60.57	1-04	+2.07	-32.48	49	-62.64	78	49-79
14S 38E 27 313	GUY CAVE	OGLL	-66.78	1-04	-1.41	-38.30	51	-68.94	77	51-53,55-79
14S 38E 31 111	ALDRIDGE	OGLL	-68.92	1-04	+0.40	-37.65	50	-69.32	78	48-74,76-79
15S 32E 06 223	TEXACO	OGLL	-188.40	1-03	-	-188.10	68	-189.13	67	65-77,79
15S 35E 31 422	JOE PRICE	OGLL	-58.60	1-04	-0.39	-54.14	51	-58.60	79	49-58,60-66,68-79
15S 36E 01 311	J.W. SCOTT	OGLL	-73.56	1-03	-0.83	-43.60	49	-74.03	77	49-73,75-79
15S 36E 05 211	J.P. CAUDILL	OGLL	-73.19	1-04	+0.42	-52.73	51	-74.76	75	50-79
15S 36E 14 131	F.O. GRAHAM	OGLL	-64.86	1-04	-0.67	-42.38	45	-64.86	79	41-45,52-79
15S 36E 17 111	B.F. AND WALTER ADAMS	OGLL	-71.62	1-04	+3.47	-44.47	50	-75.09	78	49-59,71-79
15S 36E 20 133	E.B. PARSONS	OGLL	-73.62	1-04	+0.25	-45.25	49	-77.03	76	49-79
15S 36E 28 113	J.R. HALE	OGLL	-76.36	1-04	+0.41	-44.53	47	-77.39	77	46-53,65-79
15S 36E 29 112	G.A. FISHER	OGLL	-74.66	1-04	-	-44.90	43	-74.71	76	46-77,79
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-66.77	1-04	-0.48	-46.14	51	-66.77	79	49-79
15S 36E 34 111	B.J. HARKRIDER	OGLL	-73.75	1-04	+0.17	-44.12	48	-75.74	71	48-58,60-66,68-71,73-79
15S 37E 04 113	W. ANDERSON	OGLL	-70.58	1-03	-0.12	-37.10	50	-70.58	79	50-79
15S 37E 07 111	D.M. CROCKETT	OGLL	-74.75	1-03	-0.98	-46.13	50	-74.75	79	50-73,75-79
15S 37E 19 311	OTTO DEAN	OGLL	-66.39	1-04	+0.24	-41.09	50	-66.63	78	46-50,52,54-64,66-79
15S 37E 20 221	J.E. STEELE	OGLL	-72.62	1-04	+2.42	-35.30	50	-75.04	78	49-79
15S 37E 21 334	R.W. DEAN	OGLL	-76.90	1-04	-	-29.11	44	-76.90	79	36-66,70-79
15S 37E 23 112	NELLIE FORT	OGLL	-57.11	1-04	-1.14	-35.59	51	-57.11	79	51-79
15S 37E 27 111	C.E. RENSHAW	OGLL	-74.27	1-04	+0.59	-29.38	43	-74.66	78	42-44,46-79
15S 37E 29 111	T. WILKS	OGLL	-76.00	1-04	-2.29	-39.08	51	-76.30	79	51-79
15S 37E 31 132	W.R. DEAN	OGLL	-67.42	1-04	-0.89	-35.04	50	-67.42	79	49-79
15S 37E 33 311	YARBRO	OGLL	-75.52	1-04	-2.97	-35.97	50	-75.52	79	50-54,66-79
15S 38E 10 321	LOWE	OGLL	-51.76	1-04	-2.29	-31.84	51	-51.76	79	51-79
15S 38E 22 432	T.R. FORT	OGLL	-47.26	1-04	+0.62	-26.72	42	-47.88	78	39-53,55-79
15S 38E 35 131	WAITS	OGLL	-61.28	1-04	-	-37.61	50	-61.28	79	50-55,60-73,75-77,79
16S 34E 20 233	MARATHON OIL CO.	OGLL	-109.49	1-04	-0.25	-104.50	68	-109.49	79	61,65-79
16S 35E 13 112	C.E. MILBURN	OGLL	-51.83	1-04	+0.07	-43.03	49	-54.56	73	48-79
16S 35E 24 111	T.G. MESTER	OGLL	-50.52	1-04	-0.02	-44.09	51	-55.63	66	51-79
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-45.90	1-04	-3.49	-35.37	49	-45.90	79	49-79
16S 36E 04 322	LOVINGTON REC.	OGLL	-65.71	1-03	+0.18	-65.30	76	-65.89	79	71-79
16S 36E 08 211	H.W. GILLETTE	OGLL	-67.93	1-04	+0.39	-67.93	79	-68.90	77	77-79
16S 36E 11 241	LOVINGTON COUNTRY CLB	OGLL	-70.18	1-04	+0.29	-53.97	48	-84.35	71	48-53,56,58-61,63-64,67-69,71-73,75-79

TABLE 20.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1979, CHANGE FROM WINTER 1978 TO WINTER 1979, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	79 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
16S 36E 23 241	T.M. MONTEITH	OGLL	-59.07	1-04	-0.52	-46.68	55	-62.59	72	54-58,60-63,65-79
16S 37E 01 311	WILKS	OGLL	-81.99	1-03	-0.55	-34.99	50	-81.99	79	50-79
16S 37E 02 211	HARADA	OGLL	-78.26	1-03	-0.98	-38.33	50	-78.26	79	50-79
16S 37E 07 114	BEAL GLEASON	OGLL	-63.36	1-04	-0.72	-38.32	50	-63.36	79	50-79
16S 37E 11 111	M.J. TAYLOR	OGLL	-78.64	1-03	-0.22	-31.93	49	-78.64	79	49-79
16S 37E 25 111	R.C. DAVIS	OGLL	-64.90	1-05	-	-64.90	79	-64.90	79	79
16S 38E 03 333	STATE OF N. MEX.	OGLL	-44.35	1-04	-0.36	-24.60	56	-44.35	79	53-79
16S 38E 27 111	WOODYS ACRES INC.	OGLL	-86.84	1-03	-1.07	-32.89	50	-86.84	79	50-79
16S 38E 30 211	MITCHELL	OGLL	-62.93	1-03	+2.09	-36.82	51	-65.02	78	51-64,67-79
16S 38E 34 131	WOODYS ACRES INC.	OGLL	-102.76	1-03	+1.56	-62.39	59	-104.32	78	52,58-79
16S 39E 29 233	SIMS AND HOLDER	OGLL	-92.08	1-03	-2.66	-54.85	50	-92.08	79	50-58,60-79
17S 33E 13 341	POTASH CO. OF AMERICA	OGLL	-171.04	1-04	-1.22	-146.05	53	-171.04	79	52-79
17S 34E 28 223	SOUTHWEST POTASH	OGLL	-153.48	1-04	-1.05	-133.01	69	-153.48	79	68-79
17S 34E 35 130	STATE OF N. MEX.	OGLL	-124.32	1-04	-1.32	-89.88	53	-124.32	79	40-79
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-39.81	1-04	-0.47	-33.05	49	-39.81	79	47-79
17S 37E 10 211	S.M. REILAND	OGLL	-60.08	1-03	-1.22	-32.87	49	-60.08	79	49-79
17S 37E 12 113	LEE STILES	OGLL	-75.12	1-03	-0.30	-40.69	50	-75.12	79	50-79
17S 37E 34 111	C.G. GOODWIN	OGLL	-60.96	1-03	-0.01	-42.13	57	-69.74	73	57-79
17S 38E 02 311	W.V. LAWRENCE	OGLL	-79.94	1-03	-2.17	-43.65	51	-79.94	79	49-79
17S 38E 07 111	L.R. SEBRINGS	OGLL	-68.36	1-03	-0.37	-35.59	52	-68.36	79	51-79
17S 38E 08 211	J.J. HANDLEY JR.	OGLL	-70.92	1-03	-0.66	-36.46	50	-70.92	79	50-57,59-79
17S 38E 24 133	W.V. LAWRENCE	OGLL	-53.02	1-03	-1.20	-41.30	50	-57.00	70	50-58,60-64,66-79
17S 38E 31 311	G.L. BEENE	OGLL	-52.09	1-03	+2.61	-26.71	49	-54.70	73	48-71,74-79
17S 38E 34 113	W.E. BUSBY	OGLL	-54.62	1-03	-1.12	-24.78	44	-54.62	79	43-79
18S 34E 22 343	CONOCO OIL CO.	OGLL	-110.45	1-04	-	-109.22	67	-110.82	72	65-77,79
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-75.05	1-04	-0.25	-69.46	56	-75.05	79	53-79
18S 36E 27 111	STATE OF N. MEX.	OGLL	-47.30	1-04	-1.60	-38.13	43	-47.30	79	39-79
19S 36E 32 321	F.K. TURNER	ALVM	-26.75	1-04	-	-24.05	76	-27.33	71	71,74-77,79
19S 37E 34 111	UNKNOWN	OGLL	-18.85	1-04	-	-18.85	79	-22.33	74	74-77,79
19S 38E 30 121	UNKNOWN	OGLL	-29.66	1-04	+0.88	-28.53	76	-30.54	76	74-79
19S 38E 34 222	J.O. COURSEY	OGLL	-52.14	1-04	-2.27	-42.27	49	-55.05	72	49-59,61-79

TABLE 21.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1980, CHANGE FROM WINTER 1979 TO WINTER 1980, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	80 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
11S 31E 16 432	R. MARLEY	OGLL	-112.730	2-28	-	-	-	-	-	80
12S 34E 11 421	A.D. JONES	OGLL	-33.38	1-03	+0.49	-29.78	50	-33.95	78	49-80
12S 34E 35 322	A.D. JONES	OGLL	-37.90	1-03	-1.25	-28.80	76	-48.77	55	48-80
12S 37E 06 131	UNKNOWN	OGLL	-21.32	1-03	+0.11	-20.98	76	-23.20	74	74-80
12S 37E 20 341	ALVIN BRECKON	OGLL	-20.17	1-03	-	-20.17	80	-26.63	55	54-76,80
13S 35E 02 111	R.W. DUNCAN	OGLL	-30.58	1-03	-0.46	-26.53	56	-31.50	74	53-72,74-80
13S 35E 35 311	UNKNOWN	OGLL	-45.78	1-03	-0.21	-45.39	77	-46.39	73	73-80
13S 36E 21 133	UNKNOWN	OGLL	-63.11	1-03	+1.10	-59.20	76	-66.21	79	74-80
13S 36E 26 413	IONA MC CLISH	OGLL	-60.99	1-03	-1.82	-42.24	49	-60.99	80	49-76,78-80
13S 37E 04 243	BRADY LOWE	OGLL	-35.58	1-03	-0.04	-33.83	43	-39.66	65	40-41,43-47,49-69,71-72,74-80
13S 37E 28 413	J.B. AND J.C. DOREN	OGLL	-67.07	1-03	+0.17	-31.70	45	-67.24	79	45-80
13S 38E 02 422	M. W. HARRIS	OGLL	-77.59	1-04	-	-66.25	61	-80.14	76	61,66,71,76,80
13S 38E 06 314	J.W. ANDERSON	OGLL	-53.76	1-03	+1.92	-43.02	45	-63.40	72	40-65,67-80
13S 38E 19 311	UNKNOWN	OGLL	-65.13	1-04	-	-65.13	80	-65.13	80	80
13S 38E 23 311	ERNEST LANGSTER	OGLL	-68.93	1-03	-	-68.93	80	-68.93	80	80
14S 35E 06 211	UNKNOWN	OGLL	-41.48	1-03	+0.52	-41.48	80	-45.20	75	75-80
14S 35E 23 313	PROPST AND ANDERSON	OGLL	-42.25	1-03	+0.55	-37.56	62	-44.17	78	54-80
14S 35E 25 241	M.J. WIGGINS	OGLL	-64.12	1-03	-2.40	-43.30	50	-69.50	78	49-80
14S 35E 30 134	W.A. ANDERSON	OGLL	-50.60	1-03	-0.10	-43.81	62	-52.36	78	39-69,71-80
14S 35E 33 433	W.A. ANDERSON	OGLL	-45.72	1-03	-0.22	-39.65	52	-46.60	74	36-80
14S 36E 02 113	LESLIE ESTEP	OGLL	-91.42	1-04	-0.36	-48.44	50	-91.42	80	49-80
14S 36E 06 421	RICHARDSON	OGLL	-59.90	1-03	+1.40	-39.03	44	-62.23	77	39-44,46-55,57-80
14S 36E 09 111	KARL CLAYTON	OGLL	-77.65	1-03	-2.62	-38.36	44	-77.65	78	39-80
14S 36E 10 212	KARL CLAYTON	OGLL	-88.79	1-04	-2.15	-47.98	49	-88.79	80	49-80
14S 36E 21 111	MAYO	OGLL	-65.88	1-03	-1.00	-42.69	49	-66.45	78	49-80
14S 36E 32 121	E.T. HOWELL	OGLL	-66.62	1-03	+0.46	-53.58	49	-70.09	71	49-66,68-80
14S 36E 33 131	BELL	OGLL	-81.33	1-03	+0.27	-56.92	50	-81.63	78	49-80
14S 36E 35 111	FREDIA WRIGHT	OGLL	-68.67	1-04	+1.03	-64.80	76	-71.32	77	74-80
14S 37E 02 121	OTIS PRUETT	OGLL	-67.17	1-04	-	-67.17	80	-71.98	76	71,76,80
14S 37E 05 211	KNCLL	OGLL	-80.06	1-04	-4.98	-31.76	49	-80.06	80	49-80
14S 37E 06 111	E.L. HARBISON	OGLL	-86.25	1-04	-0.42	-37.38	49	-87.98	76	49-62,66,71,76-80
14S 37E 07 311	E.L. HARBISON	OGLL	-63.33	1-04	-3.24	-42.82	49	-63.33	80	49-80
14S 37E 08 113	HARBISON	OGLL	-77.18	1-04	-0.89	-37.93	50	-77.39	78	49-80
14S 37E 13 311	W.T. CARTER	OGLL	-96.22	1-04	-2.38	-35.57	49	-96.22	80	49-80
14S 37E 14 111	GOFF AND JOHNSON	OGLL	-93.30	1-04	+2.62	-36.12	49	-95.92	79	49-49,51-80
14S 37E 16 421	C.A. FORT	OGLL	-76.81	1-04	-0.58	-28.86	43	-76.81	80	39-80
14S 37E 19 111	A.B. MENNINGTON	OGLL	-70.46	1-04	+0.24	-41.15	50	-70.70	79	49-62,64-80
14S 37E 20 412	G.O. DURHAM	OGLL	-80.22	1-04	-1.31	-33.30	45	-80.22	80	39-63,70-80
14S 37E 27 311	J.R. FORT	OGLL	-85.48	1-04	-1.42	-35.13	48	-85.48	80	48-80
14S 37E 31 333	AMANDA MILLER	OGLL	-77.09	1-04	-1.16	-43.59	49	-78.20	77	49-72,74-80
14S 38E 07 113	HEIDEL AND TAYLOR	OGLL	-90.75	1-04	-2.30	-40.73	50	-90.75	80	50-72,74-80
14S 38E 14 111	C. B. SPEARS	OGLL	-63.85	1-04	-	-55.58	61	-63.85	80	61,66,71,76,80
14S 38E 21 311	I.M. COX	OGLL	-64.64	1-04	-4.07	-32.48	49	-64.64	80	49-80
14S 38E 27 313	GUY CAVE	OGLL	-68.67	1-03	-1.89	-38.30	51	-69.94	77	51-53,55-80
14S 38E 31 111	ALDRIDGE	OGLL	-68.85	1-04	+0.07	-37.45	50	-69.32	78	48-74,76-80
15S 35E 31 422	JOE PRICE	OGLL	-58.49	1-04	+0.11	-54.14	51	-58.60	79	49-58,60-66,69-80
15S 36E 01 311	J.W. SCOTT	OGLL	-73.12	1-04	+0.44	-43.60	49	-74.03	77	49-73,75-80
15S 36E 05 211	J.P. CAUDILL	OGLL	-73.37	1-03	-0.18	-52.73	51	-74.76	75	50-80
15S 36E 14 131	F.O. GRAHAM	OGLL	-65.61	1-03	-0.75	-42.38	45	-65.61	80	41-45,52-80
15S 36E 20 133	E.B. PARSONS	OGLL	-73.67	1-03	-0.05	-45.25	49	-77.03	76	49-80
15S 36E 28 113	J.R. HALE	OGLL	-76.43	1-03	-0.07	-44.53	47	-77.39	77	46-63,65-80
15S 36E 29 112	G.A. FISHER	OGLL	-74.77	1-04	-0.09	-44.90	48	-74.77	80	48-80
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-67.08	1-04	-0.31	-46.14	51	-67.08	80	49-80
15S 36E 34 111	B.J. HARKRIDER	OGLL	-75.19	1-04	-1.44	-44.12	48	-75.74	71	48-58,60-66,68-71,73-80
15S 37E 04 113	W. ANDERSON	OGLL	-72.85	1-04	-2.27	-37.10	50	-72.85	80	50-80
15S 37E 07 111	D.M. CROCKETT	OGLL	-74.95	1-04	-0.20	-46.13	50	-74.95	80	50-73,75-80
15S 37E 19 311	OTTO DEAN	OGLL	-66.90	1-04	-0.51	-41.09	50	-66.90	80	48-50,52,54-64,66-80
15S 37E 20 221	J.E. STEELE	OGLL	-73.90	1-04	-1.18	-35.30	50	-75.04	78	49-80
15S 37E 23 112	NELLIE FORT	OGLL	-59.58	1-04	-2.47	-35.59	51	-59.58	80	51-80
15S 37E 27 111	C.E. RENSHAW	OGLL	-76.82	1-04	-2.55	-29.38	43	-76.82	80	42-44,46-80
15S 37E 29 111	T. WILKS	OGLL	-73.36	1-04	+2.64	-39.08	51	-76.00	79	51-80
15S 37E 31 132	W.R. DEAN	OGLL	-68.50	1-04	-1.08	-35.04	50	-68.50	80	49-80
15S 37E 33 311	YARBRO	OGLL	-76.80	1-04	-1.28	-35.97	50	-76.80	80	50-64,66-80
15S 38E 10 321	LOWE	OGLL	-54.02	1-04	-2.26	-31.86	51	-54.02	80	51-80
15S 38E 22 432	T.R. FORT	OGLL	-48.89	1-04	-1.63	-28.72	42	-48.89	80	39-53,55-80
15S 38E 35 131	WAITS	OGLL	-63.33	1-04	-2.05	-37.61	50	-63.33	80	50-58,60-73,75-80
16S 34E 10 414	UNKNOWN	OGLL	-81.91	1-04	-	-81.91	80	-81.91	80	80
16S 34E 20 233	MARATHON OIL CO.	OGLL	-109.84	1-04	-0.35	-104.80	69	-109.84	80	61,65-80
16S 35E 09 112	UNKNOWN	OGLL	-51.52	1-04	-	-51.52	80	-51.52	80	80
16S 35E 13 112	C.E. MILBURN	OGLL	-52.04	1-04	-0.21	-43.03	49	-54.56	73	48-80
16S 35E 24 111	T.G. HESTER	OGLL	-53.18	1-04	-2.66	-44.09	51	-55.63	66	51-80
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-48.10	1-04	-2.20	-35.37	49	-48.10	80	49-80
16S 36E 04 322	LOVINGTON REC.	OGLL	-65.62	1-04	+0.09	-65.30	76	-65.89	78	71-80
16S 36E 05 124	I.D. PHILLIPS	OGLL	-64.40	1-04	-	-50.09	45	-64.44	71	43-71,73-78,80
16S 36E 11 241	LOVINGTON COUNTRY CLB	OGLL	-70.57	1-04	-0.39	-53.97	48	-84.85	71	48-53,56,58-61,63-64,67-69,71-73,75-80
16S 36E 13 123	UNKNOWN	OGLL	-56.38	1-04	-	-56.38	80	-56.38	80	80
16S 36E 23 241	T.H. MONTEITH	OGLL	-61.94	1-04	-2.87	-46.68	55	-62.59	72	54-58,60-63,65-80
16S 37E 01 311	WILKS	OGLL	-52.12	1-04	-0.13	-34.99	50	-82.12	80	50-80
16S 37E 02 211	HARADA	OGLL	-78.25	1-04	+0.01	-38.33	50	-78.26	79	50-80
16S 37E 07 114	BEAL GLEASON	OGLL	-63.12	1-04	+0.24	-33.32	50	-63.36	79	50-80

D nearby well pumped recently

TABLE 21.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1980, CHANGE FROM WINTER 1979 TO WINTER 1980, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	80 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
16S 37E 11 111	M.J. TAYLOR	OGLL	-75.12	1-04	+3.52	-31.93	49	-78.64	79	49-80
16S 37E 14 211	GREEN	OGLL	-75.08	1-04	-	-39.73	50	-75.08	80	50-77,80
16S 37E 25 111	R.C. DAVIS	OGLL	-65.72	1-04	-0.82	-64.90	79	-65.72	80	79-80
16S 38E 03 333	STATE OF N. MEX.	OGLL	-44.10	1-04	+0.25	-24.60	56	-44.35	79	53-80
16S 38E 05 133	UNKNOWN	OGLL	-51.27	1-04	-	-36.91	61	-51.27	80	61,66,80
16S 38E 18 121	UNKNOWN	OGLL	-55.13	1-06	-	-55.13	80	-55.13	80	80
16S 38E 27 111	WOODYS ACRES INC.	OGLL	-88.24	1-04	-1.40	-32.89	50	-88.24	80	50-80
16S 38E 30 211	MITCHELL	OGLL	-66.34	1-04	-3.41	-36.82	51	-66.34	80	51-66,67-80
16S 38E 34 131	WOODYS ACRES INC.	OGLL	-104.42	1-04	-1.66	-62.39	59	-104.42	80	52,58-80
16S 39E 07 331	W. V. LAWRENCE	OGLL	-65.43	1-04	-	-51.76	66	-65.43	80	66,71,76,80
16S 39E 17 344	W. P. COOKE	OGLL	-87.89	1-04	-	-67.90	61	-87.89	80	61,66,71,76,80
16S 39E 29 233	SIMS AND HOLDER	OGLL	-94.49	1-04	-2.41	-54.85	50	-94.49	80	50-58,60-80
17S 33E 13 341	POTASH CO. OF AMERICA	OGLL	-172.80	1-03	-1.76	-146.05	53	-172.80	80	52-80
17S 34E 28 223	SOUTHWEST POTASH	OGLL	-154.61	1-03	-1.13	-133.01	69	-154.61	80	68-80
17S 34E 35 130	STATE OF N. MEX.	OGLL	-125.02	1-03	-0.70	-89.88	53	-125.02	80	40-80
17S 36E 27 131	DOROTHY SCHARBAUER	OGLL	-40.04	1-03	-0.23	-33.05	49	-40.04	80	47-80
17S 37E 05 133	UNKNOWN	OGLL	-51.77	1-04	-	-51.77	80	-51.77	80	80
17S 37E 10 211	S.M. REILAND	OGLL	-63.17	1-03	-3.09	-32.87	49	-63.17	80	49-80
17S 37E 12 113	LEE STILES	OGLL	-76.28	1-03	-1.16	-40.69	50	-76.28	80	50-80
17S 37E 24 212	UNKNOWN	OGLL	-57.60	1-03	-	-57.60	80	-57.60	80	80
17S 37E 34 111	C.G. GOODWIN	OGLL	-59.98	1-03	+0.98	-42.13	57	-69.74	73	57-80
17S 38E 01 232	UNKNOWN	OGLL	-108.65	1-04	-	-108.65	80	-108.65	80	80
17S 38E 02 311	W.V. LAWRENCE	OGLL	-82.62	1-03	-2.68	-43.65	51	-82.62	80	49-80
17S 38E 07 111	L.R. SEBRINGS	OGLL	-69.84	1-03	-1.48	-35.59	52	-69.84	80	51-80
17S 38E 08 211	J.J. HANDLEY JR.	OGLL	-73.30	1-03	-2.38	-36.46	50	-73.30	80	50-57,59-80
17S 38E 15 313	W. V. LAWRENCE	OGLL	-55.04	1-04	-	-44.14	61	-55.04	80	61,66,71,76,80
17S 38E 24 332	UNKNOWN	OGLL	-58.40	1-04	-	-58.40	80	-58.40	80	80
17S 38E 31 311	G.L. BEENE	OGLL	-52.37	1-03	-0.28	-26.71	49	-54.70	78	48-71,74-80
17S 38E 34 113	M.E. BUSBY	OGLL	-55.21	1-03	-0.59	-24.78	44	-55.21	80	43-80
17S 38E 36 212	KING ACRES	OGLL	-72.02	1-03	-	-59.60	50	-72.19	54	50-62,80
17S 39E 30 232	UNKNOWN	OGLL	-80.79	1-04	-	-80.79	80	-80.79	80	80
18S 34E 22 343	CONOCO OIL CO.	OGLL	-110.58	1-03	-0.13	-109.22	67	-110.82	72	65-80
18S 35E 17 144	INT MIN AND CHEM CORP	OGLL	-75.67	1-03	-0.62	-69.46	56	-75.67	80	53-80
18S 36E 27 111	STATE OF N. MEX.	OGLL	-47.96	1-03	-0.66	-38.13	43	-47.96	80	39-80
18S 38E 03 313	G. MOONEY	OGLL	-64.41	1-03	-	-29.68	52	-64.41	80	52-78,80
18S 39E 06 444	UNKNOWN	OGLL	-94.50	1-03	-	-94.50	80	-94.50	80	80
19S 36E 19 113	W.M. EVANS	YLPL	-17.94	1-03	-	-15.06	47	-17.94	80	39-78,80
19S 38E 34 222	J.O. COURSEY	OGLL	-51.87	1-03	+0.27	-42.27	49	-55.05	72	49-59,61-80
20S 39E 19 122	EARL KORNEGAY	OGLL	-45.10	1-03	-	-43.66	76	-57.58	67	64-72,74-76,80

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
09S 32E 11 244	LEWIS COOPER ESTATE	CHNL	-105.55D	2-06	-	-	-	-	-	81
09S 32E 21 212	LEWIS COOPER EST.	CHNL	-43.88	2-06	-6.10	-37.78	76	-43.88	81	30,71,76,81
09S 32E 24 121	LEWIS COOPER EST.	CHNL	-70.13	2-06	+0.45	-70.13	81	-70.58	76	57,70-76,81
09S 32E 25 113	J. MCGUFFIN	CHNL	-153.94	2-06	+5.94	-153.94	81	-159.88	76	57,70-76,81
09S 32E 31 412	CAPROCK RANCH	CHNL	-208.43	2-10	-	-208.43	81	-208.43	81	70-76,81
09S 32E 32 412	CAPROCK RANCH	CHNL	-183.56	2-10	-0.34	-183.22	76	-183.56	81	70-76,81
09S 33E 08 444	BUDDY LYNN MEDLIN	CRCS	-68.06	2-06	-	-54.15	71	-68.06	81	57,70-71,81
09S 33E 13 442	TRAPP	OGLL	-49.10	1-30	-	-49.10	81	-49.10	81	76,81
09S 33E 14 442	UNKNOWN	OGLL	-42.76	1-30	-	-42.76	81	-42.76	81	54,70-76,81
09S 33E 17 113	LEWIS COOPER EST.	CRCS	-70.12B	2-06	-	-	-	-	-	70-71,81
09S 33E 21 441	UNKNOWN	CHNL	-185.29	2-05	-	-185.29	81	-187.66	71	71,76,81
09S 33E 23 324	TRAPP	OGLL	-27.83	2-10	-	-27.83	81	-30.28	71	30,54,71,76,81
09S 33E 23 342	TRAPP	CHNL	-201.89	1-30	-	-201.89	81	-201.89	81	70-76,81
09S 33E 25 131	TRAPP	CRCS	-148.11	2-05	-	-148.11	81	-148.71	77	77,81
09S 33E 34 144	UNKNOWN	CRCS	-67.30	2-10	-	-67.30	81	-67.30	81	70-76,81
09S 33E 36 113	UNKNOWN	CRCS	-45.70	1-30	-	-45.70	81	-49.48	77	77,81
09S 33E 36 244	UNKNOWN	CRCS	-54.18	1-30	-	-54.18	81	-55.99	71	70-76,81
09S 34E 01 141	VADA PRUITT	CHNL	-160.54	1-30	-	-160.54	81	-160.54	81	81
09S 34E 15 143	MATTIE PRICE	CHNL	-196.30	2-12	-	-196.30	81	-196.30	81	70-76,81
09S 34E 17 342	CHARLES PRUITT	OGLL	-48.97	1-30	-	-48.97	81	-48.97	81	54,70-76,81
09S 34E 21 111	CHARLES PRUITT	OGLL	-34.81	1-30	-	-34.81	81	-35.90	71	57,70-76,81
09S 34E 26 213	WILLIAMSON	OGLL	-70.27	1-30	-	-70.27	81	-70.27	81	54,70-76,81
09S 34E 27 112	A. F. WILLIAMSON	OGLL	-46.76	1-30	-	-46.76	81	-46.76	81	54,70-76,81
09S 34E 28 113	A. F. WILLIAMSON	OGLL	-39.80	2-05	-	-39.80	81	-39.80	81	91
09S 34E 28 411	UNKNOWN	OGLL	-38.55	2-05	-	-38.55	81	-38.55	81	81
09S 35E 01 122	UNKNOWN	CRCS	-129.20	1-29	-	-129.19	80	-129.20	81	80-81
09S 35E 17 444	MRS. S.E. ANDERSON	CHNL	-152.00A	1-29	-	-	-	-	-	76,81
09S 35E 18 311	UNKNOWN	CHNL	-151.74	1-29	-	-151.74	81	-151.74	81	70,76,81
09S 35E 20 133	UNKNOWN	OGLL	-149.19	1-29	-	-149.19	81	-155.24	71	70-76,81
09S 35E 35 113	C.M. KINSOLVING	OGLL	-138.25	1-29	-	-138.25	81	-138.25	81	76,81
09S 36E 05 211	O. K. LOVEJOY	CRCS	-177.58	1-29	-	-176.53	80	-177.58	81	80-81
09S 36E 12 113	BILL BALDRIDGE	CRCS	-141.15B	2-05	-	-	-	-	-	76,81
09S 36E 12 444	BILL BALDRIDGE	CRCS	-126.37	2-03	-	-126.37	81	-141.12	71	71,76,81
09S 36E 27 113	BOBBY LEWIS	CRCS	-132.29	2-05	-	-132.29	81	-132.29	81	70-76,81
09S 36E 27 431	BOBBY LEWIS	CRCS	-124.89	2-05	-	-122.42	71	-124.89	81	71,76,81
09S 36E 29 441	BOB LEWIS	CRCS	-140.55	2-05	-	-140.55	81	-140.55	81	81
09S 37E 18 311	FRED BALDRIDGE	CRCS	-123.44	2-05	-	-123.44	81	-123.44	81	70,76,81
09S 37E 26 143	MACK GANDY	OGLL	-111.99	2-20	-	-111.99	81	-111.99	81	76,81
09S 37E 26 224	MACK GANDY	CRCS	-159.38	2-04	-	-159.38	81	-178.90	71	54,71,76,81
09S 37E 34 313	RAYMOND LEWIS	OGLL	-152.55	2-04	-	-152.55	81	-152.55	81	76,81
09S 37E 35 124	RAYMOND M. LEWIS	OGLL	-124.14	2-04	-	-124.14	81	-131.79	71	70-76,81
09S 38E 07 234	UNKNOWN	CHNL	-229.12	2-04	-	-229.12	81	-229.12	81	81
09S 38E 19 111	UNKNOWN	OGLL	-176.55	2-04	-	-176.55	81	-176.55	81	81
09S 38E 29 222	MARTIN GANDY	OGLL	-157.27	2-04	-	-157.27	81	-157.27	81	54,81
09S 38E 31 342	STANDIFER	OGLL	-151.71	2-04	-	-151.71	81	-151.71	81	81
09S 38E 33 143	UNKNOWN	OGLL	-157.90	2-04	-	-157.90	81	-157.96	71	71,76,81
10S 32E 14 111	J. J. LANE	OGLL	-53.89	2-11	-	-53.89	81	-53.89	81	57,70-71,81
10S 32E 15 122	CAPROCK RANCH	OGLL	-58.33	2-11	+0.49	-58.33	81	-58.82	76	54,70-76,81
10S 32E 17 123	CAPROCK RANCH	OGLL	-52.15	2-10	-	-52.15	81	-52.15	81	54,70-76,81
10S 32E 18 431	CAPROCK RANCH	OGLL	-39.12B	2-10	-4.10	-35.02	76	-35.02	76	71,76,81
10S 32E 20 342	CAPROCK RANCH	OGLL	-63.48	2-11	-0.18	-63.30	76	-63.48	81	70-76,81
10S 32E 25 314	J. J. LANE	OGLL	-42.94	2-11	-	-42.94	81	-42.94	81	30,70-76,81
10S 32E 29 113	CAPROCK RANCH	OGLL	-63.72	2-11	+0.15	-63.72	81	-63.87	76	71,76,81
10S 32E 33 324	CAPROCK RANCH	OGLL	-54.44	2-11	+0.29	-54.44	81	-54.73	76	70-76,81
10S 33E 05 421	LANE RANCH	OGLL	-101.22B	2-10	-29.70	-71.52	76	-71.52	76	70-76,81
10S 33E 12 333	LANE RANCH	OGLL	-40.71	2-10	-	-40.71	81	-40.71	81	70-76,81
10S 33E 14 311	MIDWEST OIL CORP.	CHNL	-35.03	2-10	-	-35.03	81	-35.03	81	76,81
10S 33E 16 212	LANE RANCH	OGLL	-33.72	2-10	-	-33.72	81	-33.72	81	57,70-76,81
10S 33E 18 332	LANE RANCH	OGLL	-25.42	2-25	-2.52	-22.90	76	-25.42	81	30,54,57,70-76,81
10S 33E 20 443	LANE RANCH	OGLL	-25.13	2-25	-0.36	-24.77	76	-25.13	81	70-76,81
10S 33E 22 123	LANE RANCH	OGLL	-34.43	2-25	-0.30	-34.13	76	-34.49	71	71,76,81
10S 33E 22 322	LANE RANCH	OGLL	-28.41	2-25	-	-28.41	81	-28.41	81	70,76,81
10S 33E 23 121	KARL JOHNSON	OGLL	-35.40	2-25	-	-35.40	81	-35.40	81	76,81
10S 33E 23 411	CARL JOHNSON	OGLL	-32.32	2-25	-	-32.32	81	-32.32	81	30,70-76,81
10S 33E 24 123	LA. LAND AND EXPL. CO.	OGLL	-22.99	2-25	-	-22.99	71	-22.99	71	71,76,81
10S 33E 33 121	CARL JOHNSON	OGLL	-28.07B	2-25	+0.13	-28.20	76	-28.20	76	30,71,76,81
10S 34E 20 433	CARL JOHNSON	CRCS	-34.11D	2-25	-	-	-	-	-	70-76,81
10S 34E 27 142	CARL JOHNSON	CRCS	-52.30	2-12	-	-52.30	81	-52.30	81	30,32,70-76,81
10S 35E 12 312	MAC GANDY	CRCS	-103.58D	2-12	-	-	-	-	-	71,76,81
10S 35E 12 312	MAC GANDY	CRCS	-92.16	2-12	-	-92.01	72	-92.16	81	30,54,72,76,81
10S 35E 12 444	MATTIE PRICE	CRCS	-87.32	2-12	-	-87.32	81	-87.32	81	54,70-76,81
10S 35E 15 322	PRICE RANCH	CRCS	-109.37	2-12	-	-109.37	81	-109.37	81	70-76,81
10S 35E 16 134	MATTIE PRICE	CRCS	-120.99B	2-12	-	-	-	-	-	54,70-76,81
10S 35E 19 434	UNKNOWN	CRCS	-43.32	2-12	-	-38.81	71	-43.32	81	70-76,81
10S 35E 20 341	UNKNOWN	CRCS	-121.54A	2-12	-	-	-	-	-	70-76,81
10S 35E 25 433	UNKNOWN	OGLL	-55.71	2-12	-	-55.71	81	-55.71	81	58,81
10S 35E 26 343	MATTIE PRICE	OGLL	-55.97	2-12	-	-55.97	81	-55.97	81	81
10S 36E 13 224	HARDING BURRIS	CRCS	-109.38	2-20	-	-109.17	71	-109.38	81	70-76,81
10S 36E 17 344	HARDING BURRIS	CRCS	-80.65	2-25	-	-80.65	81	-80.65	81	76,81
10S 36E 24 413	HALO RANCH	OGLL	-92.48	2-24	-	-92.48	81	-92.48	81	58,81

A well being pumped
B well pumped recently
D nearby well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
10S 36E 30 242	UNKNOWN	OGLL	-86.59	2-25	-	-86.59	81	-86.59	81	70-76,81
10S 36E 33 333	UNKNOWN	OGLL	-76.87A	2-25	-	-79.56	58	-79.56	58	58,81
10S 36E 33 333	UNKNOWN	OGLL	-75.91	2-25	-	-75.91	81	-75.91	81	81
10S 36E 36 112	HARDING BURRIS	OGLL	-88.16A	2-24	-	-	-	-	-	76,81
10S 37E 01 112	MIKE HORTON	OGLL	-139.92	2-20	-	-139.92	81	-139.92	81	54,70-71,81
10S 37E 01 112	MIKE HORTON	OGLL	-140.25	2-20	-	-140.25	81	-141.25	71	71,76,81
10S 37E 03 222	SANDY OILFIELD SERVICES	OGLL	-136.27	2-24	-	-136.27	81	-136.27	81	81
10S 37E 05 313	MIKE HORTON	OGLL	-135.08A	2-20	-	-	-	-	-	71,76,81
10S 37E 08 411	HARDING BURRIS	OGLL	-133.54	2-20	-	-133.54	81	-133.54	81	76,81
10S 37E 09 441	HARDING BURRIS	OGLL	-131.55	2-20	-	-131.55	81	-131.55	81	54,71,76,81
10S 37E 11 421	HARDING BURRIS	OGLL	-131.46	2-20	-	-131.46	81	-131.46	81	54,70-76,81
10S 37E 13 314	HALO CATTLE CO.	OGLL	-131.94	2-20	-	-131.94	81	-131.94	81	81
10S 37E 20 333	HARDING BURRIS	OGLL	-104.62	2-20	-	-104.62	81	-104.62	81	70-76,81
10S 37E 21 413	HARDING BURRIS	OGLL	-112.67	2-20	-	-112.67	81	-112.67	81	76,81
10S 37E 22 123	HARDING BURRIS	OGLL	-121.43	2-20	-	-121.43	81	-121.43	81	54,70-76,81
10S 37E 33 242	HARDING BURRIS	OGLL	-105.94A	2-24	-	-	-	-	-	54,76,81
10S 38E 04 343	FRANK RATLIFF	OGLL	-141.33	2-13	-	-141.33	81	-141.33	81	70-76,81
10S 38E 05 334	FRANK RATLIFF	OGLL	-140.87	2-13	-	-140.87	81	-140.87	81	70,76,81
10S 38E 06 332	FRANK RATLIFF	OGLL	-134.40	2-13	-	-134.40	81	-134.40	81	76,81
10S 38E 07 332	FRANK RATLIFF	OGLL	-132.37	2-24	-	-132.37	81	-132.37	81	81
10S 38E 08 343	FRANK RATLIFF	OGLL	-139.55	2-24	-	-139.55	81	-139.55	81	81
10S 38E 17 423	OWENS BROS.	OGLL	-144.42	2-24	-	-144.42	81	-144.42	81	81
10S 38E 18 231	FRANK RATLIFF	OGLL	-136.00	2-24	-	-136.00	81	-136.00	81	81
10S 38E 20 333	OWEN BROS.	OGLL	-129.00	2-13	-	-129.00	81	-129.00	81	76,81
10S 38E 21 000	OWENS BROS.	OGLL	-139.90	2-24	-	-139.90	81	-139.90	81	81
10S 38E 21 131	OWENS BROS.	OGLL	-150.30	2-24	-	-150.30	81	-150.30	81	81
10S 38E 29 133	JOE BESSERA	OGLL	-130.69	2-13	-	-130.69	81	-130.69	81	70-76,81
10S 38E 29 333	OWENS BROS.	OGLL	-134.05	2-13	-	-134.05	81	-134.05	81	81
10S 38E 32 233	DAN FIELDS	OGLL	-126.68	2-13	-	-126.68	81	-126.68	81	70-71,81
11S 32E 03 313	H. J. RUSHING	OGLL	-60.30	2-17	-	-60.30	81	-60.30	81	71,76,81
11S 32E 06 333	UNKNOWN	OGLL	-31.32	2-10	-	-31.32	81	-36.63	61	61,66,71,76,81
11S 32E 08 222	MRS. LORETTA PROCTOR	OGLL	-43.11	2-17	-	-43.11	81	-43.11	81	61,71,76,81
11S 32E 10 312	UNKNOWN	OGLL	-57.74	2-11	-	-57.74	81	-57.74	81	81
11S 32E 12 233	CAPROCK RANCH, INC.	OGLL	-53.45	2-11	-	-52.98	71	-53.45	81	66,71,76,81
11S 32E 13 233	CAPROCK RANCH, INC.	OGLL	-57.59	2-11	-	-55.00	61	-57.59	81	61,66,71,76,81
11S 32E 14 333	C. W. ROBINSON	OGLL	-63.44	2-11	-	-63.44	81	-63.57	71	61,66,71,76,81
11S 32E 16 224	MARGARET RUDD	OGLL	-62.40	2-11	-	-62.40	81	-62.40	81	61,66,71,76,81
11S 32E 19 142	MRS. LORETTA PROCTOR	OGLL	-69.66	2-10	-	-69.66	81	-69.66	81	61,71,76,81
11S 32E 21 134	ROY P. FORT	OGLL	-29.63D	2-11	-	-31.65	71	-33.72	61	61,66,71,76,81
11S 32E 22 134	TOBE FOSTER	OGLL	-46.11	2-11	-	-46.11	81	-46.32	61	61,76,81
11S 32E 24 113	TEXACO	OGLL	-60.67	2-11	-	-60.67	81	-60.67	81	77-78,81
11S 32E 24 113	PAUL HAMILTON	OGLL	-61.38	4-20	-	-61.38	81	-61.38	81	78-79,81
11S 32E 24 411	ROY NELSON	OGLL	-64.30	1-06	+3.6A	-64.30	81	-68.44	74	61,65-79,81
11S 32E 25 411	JOHN H. MOORE JR.	OGLL	-64.83	2-11	-	-59.82	61	-64.83	81	61,66,71,76,81
11S 32E 26 243	UNKNOWN	OGLL	-51.45	2-11	-	-51.45	81	-51.45	81	77-78,81
11S 32E 27 424	TOBE FOSTER	OGLL	-44.95	2-11	-	-44.95	81	-44.95	81	61,66,71,76,81
11S 32E 28 211	ROY FORT	OGLL	-40.66	2-12	-	-40.66	81	-41.24	71	71,76,81
11S 32E 30 242	ROY FORT	OGLL	-44.64	2-11	-	-44.64	81	-46.54	61	61,66,71,76,81
11S 32E 32 414	R.P. (BUDDY) FORT	OGLL	-29.30	2-11	-	-29.30	81	-29.30	81	71,76,81
11S 32E 36 144	UNKNOWN	OGLL	-71.35D	2-11	-	-69.89	71	-69.89	71	71,81
11S 33E 01 212	EDWARD & JOEL KLEIN	OGLL	-29.55	2-13	-	-25.82	61	-29.55	81	61,66,71,76,81
11S 33E 02 331	UNKNOWN	OGLL	-43.53	2-13	-	-43.53	81	-43.53	81	81
11S 33E 02 431	UNKNOWN	OGLL	-47.49	2-13	-	-47.49	81	-47.49	81	81
11S 33E 06 231	HENRY A. CROWLEY	OGLL	-48.58	2-17	-0.13	-48.34	71	-57.14	61	61,66,71,76,81
11S 33E 08 432	UNKNOWN	OGLL	-46.30	2-13	-	-46.30	81	-46.30	81	81
11S 33E 09 142	LYMAN GRAHAM	OGLL	-47.62A	2-13	-	-	-	-	-	61,66,71,76,81
11S 33E 09 444	HUGH GRAHAM	OGLL	-45.84	2-13	-	-45.84	81	-45.84	81	61,66-67,71,76,81
11S 33E 10 143	UNKNOWN	OGLL	-40.94	2-13	-	-40.94	81	-40.94	81	81
11S 33E 12 234	DUTTERER'S ENTERPRIZES	OGLL	-28.42	2-13	-	-24.80	66	-28.42	81	61,66,71,76,81
11S 33E 12 313	DUTTERER'S ENTERPRIZES	OGLL	-46.46	2-13	-	-32.69	61	-46.46	81	61,66,71,81
11S 33E 13 344	J. D. GUY	OGLL	-31.62	2-13	-	-27.12	71	-31.62	81	61,66,71,76,81
11S 33E 15 431	DUTTERER'S ENTERPRIZES	OGLL	-45.53	2-13	-	-36.03	71	-45.53	81	71,76,81
11S 33E 17 321	LYMAN GRAHAM	OGLL	-52.98	2-12	-	-52.98	81	-52.98	81	61,71,76,81
11S 33E 19 221	W. F. MATHERS	OGLL	-58.16	2-17	-	-56.23	61	-58.16	81	61,66,71,76,78,81
11S 33E 19 312	W. F. MATHERS	OGLL	-67.82	2-12	-	-66.80	61	-68.96	66	61,66,71,76,81
11S 33E 21 114	DUTTERER'S ENTERPRIZES	OGLL	-52.37	2-12	-	-50.24	61	-52.37	81	61,66,71,76,81
11S 33E 22 414	H. T. DALLAS	OGLL	-35.75	2-17	-	-35.18	71	-36.64	66	61,66,71,76,81
11S 33E 23 431	ROY EPPERSON	OGLL	-31.50	2-13	-	-31.50	81	-31.50	81	66,71,76,81
11S 33E 24 344	ROY EPPERSON	OGLL	-34.70	2-13	-	-34.18	71	-34.70	81	66,71,76,81
11S 33E 25 311	ROY EPPERSON	OGLL	-37.76	2-17	-	-36.82	61	-39.03	66	61,66,71,76,81
11S 33E 25 442	ROY EPPERSON	OGLL	-33.74	1-06	+0.24	-20.81	77	-34.02	66	53-79,81
11S 33E 28 114	UNKNOWN	OGLL	-53.40	2-12	-	-53.40	81	-53.53	66	66,71,76,81
11S 33E 29 133	WALTER ANDERSON	OGLL	-64.84	2-17	-	-64.84	81	-64.84	81	76,81
11S 33E 30 133	W. F. MATHERS	OGLL	-68.82	2-12	-	-67.93	71	-75.82	77	61,66,71,76-77,81
11S 33E 31 243	JOHN H. MOORE	OGLL	-62.94	2-17	-	-62.94	81	-64.98	61	61,66,71,76,81
11S 33E 33 113	RAY ATLBURN	OGLL	-58.74	2-12	-	-47.41	61	-59.82	66	61,66,71,76,81
11S 33E 33 433	R. L. ANDERSON	OGLL	-56.02	2-13	-	-54.37	61	-56.02	81	61,66,71,76,81
11S 33E 34 122	R. L. ANDERSON	OGLL	-44.62	2-12	-	-44.62	81	-45.07	66	66,71,81
11S 34E 02 331	UNKNOWN	OGLL	-19.51	2-17	-	-19.51	81	-19.51	81	81
11S 34E 05 211	UNKNOWN	-	-28.56	2-17	-	-28.56	81	-28.56	81	81

A well being pumped
B well pumped recently
C nearby well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
11S 34E 10 413	N.M. SALT WATER CO.	OGLL	-20.50	2-17	-0.04	-20.46	76	-20.65	71	71,76,81
11S 34E 12 341	BOGLE FARMS INC.	OGLL	-25.29	2-17	+1.44	-25.29	81	-26.73	76	61,65-66,71,76,81
11S 34E 14 434	BOGLE FARMS INC.	OGLL	-24.92	2-17	+1.58	-24.92	81	-37.24	71	61,66,71,76,81
11S 34E 15 113	BOGLE FARMS INC.	OGLL	-8.80	2-17	+0.18	-8.80	81	-8.98	76	61,66,71,76,81
11S 34E 15 344	BOGLE FARMS INC.	OGLL	-14.95	2-17	-	-14.95	81	-14.95	81	61,66,71,81
11S 34E 16 332	BOGLE FARMS INC.	OGLL	-22.35	2-17	+0.13	-22.35	81	-22.48	76	61,66,71,76,81
11S 34E 17 343	4 LAKES RANCH	-	-27.95	2-17	-	-27.95	81	-27.95	81	81
11S 34E 21 142	BOGLE FARMS	OGLL	-25.91	2-17	-	-25.91	81	-25.91	81	81
11S 34E 23 132	BOGLE FARMS INC.	OGLL	-24.93	2-17	+0.97	-24.93	81	-39.60	71	61,66,71,76,81
11S 34E 24 314	BOGLE FARMS INC.	OGLL	-24.38	2-17	-	-24.38	81	-33.81	71	61,66,71,81
11S 34E 25 211	BOGLE FARMS INC.	OGLL	-23.84	2-17	+1.47	-23.84	81	-28.15	71	61,66,71,76,81
11S 34E 26 412	BOGLE FARMS INC.	OGLL	-26.24	2-17	+0.71	-25.00	61	-26.95	76	61,71,76,81
11S 34E 29 141	BOGLE FARMS INC.	OGLL	-24.80	2-17	+0.04	-24.80	81	-27.77	61	61,66,71,76,81
11S 34E 31 421	THOMAS M. EPPERSON	OGLL	-31.82	2-17	+0.53	-31.82	81	-32.35	76	61,66,76,81
11S 35E 05 132	UNKNOWN	-	-105.98	2-17	-	-105.98	81	-105.98	81	81
11S 35E 12 211	BEDFORD	-	-41.31	2-18	-	-41.31	81	-41.31	81	81
11S 35E 24 322	GARY BURLESMITH	-	-26.03	2-18	-	-26.03	81	-26.03	81	81
11S 35E 26 311	GARY BURELSMITH	OGLL	-18.74	2-18	-0.40	-18.34	76	-18.74	81	61,66,71,76,81
11S 35E 28 213	UNKNOWN	-	-63.93	2-18	-	-63.93	81	-63.93	81	81
11S 35E 31 413	UNKNOWN	-	-24.80	2-18	-	-24.80	81	-24.80	81	81
11S 35E 35 211	GARY BURELSMITH	OGLL	-25.02	2-18	-3.68	-21.34	76	-25.02	81	61,66,71,76,81
11S 36E 03 221	UNKNOWN	OGLL	-43.46	2-19	-	-43.46	81	-44.02	58	58,76,81
11S 36E 04 121	UNKNOWN	OGLL	-44.77	2-20	-	-44.77	81	-44.77	81	76,81
11S 36E 05 343	BEDFORD RANCH	-	-45.53	2-18	-	-45.53	81	-45.53	81	81
11S 36E 09 234	UNKNOWN	OGLL	-33.46	2-20	-	-33.46	81	-34.24	58	58,81
11S 36E 10 232	UNKNOWN	OGLL	-18.93	2-19	-	-18.06	58	-18.93	81	58,81
11S 36E 13 434	SCHELLING	OGLL	-34.32	2-20	-	-34.32	81	-34.32	81	76,81
11S 36E 15 211	UNKNOWN	OGLL	-19.90	2-19	-	-19.90	81	-21.39	58	58,76,81
11S 36E 15 311	UNKNOWN	OGLL	-26.93	2-19	-	-26.93	81	-41.50	58	58,81
11S 36E 17 222	BEDFORD	OGLL	-42.78A	2-18	-	-43.35	58	-43.35	58	58,81
11S 36E 18 122	BEDFORD RANCH	-	-63.26	2-18	-	-63.26	81	-63.26	81	81
11S 36E 23 122	DICKINSON	-	-25.74	2-20	-	-25.74	81	-25.74	81	81
11S 36E 24 243	UNKNOWN	OGLL	-23.84	2-20	-	-23.84	81	-27.15	58	58,81
11S 36E 25 344	UNKNOWN	OGLL	-20.93	2-20	-3.38	-17.55	76	-20.93	81	61,66,71,76,81
11S 36E 27 343	DICKINSEN	-	-21.93	2-20	-	-21.93	81	-21.93	81	81
11S 36E 28 124	UNKNOWN	OGLL	-24.14	2-19	-	-24.14	81	-24.98	58	58,81
11S 36E 28 333	DICKINSON CATTLE CO.	OGLL	-18.91	2-19	-1.16	-17.75	76	-24.27	66	61,66,71,76,81
11S 36E 29 111	GARY BURELSMITH	-	-22.92	2-18	-	-22.92	81	-22.92	81	81
11S 36E 33 331	M. HORTON	OGLL	-15.45	2-19	-1.28	-14.17	76	-15.45	81	61,66,71,76,81
11S 36E 35 344	DICKINSON CATTLE CO.	OGLL	-23.92	2-20	-2.89	-21.03	76	-23.92	81	66,71,76,81
11S 37E 02 123	WALKING CAMP RANCH	OGLL	-63.24	2-25	-	-63.24	81	-63.24	81	81
11S 37E 07 224	UNKNOWN	OGLL	-20.52	2-25	-	-20.52	81	-22.58	58	58,81
11S 37E 08 421	UNKNOWN	OGLL	-35.40	2-25	-	-35.40	81	-39.66	58	58,81
11S 37E 17 111	UNKNOWN	OGLL	-44.97	2-25	-	-44.97	81	-46.30	58	58,81
11S 37E 22 323	OSCAR HENARD	OGLL	-59.47	2-25	+0.36	-59.47	81	-59.83	76	66,71,76,81
11S 37E 23 411	DICK TAYLOR	OGLL	-60.54	2-25	+0.81	-60.54	81	-61.35	76	76,81
11S 37E 24 441	DICK TAYLOR	OGLL	-73.40	2-24	+0.23	-73.40	81	-73.63	76	66,71,76,81
11S 37E 25 443	HENNARD PARTNERSHIP	-	-58.18A	2-24	-	-	-	-	-	81
11S 37E 26 422	DICK TAYLOR	OGLL	-61.41	2-25	+0.03	-61.35	71	-61.44	76	71,76,81
11S 37E 28 434	J. T. BESS	OGLL	-42.56	2-25	+0.30	-42.56	81	-45.57	66	66,71,76,81
11S 37E 31 334	MAX STX	OGLL	-19.68	2-20	-1.79	-17.89	76	-22.52	61	61,66,71,76,81
11S 37E 32 242	J.T. BESS	OGLL	-39.20	2-25	-0.91	-38.29	76	-39.20	81	71,76,81
11S 37E 32 323	J. T. BESS	OGLL	-43.51	2-25	-14.64	-28.87	76	-43.51	81	61,66,71,76,81
11S 37E 33 224	TOM BESS	OGLL	-42.50	2-25	+0.43	-42.50	81	-44.07	71	61,71,73,76,81
11S 37E 34 141	OSCAR HENARD	OGLL	-42.75	2-25	+0.63	-42.75	81	-43.38	76	61,73,76,81
11S 37E 35 232	UNKNOWN	OGLL	-45.49	2-25	-	-45.49	81	-47.03	61	61,
11S 38E 16 143	HALF CATTLE CO.	-	-85.06	2-24	-	-85.06	81	-85.06	81	81
11S 38E 18 314	UNKNOWN	-	-86.10	2-24	-	-86.10	81	-86.10	81	81
11S 38E 20 444	IVE FIELD	OGLL	-85.52	2-19	+0.05	-85.52	81	-85.87	61	61,66,71,76,81
11S 38E 21 214	UNKNOWN	-	-80.60	2-19	-	-80.60	81	-80.60	81	81
11S 38E 30 233	DICK TAYLOR	OGLL	-68.06	2-24	+0.50	-67.66	66	-68.59	61	61,66,71,76,81
11S 38E 30 341	UNKNOWN	OGLL	-64.97	2-29	+0.66	-64.97	81	-66.50	66	61,66,71,76,81
11S 38E 31 433	UNKNOWN	-	-37.47	2-24	-	-37.47	81	-37.47	81	81
11S 38E 32 422	PRENTICE HARRIS	OGLL	-58.37	2-19	-	-58.37	81	-59.26	71	71,76,81
11S 38E 34 331	UNKNOWN	OGLL	-48.54D	2-19	-	-	-	-	-	66,71,76,81
11S 38E 35 433	R. K. FIELDS	OGLL	-52.10	2-19	-0.04	-57.06	76	-52.58	61	61,66,71,76,81
12S 32E 02 121	ROY FORT	OGLL	-36.04B	3-12	-	-	-	-	-	61,66,76-77,81
12S 32E 03 433	TEXACO	OGLL	-30.61	1-06	+20.96	-30.61	81	-51.94	79	65-79,81
12S 32E 04 422	ROY FORT	OGLL	-28.44	3-12	-	-24.38	61	-28.44	81	61,66,71,76,81
12S 32E 12 242	MRS. L. H. CHAMBERS	OGLL	-79.66	3-11	-	-79.66	81	-81.69	66	61,66,71,76,81
12S 32E 13 131	W. N. GLENN	OGLL	-31.55	3-11	-	-27.48	61	-31.55	81	61,66,71,76,81
12S 32E 15 343	BYRON FORT	OGLL	-32.61	3-11	-	-32.61	81	-32.61	81	61,66,71,76,81
12S 32E 16 142	NORMAN GROSS	OGLL	-35.29	3-11	-	-35.29	81	-35.29	81	61,66,76,81
12S 32E 19 144	JULIE CULP	OGLL	-77.57	3-12	-	-76.62	61	-79.02	71	61,66,71,76,81
12S 32E 23 333	NORMAN GROSS	OGLL	-34.42	3-11	-	-34.42	81	-35.44	71	61,66,71,76,81
12S 32E 24 113	W. N. GLENN	OGLL	-27.72	3-11	-	-26.75	61	-27.90	66	61,66,71,76,81
12S 32E 29 113	BESS CULP	OGLL	-96.88	3-12	-	-96.88	81	-96.88	81	61,66,71,76,81
12S 32E 31 113	GRARIDGE CORP.	OGLL	-117.05	3-12	-	-117.05	81	-117.05	81	76,81
12S 32E 31 411	GRARIDGE CORP.	OGLL	-116.20	3-12	-	-116.20	81	-131.49	71	61,66,71,76,81
12S 33E 01 321	J. T. ACREY	OGLL	-46.00A	3-10	-	-	-	-	-	61,66,71,76,81

A well being pumped
B well pumped recently
D nearby well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
12S 33E 03 244	RAY HILBURN	OGLL	-45.04	3-10	-	-44.70	71	-45.25	61	61,66,71,76,81
12S 33E 05 233	J.L. COX	OGLL	-68.75	3-11	-	-68.75	81	-68.75	81	76,81
12S 33E 06 112	PETE LOUISSENA	OGLL	-65.91	3-11	-	-65.70	61	-66.25	71	61,66,71,76,81
12S 33E 07 223	LOUISSENA CO.	OGLL	-74.28	3-11	-	-74.28	81	-74.28	81	61,66,70-76,81
12S 33E 09 244	MRS. L. H. CHAMBERS	OGLL	-60.45	3-10	-	-60.45	81	-60.55	61	61,66,71,76,81
12S 33E 11 112	MRS. L. H. CHAMBERS	OGLL	-46.25	3-10	-	-45.98	71	-46.25	81	61,66,71,76,81
12S 33E 12 131	J. T. ACREY	OGLL	-44.50	3-10	-	-44.50	81	-44.85	61	61,66,71,76,81
12S 33E 12 333	J. T. ACREY	OGLL	-45.60	3-10	-	-45.60	81	-45.60	81	61,66,71,76,81
12S 33E 14 234	J. T. ACREY	OGLL	-57.37	3-10	-	-57.37	81	-57.37	81	61,66,71,76,81
12S 33E 15 341	LOUISSENA CO.	OGLL	-71.57	3-10	-	-71.57	81	-71.57	81	61,66,71,76,81
12S 33E 16 344	LOUISSENA CO.	OGLL	-76.77	3-10	-	-76.77	81	-76.77	81	61,66,71,76,81
12S 33E 20 113	HUGH GRAHAM	OGLL	-89.74	3-11	-	-89.74	81	-89.74	81	61,66,71,76,81
12S 33E 27 244	MRS. R. C. ROACH	OGLL	-79.47	3-10	-	-79.47	81	-79.47	81	61,66,71,76,81
12S 33E 28 211	BIRDIE ROACH	-	-81.32	3-10	-	-81.32	81	-81.32	81	81
12S 33E 28 272	BIRDIE ROACH	OGLL	-93.40	1-06	-	-91.40	79	-96.65	77	77,79,81
12S 33E 33 441	BIRDIE ROACH	-	-106.88	3-11	-	-106.88	81	-106.88	81	81
12S 33E 34 441	BIRDIE C. ROACH	OGLL	-87.87	3-11	-	-87.35	61	-87.87	81	61,66,71,76,81
12S 33E 35 111	BILL ROACH	-	-86.21	3-11	-	-86.21	81	-86.21	81	81
12S 33E 35 414	MRS. R. C. ROACH	OGLL	-79.99A	3-11	-	-	-	-	-	61,66,71,76,81
12S 33E 36 321	MRS. R. C. ROACH	OGLL	-76.95	3-11	-	-76.95	81	-76.95	81	61,71,76,81
12S 34E 02 213	HUMBLE OIL	OGLL	-27.31	3-06	-0.21	-26.83	61	-27.66	66	61,66,71,76,81
12S 34E 05 344	B. M. MEDLIN	OGLL	-34.18	3-10	-	-34.18	81	-35.38	66	61,66,70-76,81
12S 34E 09 213	UNKNOWN	-	-33.47	3-10	-	-33.47	81	-33.47	81	81
12S 34E 11 331	A. D. JONES ESTATE	-	-35.10	3-06	-	-35.10	81	-35.10	81	81
12S 34E 11 421	A.D. JONES	OGLL	-33.30	1-06	+0.12	-29.78	50	-33.95	78	49-81
12S 34E 13 112	A.D. JONES	OGLL	-40.08	3-06	-	-21.50	78	-46.35	66	47-53,55,57-58,61-62,66,71, 76-78,81
12S 34E 14 242	A. D. JONES	OGLL	-54.94	3-06	-	-36.20	61	-54.94	81	61,66,71,76,81
12S 34E 14 433	CACTUS DRILLING CO.	OGLL	-38.86	3-06	-	-38.71	71	-38.86	81	66,71,76,81
12S 34E 15 243	A. D. JONES ESTATE	-	-36.30	3-06	-	-36.30	81	-36.30	81	81
12S 34E 16 111	DOIS FRIER	OGLL	-39.58	3-10	-	-39.58	81	-41.82	66	61,66,71,76,81
12S 34E 16 331	O. S. FRIER	OGLL	-44.12	3-10	-	-44.12	81	-46.12	66	61,66,71,76,81
12S 34E 16 344	DOIS FRIER	-	-42.88	3-10	-	-42.88	81	-42.88	81	81
12S 34E 17 121	B. M. MEDLIN	OGLL	-41.96	3-10	-	-41.96	81	-43.03	66	61,66,71,76,81
12S 34E 18 121	B. M. MEDLIN	OGLL	-43.10	3-10	-	-43.10	81	-43.17	61	61,66,71,76,81
12S 34E 19 414	B. M. MEDLIN	OGLL	-54.61	3-10	-	-51.46	61	-54.61	81	61,66,71,76,81
12S 34E 22 443	A. W. THOMPSON	OGLL	-38.54	3-06	-	-38.19	61	-39.58	71	61,66,71,76,81
12S 34E 23 443	PHILLIPS PET. CO.	OGLL	-36.47	3-06	-	-36.12	61	-38.76	71	61,66,71,76,81
12S 34E 24 344	A. D. JONES ESTATE	OGLL	-34.69	3-06	-	-34.69	81	-34.69	81	61,66,71,76,81
12S 34E 28 342	O. S. FRIER	OGLL	-51.94	3-10	-	-51.60	61	-52.40	66	61,66,71,76,81
12S 34E 30 122	UNKNOWN	OGLL	-57.14	3-10	-	-56.96	66	-57.14	81	66,71,76,81
12S 34E 31 221	O. S. FRIER	OGLL	-58.15	3-10	-	-56.97	61	-58.15	81	61,66,71,76,81
12S 34E 34 141	MARCUM DRLG. CO	OGLL	-45.39	3-06	-	-45.30	61	-45.67	66	61,66,71,76,81
12S 34E 34 223	NOBLE DRILLING CO.	OGLL	-40.82	3-06	-	-40.82	81	-41.74	66	61,66,71,76,81
12S 34E 35 122	A. D. JONES	OGLL	-38.45	3-06	-	-38.45	81	-40.29	66	61,66,71,76,81
12S 34E 36 422	A. D. JONES ESTATE	OGLL	-33.39	3-06	-	-33.39	81	-33.39	81	61,66,71,76,81
12S 35E 01 414	W. K. DICKINSON JR.	OGLL	-22.57	3-05	-5.30	-17.27	76	-22.57	81	61,66,71,76,81
12S 35E 04 412	A. D. JONES	OGLL	-25.19	3-05	-1.78	-23.41	76	-31.87	66	61,66,71,76,81
12S 35E 07 214	A. D. JONES ESTATE	OGLL	-24.92	3-05	-1.18	-23.74	76	-24.92	81	66,71,76,81
12S 35E 08 144	A.D. JONES ESTATE	OGLL	-38.27	3-05	-0.69	-37.58	76	-38.27	81	76,81
12S 35E 11 133	W. K. DICKINSON JR.	OGLL	-27.42	3-05	-1.23	-26.19	76	-27.42	81	61,66,71,76,81
12S 35E 12 424	W. K. DICKINSON JR.	OGLL	-18.14	3-05	-	-18.14	81	-18.14	81	61,66,76,81
12S 35E 13 341	DOYLE EVANS	OGLL	-23.50	3-05	-1.50	-22.00	76	-23.50	81	61,66,71,76,81
12S 35E 14 313	W. K. DICKINSON ESTATE	OGLL	-10.58	3-05	-0.09	-10.49	76	-12.56	71	71,76,81
12S 35E 14 314	W. K. DICKINSON JR.	OGLL	-18.02	3-05	-0.55	-17.47	76	-18.55	61	61,66,71,76,81
12S 35E 21 314	A. D. JONES ESTATE	OGLL	-26.61	3-06	-0.20	-25.57	66	-26.61	81	61,66,71,76,81
12S 35E 24 331	DOYLE EVANS	OGLL	-22.47	3-05	-0.68	-21.79	76	-24.49	66	61,66,71,76,81
12S 35E 24 414	DOYLE EVANS	OGLL	-26.16	3-05	-1.61	-24.55	76	-26.87	66	61,66,71,76,81
12S 35E 25 213	L. C. WHEELER	OGLL	-24.13	3-05	-2.17	-21.96	76	-29.10	66	61,66,71,76,81
12S 35E 25 422	DESSIE SAWYER	OGLL	-29.77	3-05	-1.39	-27.88	76	-30.45	71	61,66,71,76,81
12S 35E 27 413	L. S. WILLIAMS	OGLL	-21.70	3-06	-	-21.70	81	-23.28	66	61,66,71,76,81
12S 35E 30 341	A. D. JONES ESTATE	OGLL	-35.14	3-06	+0.09	-35.14	81	-35.78	66	61,66,71,76,81
12S 35E 30 412	A. D. JONES ESTATE	OGLL	-32.22	3-06	+0.11	-32.22	81	-33.35	66	66,76,81
12S 35E 32 214	A. D. JONES ESTATE	OGLL	-20.45	3-06	-0.40	-20.05	76	-20.45	81	61,71,76,81
12S 35E 35 112	L. S. WILLIAMS	OGLL	-19.88	3-10	+1.33	-19.88	81	-21.21	76	61,71,76,81
12S 35E 35 132	L. S. WILLIAMS	OGLL	-23.36	3-06	-	-23.36	81	-23.36	81	66,76,81
12S 35E 36 241	MRS. DESSIE SAWYER	-	-34.24	3-05	-	-34.24	81	-34.24	81	81
12S 35E 36 444	L. C. WHEELER	OGLL	-38.15	3-05	-1.24	-36.91	76	-39.59	66	61,66,71,76,81
12S 36E 01 232	BYRON FORT	OGLL	-21.29	3-03	-1.72	-19.57	76	-21.29	81	76,81
12S 36E 03 334	BYRON FORT	OGLL	-24.38	3-04	-1.69	-22.69	76	-24.38	81	61,66,71,76,81
12S 36E 04 333	GLADYS MORTON	OGLL	-16.94	3-04	-0.69	-16.25	76	-16.94	81	61,66,71,76,81
12S 36E 07 434	W.K. DICKINSON	OGLL	-31.07	3-05	-3.86	-27.21	76	-31.07	81	76,81
12S 36E 08 244	UNKNOWN	OGLL	-20.89	3-04	+0.46	-20.89	81	-21.35	76	61,66,71,76,81
12S 36E 11 231	BYRON FORT	OGLL	-25.54	3-04	-	-25.54	81	-25.54	81	61,66,71,76,81
12S 36E 13 142	J. T. BESS	OGLL	-24.46	3-04	-2.28	-22.18	76	-26.00	61	61,76,81
12S 36E 14 433	J. T. BESS	OGLL	-23.81	3-04	-2.29	-21.52	76	-27.05	71	61,66,71,76,
12S 36E 15 123	J. T. BESS	OGLL	-24.57	3-04	-1.36	-23.21	76	-24.57	81	61,66,71,76,81
12S 36E 16 232	MIKE W. HARTON	OGLL	-28.02	3-04	-2.35	-25.67	76	-30.95	66	61,66,71,76,81
12S 36E 16 433	M. W. HARTON	OGLL	-24.41	3-04	-0.47	-23.94	76	-28.09	66	61,66,71,76,81
12S 36E 17 444	M. W. HARTON	OGLL	-26.40A	3-04	-	-	-	-	-	61,66,71,76,81
12S 36E 19 223	O.V. FISHER	OGLL	-28.37	3-03	-	-23.40	42	-34.31	60	39-58,60-62,66,71,81

A well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
12S 36E 21 431	UNKNOWN	OGLL	-23.30	3-04	-1.13	-22.17	76	-23.30	81	76,81
12S 36E 22 314	N. M. PORT OF ENTRY	OGLL	-18.77	3-04	-0.60	-18.17	76	-21.82	66	66,71,76,81
12S 36E 24 234	A. P. BRECKON	OGLL	-22.90	3-04	-2.31	-20.59	76	-22.90	81	61,66,71,76,81
12S 36E 26 344	TOMMY PRICE	OGLL	-21.05	3-05	-	-21.05	81	-21.05	81	61,66,71,76,81
12S 36E 27 133	L. M. PRROT	OGLL	-15.58	3-04	-	-15.58	81	-15.58	81	81
12S 36E 28 311	EARL C. GUMP	OGLL	-22.98	3-04	-	-22.98	81	-26.47	66	61,66,71,76,81
12S 36E 29 111	ED HOLT	OGLL	-31.88	3-05	-2.47	-29.41	76	-31.88	81	61,66,71,76,81
12S 36E 29 241	TATUM PUBLIC SCHOOLS	OGLL	-25.74	3-05	-1.80	-23.94	76	-29.52	66	61,66,71,76,81
12S 36E 30 121	DESSIE SAWYER	OGLL	-24.47	3-04	-	-24.47	81	-24.47	81	76,81
12S 36E 31 221	ORIN DUTTON	OGLL	-36.61	3-04	-0.11	-34.58	61	-36.61	81	61,76,81
12S 36E 32 121	LEWIS NELSON	OGLL	-37.53	3-04	+0.16	-30.07	61	-32.85	71	61,66,71,76,81
12S 36E 32 313	ROY C. AYRES	OGLL	-42.65	3-04	+2.77	-42.65	81	-45.74	66	66,71,76,81
12S 36E 33 133	HENRIETTA BURKES	OGLL	-29.26	3-04	-	-27.28	61	-29.26	81	61,66,71,76,81
12S 36E 34 332	UNKNOWN	OGLL	-20.42A	3-04	-	-	-	-	-	81
12S 37E 01 333	UNKNOWN	OGLL	-19.60	2-27	+1.18	-19.60	81	-27.85	66	61,66,71,76,81
12S 37E 02 142	ZACK TAYLOR	OGLL	-26.01	2-27	+1.34	-26.01	81	-27.35	76	61,66,71,76,81
12S 37E 06 131	NEIL & DELTA SIX	OGLL	-21.20	1-06	-0.22	-20.98	76	-29.39	66	61,66,71,74-77,79-81
12S 37E 07 134	WALTER DICKENSON	OGLL	-23.82	3-03	-1.97	-21.85	76	-23.82	81	61,66,71,76,81
12S 37E 08 333	A. P. BRECKON	OGLL	-23.20	3-03	-	-23.20	81	-23.20	81	81
12S 37E 09 333	MARKHAM	OGLL	-23.77	3-03	-	-23.77	81	-23.77	81	81
12S 37E 11 322	DICKENSON CATTLE CO.	CRCS	-30.67	2-21	-0.52	-30.15	76	-30.67	81	76,81
12S 37E 12 331	DICKINSON CATTLE CO.	OGLL	-20.37	2-27	-	-20.37	81	-20.37	81	81
12S 37E 12 423	DICKENSON CATTLE CO.	OGLL	-23.16	2-27	-	-23.16	81	-25.05	71	61,66,71,76,81
12S 37E 13 343	UNKNOWN	OGLL	-24.87	2-27	-	-24.87	81	-24.87	81	81
12S 37E 13 422	LOUIS & JESSIE SLACK	OGLL	-23.65	2-27	-1.90	-21.75	76	-27.33	66	61,66,71,76,81
12S 37E 15 113	DICKENSON CATTLE CO.	OGLL	-27.14	3-03	+1.34	-27.14	81	-28.48	76	61,66,71,76,81
12S 37E 15 244	DICKENSON CATTLE CO.	OGLL	-28.17	2-27	-0.01	-28.16	76	-33.18	61	61,66,71,76,81
12S 37E 17 312	A. P. BRECKON	OGLL	-21.05	3-03	-	-21.05	81	-21.05	81	81
12S 37E 18 131	GORE AND SMITH	OGLL	-22.44A	3-04	-	-	-	-	-	61,66,71,76,81
12S 37E 18 333	GORE AND SMITH	OGLL	-22.05	3-03	-2.16	-19.89	76	-24.50	66	61,66,71,76,81
12S 37E 20 111	A. P. BRECKON	OGLL	-18.58	3-03	-	-18.58	81	-20.50	66	66,71,76,81
12S 37E 20 232	A. P. BRECKON	OGLL	-16.92	3-03	-1.18	-15.74	76	-17.89	61	61,71,76,81
12S 37E 20 341	W. O. DUNLAP JR.	CRCS	-23.93	1-06	-	-20.17	80	-26.63	55	54-81
12S 37E 21 124	UNKNOWN	OGLL	-23.94	3-03	-	-23.94	81	-23.94	81	81
12S 37E 22 221	DICKENSON CATTLE CO.	OGLL	-25.09	2-27	-0.20	-24.89	76	-25.09	81	61,66,71,76,81
12S 37E 23 131	DICKENSON CATTLE CO.	CRCS	-29.52	2-27	-3.43	-26.09	76	-30.06	61	61,66,71,76,81
12S 37E 23 433	KINSOVING	OGLL	-24.09	2-27	-2.74	-21.35	76	-24.55	71	61,66,71,76,81
12S 37E 24 312	UNKNOWN	OGLL	-33.34	2-27	-	-33.34	81	-33.34	81	81
12S 37E 26 413	DICKENSON CATTLE CO.	OGLL	-32.69	3-03	-1.12	-31.57	76	-33.75	66	61,66,71,76,81
12S 37E 27 213	UNKNOWN	OGLL	-28.10	3-03	-	-28.10	81	-28.10	81	61,66,71,76,81
12S 37E 27 433	BRADY LOWE	OGLL	-33.10	3-03	-0.76	-32.34	76	-33.10	81	76,81
12S 37E 28 144	BRADY LOWE	OGLL	-28.09	3-03	-	-28.09	81	-28.09	81	81
12S 37E 29 433	BRADY LOWE	OGLL	-29.53	3-03	+0.85	-29.53	81	-30.38	76	61,66,71,76,81
12S 37E 30 444	TOMMY PRICE	OGLL	-23.86	3-03	-	-23.86	81	-23.86	81	81
12S 37E 31 324	UNKNOWN	OGLL	-27.44	3-03	+0.32	-27.44	81	-27.76	76	61,66,71,76,81
12S 37E 32 143	BRADY LOWE & SON	OGLL	-29.13	3-03	-	-29.13	81	-29.13	81	81
12S 37E 33 413	BRADY LOWE	OGLL	-33.04	2-27	+1.41	-33.04	81	-34.45	76	61,66,71,76,81
12S 37E 34 434	BRADY LOWE	OGLL	-34.56	2-27	+0.78	-34.56	81	-35.34	76	61,66,71,76,81
12S 37E 35 143	BRADY LOWE	OGLL	-32.78	2-27	+0.51	-32.27	76	-32.78	81	61,66,71,76,81
12S 37E 35 224	ESCOLA TRAVIS	OGLL	-31.72	2-27	-1.26	-30.46	76	-32.31	66	61,66,71,76,81
12S 38E 03 312	FIELDS	OGLL	-48.23	2-26	-	-48.23	81	-48.23	81	81
12S 38E 04 132	G.C. COPELAND	OGLL	-39.71	1-06	-0.79	-38.64	77	-43.35	41	41-79,81
12S 38E 04 344	G. C. COPELAND	OGLL	-29.87	2-26	-1.51	-28.36	76	-29.87	81	61,76,81
12S 38E 05 411	UNKNOWN	OGLL	-33.74	2-26	-1.76	-31.98	76	-37.12	66	61,66,71,76,81
12S 38E 08 141	B. C. JONES	OGLL	-28.18	2-27	-	-28.18	81	-30.09	71	61,66,71,76,81
12S 38E 11 422	R. K. FIELD	OGLL	-36.56A	2-26	-	-36.74	71	-36.74	71	61,66,71,76,81
12S 38E 13 142	DAN FIELD	OGLL	-30.97A	2-26	-	-29.98	71	-29.98	71	61,71,81
12S 38E 16 414	MABLE FIELD	OGLL	-7.50	2-26	-0.80	-6.70	76	-10.01	66	61,66,71,76,81
12S 38E 18 212	SINCLAIR OIL CO.	OGLL	-21.45	2-27	-2.85	-18.60	76	-25.72	66	61,66,71,76,81
12S 38E 18 234	DICKENSON CATTLE CO.	OGLL	-19.90	2-27	-2.95	-16.95	76	-23.50	66	61,66,71,76,81
12S 38E 19 143	CLINTON HOUSTON	OGLL	-20.70	2-26	-2.39	-18.31	76	-22.36	66	66,71,76,81
12S 38E 19 413	CLINTON HOUSTON	OGLL	-19.06	2-26	-	-19.06	81	-21.18	61	61,
12S 38E 20 221	MABEL FIELD	OGLL	-21.72	2-26	-2.12	-19.60	76	-22.72	71	61,66,71,76,81
12S 38E 20 422	BOBBY FIELD	OGLL	-36.05	2-26	-	-36.05	81	-36.05	81	81
12S 38E 22 441	BOBBY FIELD	OGLL	-23.92	2-26	-2.34	-21.58	76	-24.27	61	61,66,71,76,81
12S 38E 23 424	MABEL FIELD	OGLL	-25.94	2-26	-1.63	-23.78	71	-25.94	81	61,66,71,76,81
12S 38E 26 343	PRESSLEY HODGE	OGLL	-27.99	2-26	-3.66	-24.33	76	-29.06	71	61,71,76,81
12S 38E 28 344	PRESSLEY HODGE	OGLL	-22.82	2-27	-	-22.82	81	-22.82	81	61,66,71,76,81
12S 38E 29 214	UNKNOWN	OGLL	-30.44	2-26	-	-30.44	81	-30.44	81	81
12S 38E 30 144	MABEL FIELD	OGLL	-26.08	2-27	+0.62	-25.46	76	-26.08	81	61,66,71,76,81
12S 38E 31 422	A. P. BRECKON	OGLL	-32.74	2-27	-0.31	-32.43	76	-32.95	71	61,66,71,76,81
12S 38E 32 233	J. P. HODGE	OGLL	-28.69	2-26	-	-28.69	81	-28.69	81	81
12S 38E 33 443	M. D. BRIAN	OGLL	-37.07	2-26	-2.41	-34.66	76	-37.80	66	66,71,76,81
12S 38E 35 344	BEA ETTA HARRIS HALL	OGLL	-56.37	2-26	-	-48.57	61	-56.37	81	61,66,71,76,81
13S 32E 02 343	COOPER AND GOOD RANCH	OGLL	-130.66	2-06	+0.76	-130.66	81	-135.03	61	61,66,71,76,81
13S 32E 04 211	PRICE RANCH	-	-99.40	2-06	-	-99.40	81	-99.40	81	81
13S 32E 05 233	PRICE RANCH	OGLL	-105.86	2-06	-0.75	-105.11	76	-107.68	66	61,66,71,76,81
13S 32E 06 433	GRAINGE CORP.	OGLL	-126.48	2-06	+0.57	-126.48	81	-131.17	61	61,66,71,76,81
13S 32E 08 311	TOMMY PRICE	OGLL	-125.61	2-06	-	-125.60	66	-126.02	71	66,71,81
13S 32E 09 331	GREAT WESTERN DRLG. CO.	OGLL	-133.50	2-06	-0.10	-132.82	61	-133.50	81	61,66,71,76,81

A well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
13S 32E 16 400	GREAT WESTERN DRLG. CO.	OGLL	-139.79	2-04	+0.47	-139.79	81	-140.80	71	66,71,76,81
13S 32E 20 411	TOMMY PRICE	OGLL	-137.47	2-05	+0.01	-137.47	81	-141.74	61	61,66,71,76,81
13S 32E 21 332	GREAT WESTERN	OGLL	-154.54	2-06	+0.97	-154.54	81	-163.89	66	61,66,71,76,
13S 32E 23 433	GOOD RANCH	-	-145.19	2-06	-	-145.19	81	-145.19	81	81
13S 32E 24 214	COOPER AND GOOD	OGLL	-143.90	2-04	+0.08	-143.90	81	-143.98	76	61,66,71,76,81
13S 32E 25 214	COOPER AND GOOD	OGLL	-142.56	1-06	+0.22	-142.02	79	-143.34	55	53-79,81
13S 32E 28 320	GREAT WESTERN	OGLL	-163.73	2-05	-	-163.73	81	-163.73	81	80-81
13S 32E 33 433	GREAT WESTERN DRLG. CO.	OGLL	-186.87	2-05	-	-186.87	81	-189.53	71	66,71,76,81
13S 32E 35 141	COOPER AND GOOD	OGLL	-146.83	2-04	-0.52	-146.31	76	-146.83	81	61,66,71,76,81
13S 33E 01 434	BESSIE FRIER	OGLL	-71.25	2-03	+0.39	-71.25	65	-72.85	61	61,65,71,76,81
13S 33E 02 333	BILL ROACH	OGLL	-94.77R	2-03	+0.30	-95.07	76	-95.07	76	76,81
13S 33E 03 113	MRS. R. C. ROACH	OGLL	-98.26	2-03	+0.18	-97.88	71	-99.45	61	61,66,71,76,81
13S 33E 04 113	DEAN GOFF	OGLL	-106.76R	2-03	-	-	-	-	-	76,81
13S 33E 05 344	DEAN GOFF	OGLL	-116.39A	2-03	+0.26	-116.13	76	-119.55	61	61,71,76,81
13S 33E 09 111	S. C. LOVE	OGLL	-103.88	2-03	+0.15	-103.88	81	-105.05	61	61,66,71,76,81
13S 33E 14 424	BESSIE FRIER	OGLL	-83.62	2-03	+0.47	-83.62	81	-84.17	71	66,71,76,81
13S 33E 20 114	L. H. CHAMBERS	OGLL	-128.19	2-03	+0.26	-128.19	81	-133.39	61	61,66,71,76,81
13S 33E 21 411	GERALDINE TULK	OGLL	-106.46	2-04	-	-106.46	81	-106.91	71	71,76,81
13S 33E 22 421	GERALDINE TULK	OGLL	-86.83	2-03	+0.59	-86.83	81	-87.42	76	61,71,76,81
13S 33E 23 243	MANCUM DRILLING CO.	-	-85.86	2-04	-	-85.86	81	-85.86	81	81
13S 33E 26 412	HENRY EAVES	OGLL	-79.20	2-04	+0.74	-79.20	81	-80.87	61	61,66,71,76,81
13S 33E 28 444	GERALDINE TULK	OGLL	-95.69	2-03	+0.57	-95.69	81	-96.26	76	76,81
13S 33E 29 122	ADELINE CHAMBERS	OGLL	-116.84	2-03	+0.39	-116.84	81	-118.20	66	66,71,76,81
13S 33E 32 313	UNKNOWN	-	-126.78	2-03	-	-126.78	81	-126.78	81	81
13S 33E 35 341	MILBURN TRUST	OGLL	-84.93	2-03	+0.40	-84.93	81	-85.90	71	71,76,81
13S 33E 36 244	MARY FITCHEVERRY	OGLL	-70.47	2-04	-	-65.74	61	-70.47	81	61,66,71,76,81
13S 34E 01 123	HOMER INGLE	OGLL	-37.16	1-30	+0.09	-37.16	81	-38.86	66	61,66,71,76,81
13S 34E 02 234	A. D. FRIER	OGLL	-41.41	1-30	-0.94	-40.47	76	-41.41	81	61,66,71,76,81
13S 34E 04 433	A. D. FRIER	OGLL	-59.04	1-30	-	-57.20	61	-59.04	81	61,66,71,76,81
13S 34E 06 414	A. D. FRIER	OGLL	-66.94	1-29	-	-66.94	81	-66.94	81	76,81
13S 34E 08 313	J. M. DENTON	OGLL	-65.09	1-29	-	-64.72	66	-66.65	61	61,66,71,76,81
13S 34E 08 444	UNKNOWN	OGLL	-64.85	1-30	-3.19	-60.50	66	-64.85	81	66,71,76,81
13S 34E 09 424	J. L. REED	OGLL	-65.33	1-29	-	-58.65	71	-65.33	81	61,66,71,76,81
13S 34E 14 142	MARY RUTH MC CROKY	OGLL	-55.03	1-30	-	-53.07	66	-57.30	61	61,66,71,76,81
13S 34E 15 144	J. L. REED	OGLL	-58.15	1-30	-1.53	-54.87	61	-58.15	81	61,66,71,76,81
13S 34E 18 424	J. M. DENTON	OGLL	-61.08	1-29	+0.51	-60.51	61	-62.41	71	61,66,71,76,81
13S 34E 21 111	DON BENNETT	OGLL	-64.17	1-06	-1.20	-62.12	75	-64.77	68	61,65-69,71-77,79-81
13S 34E 22 121	HETTIE SANDERS	OGLL	-59.63	1-30	-0.07	-59.56	76	-61.24	66	61,66,71,76,
13S 34E 23 211	MRS. ETHEL KEY	OGLL	-51.46	1-30	-1.25	-50.21	76	-52.66	71	61,66,71,76,81
13S 34E 24 311	J.R. MCCRORY	OGLL	-58.11	1-30	-	-49.79	71	-58.11	81	61,66,71-76,81
13S 34E 26 312	D. M. CALLUN	OGLL	-51.55	1-29	-0.29	-51.22	61	-52.72	71	61,66,71,76,81
13S 34E 27 212	HETTIE SANDERS	OGLL	-56.00	1-27	-	-56.00	81	-57.55	71	61,66,71,81
13S 34E 27 331	MRS. S. S. DYE	OGLL	-56.17	1-29	-	-56.37	81	-57.89	71	61,66,71,76,81
13S 34E 28 211	MAE DENNY	OGLL	-58.33	1-29	-0.06	-58.27	76	-60.35	66	61,66,71,76,81
13S 34E 28 331	MRS. S. S. DYE	OGLL	-59.86	1-29	+0.23	-59.86	81	-60.87	71	61,66,71,76,81
13S 34E 29 142	TROY FORT	OGLL	-61.92	1-29	-	-61.50	61	-61.92	81	61,66,71,81
13S 34E 30 443	CACTUS DRILLING CO.	-	-66.48	1-29	-	-66.48	81	-66.48	81	81
13S 34E 32 412	UNKNOWN	-	-62.52	1-29	-	-67.52	81	-62.52	81	81
13S 34E 35 314	TIPSON FIELD	OGLL	-48.64	1-29	-	-48.64	81	-52.85	61	61,66,71,76,81
13S 35E 01 121	TRIMBLE HOT SPRINGS	OGLL	-33.18	1-27	-2.69	-30.49	76	-33.73	66	61,66,71,76,81
13S 35E 02 111	R.W. DUNCAN	OGLL	-31.14	1-06	-2.32	-26.53	56	-31.50	74	53-72,74-81
13S 35E 03 313	DUTTERERS ENTERPRIZES	OGLL	-45.13	1-27	-2.97	-42.16	76	-45.13	81	76,81
13S 35E 03 344	DUTTERERS ENTERPRISES	-	-57.82	1-28	-	-57.82	81	-57.82	81	81
13S 35E 04 122	E. R. ALEXANDER	OGLL	-26.04	1-27	-	-26.04	81	-27.86	61	61,81
13S 35E 05 344	UNKNOWN	OGLL	-35.95	1-27	-1.70	-34.15	76	-35.95	81	61,66,71,76,81
13S 35E 06 311	HOMER INGLE	OGLL	-35.01	1-27	+2.16	-35.01	81	-41.29	61	61,66,71,76,
13S 35E 07 431	CLARA ELKAN	OGLL	-41.30	1-27	-0.15	-41.15	76	-43.05	61	61,66,71,76,81
13S 35E 09 143	J. D. GUFF	OGLL	-39.66	1-27	-5.09	-34.57	76	-41.69	66	61,66,71,76,81
13S 35E 10 211	DUTTERERS ENTERPRISES	-	-46.77	1-28	-	-46.77	81	-46.77	81	81
13S 35E 11 222	A.M. TUTT	OGLL	-45.26	1-28	-	-29.14	43	-74.29	55	39-71,81
13S 35E 11 313	UNKNOWN	-	-43.68	1-28	-	-43.68	81	-43.68	81	81
13S 35E 12 211	F. M. TUTT	OGLL	-47.27	1-28	+2.57	-45.15	61	-49.84	76	61,66,71,76,81
13S 35E 13 121	FARR-BRADFORD, LTD.	OGLL	-48.82	1-28	+1.75	-48.82	81	-51.45	66	66,71,76,81
13S 35E 13 244	R. C. DOVE	-	-52.65	1-28	-	-52.65	81	-52.65	81	81
13S 35E 15 223	MRS. P. W. DUNCAN	OGLL	-44.11R	1-28	-0.07	-39.10	61	-44.04	76	61,66,71,76,81
13S 35E 17 233	CLARA ELKAN	OGLL	-43.80	1-27	+1.46	-43.80	81	-45.64	66	61,66,71,76,81
13S 35E 20 314	CLARA ELKAN	OGLL	-45.72	1-27	+1.93	-45.72	81	-47.70	66	61,66,71,76,
13S 35E 21 112	CLARA ELKAN	OGLL	-41.62	1-27	-	-39.52	61	-41.62	81	61,66,71,76,81
13S 35E 23 222	TRIMBLE HOT SPRINGS	OGLL	-47.73	1-28	+0.79	-41.63	61	-48.52	76	61,66,71,76,81
13S 35E 23 413	ALSTON RANCH	-	-45.12	1-28	-	-45.12	81	-45.12	81	81
13S 35E 24 223	J. DUNCAN	-	-51.12	1-28	-	-51.12	81	-51.12	81	81
13S 35E 25 133	ALSTON RANCH	OGLL	-49.98	1-28	-	-44.34	61	-49.98	81	61,66,71,
13S 35E 26 311	SIDNEY WILLIAMS	OGLL	-44.45	1-27	+0.85	-41.93	61	-45.30	76	61,66,71,76,
13S 35E 30 131	CLARA ALSTON	OGLL	-49.37	1-27	-	-49.37	81	-49.37	81	61,66,71,76,81
13S 35E 31 111	ZACK JONES	OGLL	-48.05	1-27	+3.62	-48.05	81	-51.67	76	61,66,71,76,
13S 35E 32 311	LENOY SHIRLD	OGLL	-42.97	1-29	+2.37	-42.97	81	-47.47	61	61,66,71,76,
13S 35E 33 113	LENDON WILBORN	OGLL	-45.22	1-29	-	-43.56	61	-45.22	81	61,66,71,76,81
13S 35E 34 311	CLARA ELKAN	OGLL	-41.70	1-27	-0.72	-38.89	61	-41.70	81	61,66,71,76,81
13S 35E 35 311	D. R. MC MILLAN	OGLL	-45.99	1-07	-0.13	-44.20	61	-50.37	76	61,66,71,73-81
13S 36E 03 324	UNKNOWN	OGLL	-39.77	1-15	-	-39.77	81	-39.77	81	66,71,76,81

A well being pumped
B well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
13S 36E 05 313	ROY SWAFFORD	-	-47.32	1-16	-	-47.32	81	-47.32	81	81
13S 36E 06 221	R. W. DUNCAN	OGLL	-40.92	1-27	+0.16	-40.92	81	-48.84	71	61,66,71,76,81
13S 36E 06 342	GEORGIA DUNCAN RANCH	-	-45.82	1-16	-	-45.82	81	-45.82	81	81
13S 36E 07 344	M. R. ANDERSON	OGLL	-55.73	1-16	-1.45	-50.20	66	-55.73	81	61,66,71,76,81
13S 36E 08 312	W. R. BAUM	OGLL	-54.74	1-16	+0.01	-52.38	71	-54.75	76	61,66,71,76,81
13S 36E 11 233	BAUMS	OGLL	-33.91	1-15	-1.18	-32.63	76	-33.81	81	66,71,76,81
13S 36E 13 234	D. P. JAMES	OGLL	-44.11	1-15	-0.74	-39.11	61	-45.53	71	61,66,71,76,81
13S 36E 16 224	I. H. MC CLURE	OGLL	-48.07	1-15	-2.06	-40.76	61	-48.07	81	61,66,71,76,81
13S 36E 17 221	W. R. BAUM	-	-52.45	1-16	-	-52.45	81	-52.45	81	81
13S 36E 20 111	MARY MAE HENDRICKS	OGLL	-58.30	1-15	-	-46.55	61	-58.30	81	61,66,71,81
13S 36E 21 133	IMOGENE MC CLURE	OGLL	-64.84	1-06	+0.13	-60.28	74	-64.97	76	74-81
13S 36E 21 411	IMOGENE MC CLURE	OGLL	-66.67	1-28	-	-53.57	61	-66.67	81	61,66,71,81
13S 36E 22 411	M. R. ANDERSON	OGLL	-58.86	1-16	-2.68	-56.18	76	-58.86	81	61,66,71,76,81
13S 36E 23 411	M. R. ANDERSON	OGLL	-53.41	1-16	-2.67	-47.71	71	-53.41	81	61,66,71,76,81
13S 36E 25 222	LEE DUNCAN	OGLL	-54.86	1-15	-2.72	-39.90	61	-54.86	81	61,66,71,76,81
13S 36E 26 413	IONA MC CLISH	OGLL	-86.86	1-06	-	-42.24	49	-86.86	81	49-76,78-81
13S 36E 28 321	MRS. HECTER C. GRAY	-	-71.23	1-16	-	-71.23	81	-71.23	81	81
13S 36E 29 211	R. J. HENDRICKS	-	-66.41	1-16	-	-66.41	81	-66.41	81	81
13S 36E 31 122	I. ROTENBOUGH	OGLL	-66.74	1-16	-	-56.22	61	-66.74	81	61,66,71,81
13S 36E 32 122	R.E. WILBURN	OGLL	-72.50	1-16	-	-43.36	50	-72.50	81	49-55,57-81
13S 36E 32 323	MRS. EFFIE C. MERONEY	-	-69.11	1-16	-	-69.11	81	-69.11	81	81
13S 36E 33 321	J. RICHARDSON	OGLL	-79.42	1-27	-	-40.16	47	-79.42	81	39-57,59-63,81
13S 36E 34 211	DOROTHY WALLIS	OGLL	-80.43	1-16	-2.87	-62.02	61	-80.43	81	61,76,81
13S 36E 34 311	LEON HEMANN ET AL	OGLL	-80.91	1-16	-0.64	-63.82	61	-80.91	81	61,66,71,76,81
13S 36E 35 324	J. MC COWAN	OGLL	-91.57	1-16	-	-53.74	52	-91.57	81	52-61,81
13S 36E 36 121	C. E. ALEXANDER	OGLL	-81.17	1-15	-	-63.10	61	-81.17	81	61,66,71,81
13S 37E 01 331	G. K. MCDONALD	OGLL	-52.56	1-13	-3.21	-49.35	76	-56.99	61	61,66,71,76,81
13S 37E 02 212	JOHNY PRICE	OGLL	-38.10	1-13	-	-38.10	81	-38.10	81	81
13S 37E 03 113	BRADY LOWE	OGLL	-37.95	1-14	-	-37.74	47	-43.85	56	39-58,60-62,81
13S 37E 04 243	BRADY LOWE	OGLL	-35.61	1-06	-	-33.83	43	-39.66	65	40-41,43-47,49-69,71-72,74-81
13S 37E 04 321	BRADY LOWE	OGLL	-39.71A	1-14	+1.57	-41.28	76	-41.28	76	61,66,71,76,81
13S 37E 06 134	H. H. HARRIS	OGLL	-31.06	1-14	-0.87	-30.19	76	-31.06	81	61,66,71,76,81
13S 37E 07 233	DAVID JAMES	OGLL	-37.68	1-14	-0.28	-37.15	71	-38.92	68	64-69,71,76,81
13S 37E 08 111	C. O. LACKEY	OGLL	-37.59	1-14	+0.66	-35.10	61	-38.25	76	61,66,71,76,81
13S 37E 08 111	C. O. LACKY	OGLL	-37.30	1-14	-	-37.30	81	-37.30	81	81
13S 37E 08 331	C. O. LACKEY	OGLL	-39.69	1-14	+0.64	-36.63	61	-41.20	71	61,66,71,76,81
13S 37E 10 343	G. A. WHITNIRE	OGLL	-44.00	1-14	-0.71	-40.98	61	-44.00	81	61,66,71,76,81
13S 37E 11 131	UNKNOWN	OGLL	-44.34	1-14	+5.00	-44.14	71	-49.34	76	66,71,76,81
13S 37E 13 211	BAILEY BROWNFIELD	OGLL	-44.07C	1-13	-1.67	-41.68	71	-42.45	76	71,76,81
13S 37E 16 123	A. M. BROWNFIELD	OGLL	-43.72	1-14	-0.71	-43.01	76	-43.72	81	61,66,71,76,81
13S 37E 17 211	LEE BERRYHILL	OGLL	-41.92	1-14	+1.59	-41.92	81	-44.75	71	66,71,76,81
13S 37E 17 311	F. L. HEIDEL	OGLL	-46.28	1-14	-0.05	-46.23	76	-47.45	71	71,76,81
13S 37E 17 442	F. L. HEIDEL	OGLL	-44.92	1-14	-	-36.86	61	-44.92	81	61,66,71,81
13S 37E 18 113	E.C. LACKEY	OGLL	-46.56	1-14	+0.25	-43.76	61	-46.81	76	61,66,71,76,81
13S 37E 18 343	JOE C. MC KOWN	OGLL	-56.30	1-28	-	-45.16	61	-56.30	81	61,66,71,81
13S 37E 19 312	GEORGIA & LEE DUNCAN	OGLL	-50.26	1-15	-	-50.26	81	-50.26	81	81
13S 37E 22 112	BAILEY BROWNFIELD	OGLL	-49.68	1-14	-	-42.94	61	-49.68	81	61,66,71,76,81
13S 37E 23 343	J. B. DURAN	OGLL	-53.59	1-13	-	-39.29	61	-53.59	81	61,66,71,76,81
13S 37E 24 111	J. L. REED	OGLL	-40.41	1-13	-1.52	-32.39	61	-40.41	81	61,66,71,76,81
13S 37E 24 423	LOWE LAND CO.	OGLL	-73.16	1-13	-3.20	-62.49	61	-73.16	81	61,71,76,81
13S 37E 25 131	H. L. LOWE	OGLL	-75.74	1-13	-18.07	-51.92	66	-75.74	81	61,66,71,76,81
13S 37E 25 433	JAMES MC RORY	OGLL	-76.14	1-13	-	-76.14	81	-76.14	81	61,66,81
13S 37E 26 133	J. B. DORAN	OGLL	-47.69	1-13	-	-47.69	81	-47.69	81	81
13S 37E 26 431	H. L. LOWE	OGLL	-59.65	1-13	-5.80	-42.57	61	-59.65	81	61,66,71,76,81
13S 37E 28 234	A. F. WIGHT	OGLL	-60.13	1-13	-	-33.76	46	-60.13	81	46,81
13S 37E 28 413	J. B. DORAN	OGLL	-67.36	1-06	-6.35	-31.70	45	-67.36	81	45-81
13S 37E 29 432	M. R. ANDERSON	OGLL	-59.31	1-13	-	-59.31	81	-59.31	81	61,66,71,76,81
13S 37E 31 131	ALEXANDER BROS.	OGLL	-77.50	1-15	-3.43	-57.02	61	-77.50	81	61,66,71,76,81
13S 37E 31 421	ALEXANDER BROS.	OGLL	-82.98	1-15	-	-57.31	61	-82.98	81	61,66,71,81
13S 37E 32 411	LOIS HOBBS	OGLL	-77.71	1-09	-	-56.01	61	-77.71	81	61,66,71,81
13S 37E 33 411	LOIS HOBBS-HULDA HEIDEL	OGLL	-72.90	1-14	-	-57.71	61	-72.90	81	61,66,71,81
13S 37E 34 211	LOIS HOBBS-HULDA HEIDEL	OGLL	-61.52	1-13	+5.83	-45.65	61	-67.35	76	61,66,71,76,81
13S 37E 34 431	LOWE LAND CO.	OGLL	-78.69	1-09	-	-78.69	81	-78.69	81	81
13S 37E 35 414	CABOT CARBON CO.	OGLL	-69.44	1-09	-	-69.44	81	-69.44	81	81
13S 38E 02 422	H. W. HARRIS	OGLL	-81.69	1-06	-1.55	-66.75	61	-81.69	81	61,66,71,76,
13S 38E 03 311	H. W. HARRIS	OGLL	-51.97	1-06	-	-51.97	81	-51.97	81	81
13S 38E 04 131	PRESSLEY MONGE	OGLL	-48.13	1-09	-	-46.93	66	-48.13	81	66,71,81
13S 38E 06 124	MRS. ALICE WHITMORE	OGLL	-48.28	1-08	+0.09	-48.28	81	-48.52	66	61,66,71,76,81
13S 38E 06 314	JIM WHEELER	OGLL	-53.84	1-06	-	-43.02	45	-63.40	72	40-65,67-81
13S 38E 07 411	COY LOWE	OGLL	-50.85	1-08	-	-50.85	81	-50.85	81	81
13S 38E 08 312	MOLLIE A. LOWE	OGLL	-63.66	1-09	+8.67	-60.21	61	-72.33	76	61,66,71,76,81
13S 38E 09 331	MRS. P. H. MORICE	OGLL	-72.02	1-09	-3.72	-61.48	61	-77.02	81	61,66,69,71,76,81
13S 38E 11 123	B. A. YOUNG	OGLL	-94.12	1-06	-	-94.12	81	-94.12	81	81
13S 38E 11 414	B. A. YOUNG	OGLL	-95.71	1-06	-	-74.39	66	-95.71	81	66,71,81
13S 38E 12 314	B. A. YOUNG	OGLL	-102.82	1-06	-11.65	-74.38	61	-102.82	81	61,71,76,81
13S 38E 14 332	HENRY BACON	OGLL	-79.94	1-08	+4.74	-73.90	66	-84.68	76	66,71,76,81
13S 38E 14 432	GEORGE HARLAN	OGLL	-82.71	1-09	-	-82.71	81	-82.71	81	81
13S 38E 15 413	R.H. WILLIAMS	OGLL	-72.36	1-08	-0.89	-71.47	76	-72.36	81	76,81
13S 38E 16 413	MARVIN POWELL	OGLL	-60.52	1-08	-1.69	-55.50	61	-60.52	81	61,66,71,76,81
13S 38E 16 433	UNKNOWN	OGLL	-59.31	1-09	-	-59.31	81	-59.31	81	81

A well being pumped
C nearby well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
13S 38E 17 143	IRBY HARRIS	OGLL	-63.04	1-09	-	-63.04	81	-63.04	81	81
13S 38E 17 334	IRBY HARRIS	OGLL	-59.69	1-08	-2.91	-48.30	61	-59.69	81	61,66,70-76,81
13S 38E 18 413	IRBY HARRIS	OGLL	-55.78	1-08	-	-55.78	81	-55.78	81	81
13S 38E 19 311	COY S. LOWE	OGLL	-66.89	1-06	-	-66.13	80	-66.89	81	80-81
13S 38E 19 341	COY LOWE	OGLL	-85.98	1-06	+7.67	-77.65	66	-93.65	76	66,71,76,81
13S 38E 21 113	J. L. REED	OGLL	-62.85	1-08	-2.55	-60.30	76	-62.85	81	61,66,71,76,81
13S 38E 21 433	L. B. WILLIAMS	OGLL	-56.46	1-07	-2.10	-54.36	76	-56.46	81	61,66,71,76,81
13S 38E 22 141	TERRY BACON	OGLL	-66.72	1-07	-1.92	-63.38	71	-66.72	81	71,76,81
13S 38E 23 311	TERRY BACON	OGLL	-71.44	1-06	-	-68.93	80	-71.44	81	80-81
13S 38E 26 222	UNKNOWN	OGLL	-81.53	1-06	-	-64.15	61	-81.53	81	61,66,71,81
13S 38E 26 413	ARD DRILLING CO.	OGLL	-65.97	1-06	-	-65.97	81	-65.97	81	81
13S 38E 27 421	STATE OF NEW MEXICO	OGLL	-64.70	1-07	-	-64.70	81	-64.70	81	76,81
13S 38E 30 141	H. L. LOWE	OGLL	-81.93	1-06	-0.35	-63.30	61	-81.93	81	61,71,76,81
13S 38E 31 213	J. L. REED	OGLL	-77.20	1-06	-5.01	-59.33	61	-77.20	81	61,66,71,76,81
13S 38E 33 113	UNKNOWN	OGLL	-72.39	1-07	-2.03	-70.36	76	-72.39	81	76,81
13S 38E 35 324	H. L. LOWE	OGLL	-83.03	1-07	-	-83.03	81	-83.03	81	81
14S 32E 01 333	BILLY F. GOOD	OGLL	-148.06	2-20	+0.09	-148.06	81	-148.15	76	76,81
14S 32E 06 214	JAY TULK	OGLL	-213.99	2-18	-2.81	-211.18	76	-216.50	61	61,76,81
14S 32E 07 412	JAY TULK	OGLL	-218.19	2-18	-0.90	-217.29	76	-227.82	61	61,66,71,76,81
14S 32E 09 432	BILLY GOOD	OGLL	-187.95	2-19	+0.20	-187.95	81	-195.15	61	61,66,71,76,81
14S 32E 10 323	CACTUS DRILLING CORP.	OGLL	-177.16	2-19	-	-177.16	81	-177.16	81	81
14S 32E 14 121	RHODA HARRIS	OGLL	-143.31	2-20	-3.13	-140.18	76	-143.87	71	59-66,71,76,81
14S 32E 14 223	BILLY FRANK GOOD	OGLL	-156.54	2-20	-.54	-156.00	76	-156.54	81	76,81
14S 32E 20 233	JAY TULK	OGLL	-207.92	2-20	+0.38	-207.30	61	-208.10	76	61,66,71,76,81
14S 32E 21 143	BILLY F. GOOD	OGLL	-205.86	2-19	-0.65	-205.21	76	-217.72	61	61,66,70-76,81
14S 32E 22 422	BILLY GOOD	OGLL	-171.11	2-19	-0.12	-170.99	76	-176.21	61	61,66,70-76,81
14S 32E 27 233	SHELL OIL CO.	OGLL	-180.87	2-19	-0.23	-180.64	76	-180.87	81	76,81
14S 32E 28 224	UNION OIL CO. OF CALIF.	OGLL	-167.76	2-19	-	-167.76	81	-167.76	81	81
14S 32E 28 344	MEDLIN ESTATE	OGLL	-173.38	2-19	-0.39	-172.86	70	-173.45	66	61,66,70-76,81
14S 32E 29 144	MEDLIN ESTATE	OGLL	-216.52	2-18	-	-216.52	81	-218.94	66	61,66,81
14S 32E 31 332	UNION OIL CO. OF CALIF.	OGLL	-219.60	2-19	-	-219.60	81	-219.60	81	81
14S 32E 32 431	UNKNOWN	OGLL	-198.72	2-19	-0.09	-198.49	71	-199.66	66	61,66,71,76,81
14S 32E 33 222	UNION OIL CO. OF CALIF.	OGLL	-170.65	2-19	-	-170.65	81	-170.65	81	81
14S 32E 35 334	JERRY DEAN	OGLL	-155.79	2-19	-0.12	-155.67	76	-155.79	81	71,76,81
14S 32E 36 142	STATE OF NEW MEXICO	OGLL	-156.49	2-19	-7.39	-149.10	76	-156.49	81	76,81
14S 33E 02 121	DUAL DRLG. CO.	OGLL	-87.80	2-20	+0.63	-82.80	81	-86.48	61	61,66,70-76,81
14S 33E 03 413	RAY HILBURN	OGLL	-91.82	2-20	+1.08	-91.82	81	-92.90	76	76,81
14S 33E 07 212	GERALDINE TULK	OGLL	-135.78	2-20	+0.15	-135.78	81	-135.93	76	76,81
14S 33E 12 223	HILLBURN TRUST	OGLL	-72.73	2-20	+0.57	-72.73	81	-73.30	76	71,76,81
14S 33E 13 243	HILBURN TRUST	OGLL	-75.20	2-20	+0.66	-75.20	81	-75.86	76	76,81
14S 33E 14 123	RAY HILBURN	OGLL	-85.60	2-20	+0.27	-85.60	81	-85.87	76	76,81
14S 33E 22 244	HILBURN TRUST	OGLL	-95.92	3-24	+0.42	-95.92	81	-96.34	76	71,76,81
14S 33E 24 424	HILBURN TRUST	OGLL	-78.28	2-20	+0.18	-78.28	81	-102.96	61	61,66,70-76,81
14S 33E 27 223	UNKNOWN	OGLL	-96.00	3-24	+0.35	-96.00	81	-97.25	61	61,66,71,76,81
14S 33E 28 413	AMERADA OIL CO.	OGLL	-106.58	3-24	+0.30	-106.58	81	-107.54	61	61,66,71,76,81
14S 33E 33 443	AMERADA OIL CO.	OGLL	-106.19	1-28	+0.49	-106.19	81	-107.14	61	61,66,71,76,81
14S 33E 35 133	AMERADA PETROL. CORP.	OGLL	-99.98	1-06	+0.58	-99.98	81	-103.46	79	60-79,81
14S 33E 36 144	JOHNNY ETCHEVERRY	OGLL	-87.45	1-28	-	-86.54	61	-87.50	71	61,66,71,76,81
14S 34E 07 134	TROY FORT	OGLL	-71.40	2-06	+0.41	-71.40	81	-75.99	61	61,71,76,81
14S 34E 08 123	TROY FORT	OGLL	-65.52	2-06	+0.35	-65.52	81	-69.45	61	61,66,71,76,81
14S 34E 09 114	TROY FORT	OGLL	-56.50	2-06	+0.12	-56.50	81	-58.15	61	61,66,71,76,81
14S 34E 10 220	UNKNOWN	OGLL	-47.00	2-06	-	-47.00	81	-47.00	81	76,81
14S 34E 11 123	W. A. ANDERSON	OGLL	-43.42	2-06	+0.18	-43.42	81	-44.00	61	61,66,71,76,81
14S 34E 12 111	W. A. ANDERSON	OGLL	-43.24	2-06	-	-43.24	81	-43.24	81	81
14S 34E 14 323	ROBINSON BROTHERS	OGLL	-46.73	2-06	+0.05	-46.73	81	-46.78	76	76,81
14S 34E 16 234	TROY FORT	OGLL	-54.33	2-06	+0.14	-54.33	81	-56.93	61	61,65,71,76,81
14S 34E 17 334	TROY FORT	OGLL	-66.60	2-06	+0.04	-66.60	81	-69.17	61	61,66,71,76,81
14S 34E 18 221	TROY FORT	OGLL	-70.79	2-06	-	-70.79	81	-71.29	66	61,66,71,76,81
14S 34E 21 242	TROY FORT	OGLL	-58.60	2-06	-0.67	-57.93	76	-59.67	61	61,66,71,76,81
14S 34E 24 431	W. A. ANDERSON	OGLL	-50.68	2-06	-	-50.15	61	-50.68	81	61,76,81
14S 34E 25 332	W. A. ANDERSON	OGLL	-52.39	2-06	-	-52.39	81	-52.89	61	61,66,71,76,81
14S 34E 27 223	TROY FORT	OGLL	-57.24	2-06	+0.17	-57.24	81	-57.41	76	76,81
14S 34E 29 433	JOHNNY ETCHEVERRY	OGLL	-71.48	1-28	-	-71.48	81	-71.48	81	61,76,81
14S 34E 34 221	TROY FORT	OGLL	-57.99	2-06	+0.50	-57.99	81	-60.16	61	61,66,71,76,81
14S 35E 03 432	CLARA ELKAN	OGLL	-46.00	2-05	-0.64	-45.36	76	-48.55	61	61,66,71,76,81
14S 35E 04 233	RAYMOND SPEARS	OGLL	-43.67	2-05	-0.99	-42.37	61	-43.67	81	61,66,71,76,81
14S 35E 05 111	HILBURN & SPEARS	OGLL	-43.76	2-05	+0.39	-43.76	81	-46.67	66	61,66,71,76,81
14S 35E 06 211	HILBURN & SPEARS	OGLL	-41.30	1-07	+3.45	-41.30	81	-46.40	75	75-81
14S 35E 07 343	W. A. ANDERSON	OGLL	-41.95	2-05	+1.32	-41.95	81	-44.74	61	61,76,81
14S 35E 08 413	C. E. HILBURN	OGLL	-35.80	2-05	-0.60	-35.12	66	-36.89	61	61,66,71,76,81
14S 35E 12 111	J. M. BROWN	OGLL	-57.56	2-05	-1.76	-50.62	61	-60.96	71	61,66,70-76,81
14S 35E 13 232	UNKNOWN	OGLL	-63.48	2-05	-	-63.48	81	-63.48	81	81
14S 35E 14 143	J. L. KIDD	OGLL	-58.12	2-05	-4.01	-54.11	76	-62.62	66	61,66,71,76,81
14S 35E 14 212	J. L. KIDD	OGLL	-62.73	2-05	-5.71	-57.02	76	-62.73	81	61,66,71,76,81
14S 35E 15 211	BILL IRWIN	OGLL	-41.90	2-05	+4.77	-41.90	81	-51.61	66	61,66,71,76,81
14S 35E 16 311	C. E. HILBURN	OGLL	-34.11	2-05	-1.44	-32.67	76	-34.71	66	61,66,71,76,81
14S 35E 20 223	UNKNOWN	OGLL	-41.05	2-04	-	-41.05	81	-41.05	81	81
14S 35E 21 143	C. E. HILBURN	OGLL	-35.66	2-04	-2.36	-31.80	61	-35.66	81	61,66,71,76,81
14S 35E 21 222	W. A. ANDERSON	OGLL	-43.99	2-05	-	-43.99	81	-43.99	81	81
14S 35E 23 121	UNKNOWN	OGLL	-51.72	2-05	-	-51.72	81	-51.72	81	81

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
14S 35E 23 313	PRORST AND ANDERSON	OGLL	-43.50	1-07	-3.71	-37.56	67	-44.17	78	54-81
14S 35E 25 223	W.J. WIGGINS	OGLL	-64.92	1-07	-0.04	-43.30	50	-69.50	78	49-81
14S 35E 26 332	LAWSON MONTEITH	OGLL	-48.09	2-04	-	-48.09	81	-48.09	81	81
14S 35E 28 312	UNKNOWN	OGLL	-41.17	2-04	-	-41.17	81	-41.17	81	81
14S 35E 28 434	W. A. ANDERSON	OGLL	-43.25	2-04	-1.26	-41.99	76	-43.25	81	61,66,71,76,81
14S 35E 29 312	W. A. ANDERSON	OGLL	-44.64	2-04	-1.13	-42.74	61	-44.64	81	61,66,71,76,81
14S 35E 30 132	W.A. ANDERSON	OGLL	-50.30	1-07	-0.24	-43.81	67	-52.86	78	39-69,71-81
14S 35E 32 322	R. R. JONES	OGLL	-43.68	2-04	-0.97	-42.71	76	-44.42	61	61,66,71,76,81
14S 35E 33 433	W.A. ANDERSON	OGLL	-45.72	1-07	+0.04	-39.65	57	-46.60	74	29-81
14S 35E 34 421	IRI SERVICE DRG. CO.	OGLL	-45.96	2-04	-	-45.96	81	-45.96	81	81
14S 35E 35 231	GRAHAM	OGLL	-53.24	2-04	-	-44.12	61	-53.24	81	61,66,69,71,81
14S 35E 36 231	J. L. REED	OGLL	-50.69	2-04	-0.29	-49.68	61	-51.35	66	61,66,71,76,81
14S 35E 36 434	J. L. REED	OGLL	-52.78	2-04	-	-52.78	81	-52.78	81	81
14S 36E 01 333	E. M. PATTERSON	OGLL	-85.04	1-30	+3.25	-65.02	61	-88.29	76	61,66,71,76,81
14S 36E 01 434	LEA FARMS, INC.	OGLL	-84.45	1-30	-	-84.45	81	-84.45	81	81
14S 36E 02 113	LESLIE ESTEP	OGLL	-91.73	1-07	-4.13	-48.44	50	-91.73	81	49-81
14S 36E 02 311	ELVIS JONES	OGLL	-84.90	2-04	-	-84.90	81	-84.90	81	81
14S 36E 02 411	DAN PUCKETT	OGLL	-92.41	1-30	-8.18	-70.33	61	-92.41	81	61,66,71,76,81
14S 36E 03 311	GEO. O. SHETTLE	OGLL	-86.17	1-30	-3.59	-69.62	61	-86.17	81	61,66,71,76,81
14S 36E 04 212	JAMES A. FOSTER	OGLL	-84.17	1-30	-3.73	-70.08	61	-84.17	81	61,66,71,76,81
14S 36E 05 133	S. A. RICHARDSON	OGLL	-64.30	1-30	-1.84	-55.51	61	-64.30	81	61,66,71,76,81
14S 36E 06 211	S. A. RICHARDSON	OGLL	-59.36	1-30	-0.94	-51.27	61	-59.36	81	61,66,69,71,76,81
14S 36E 06 412	JAMES RICHARDSON	OGLL	-60.85	1-07	-0.71	-39.03	44	-62.23	77	39-44,46-55,57-81
14S 36E 07 433	WHARTON DRILLING	OGLL	-62.46	2-03	-	-62.46	81	-62.46	81	81
14S 36E 08 121	SANDRA BARBEE	OGLL	-66.75	1-30	+3.56	-56.40	61	-70.31	76	61,66,71,76,81
14S 36E 08 443	PERSCHBACHER	OGLL	-72.14	2-03	-	-72.14	81	-72.14	81	81
14S 36E 09 111	KARL CAYTON	OGLL	-75.91	1-07	+0.49	-38.36	44	-77.65	78	39-81
14S 36E 10 211	KARL CAYTON	OGLL	-88.52	1-07	-4.16	-47.98	49	-88.79	80	49-81
14S 36E 10 331	L. D. PATMON	OGLL	-78.10	1-30	-1.16	-63.07	61	-78.10	81	61,66,71,76,81
14S 36E 12 323	UNKNOWN	OGLL	-76.94	1-30	-	-76.94	81	-76.94	81	81
14S 36E 13 331	UNKNOWN	OGLL	-75.11	2-04	-	-75.11	81	-75.11	81	81
14S 36E 15 211	BUDDY AND ARTHUR TAYLOR	OGLL	-84.09	1-30	-6.77	-59.38	61	-84.09	81	61,66,71,76,81
14S 36E 15 444	UNKNOWN	OGLL	-69.80	2-04	-	-69.80	81	-69.80	81	81
14S 36E 17 311	SANDRA BARBEE	OGLL	-64.38	1-30	-1.66	-52.20	61	-64.38	81	61,66,71,76,81
14S 36E 19 412	UNKNOWN	OGLL	-62.62	2-03	-	-62.62	81	-62.62	81	81
14S 36E 21 111	J. W. MAYO	OGLL	-66.09	1-07	-1.28	-42.69	49	-66.45	78	49-81
14S 36E 21 321	CURTIS PATTERSON	OGLL	-67.30	1-30	+4.10	-53.82	61	-71.40	76	61,66,71,76,81
14S 36E 22 411	E. C. LACKEY	OGLL	-68.15	2-04	-3.61	-54.75	61	-68.15	81	61,66,71,76,81
14S 36E 24 343	FRANK BILBERRY	OGLL	-75.52	2-03	-4.35	-60.55	61	-75.52	81	61,66,71,76,81
14S 36E 26 422	L. G. CAUDILL	OGLL	-76.86	2-03	+1.78	-61.94	61	-78.64	76	61,66,71,76,81
14S 36E 27 311	UNKNOWN	OGLL	-73.77	2-03	-	-73.77	81	-73.77	81	81
14S 36E 30 411	SANDRA LEE P. BARBEE	OGLL	-59.28	2-03	-	-59.28	81	-59.28	81	81
14S 36E 32 121	E.T. HOWELL	OGLL	-66.77	1-07	-0.40	-53.58	49	-70.09	71	49-66,68-81
14S 36E 32 331	UNKNOWN	OGLL	-63.30	2-03	-	-63.30	81	-63.30	81	81
14S 36E 33 133	EDWIN H. WARD	OGLL	-81.95	1-07	-2.19	-56.92	50	-81.95	81	49-81
14S 36E 33 433	L. G. CAUDILL, JR.	OGLL	-80.00	2-03	-	-80.00	81	-80.00	81	81
14S 36E 34 111	BOYD BROS.	OGLL	-84.58	2-03	-	-84.58	81	-84.58	81	81
14S 36E 34 431	J. P. CAUDILL	OGLL	-77.90	2-03	-4.32	-69.91	66	-77.90	81	66,71,76,81
14S 36E 35 111	ALEXANDER BROS.	OGLL	-74.75	1-07	-5.68	-68.67	80	-74.75	81	74-81
14S 36E 35 331	ALEXANDER BROS.	OGLL	-84.90	2-03	-	-67.05	61	-84.90	81	51,66,78,81
14S 37E 01 122	GARLAND BROWN	OGLL	-84.60	3-06	-	-58.36	61	-84.60	81	61,81
14S 37E 01 311	WALTER DICKINSON	OGLL	-97.09D	3-05	-16.63	-70.20	61	-80.46	76	61,66,71,76,81
14S 37E 02 121	HULDA HOBBS HEIDEL	OGLL	-75.40	1-07	-3.42	-67.17	80	-75.40	81	71,76,
14S 37E 03 114	HOBBS AND HEIDEL	OGLL	-76.89	3-12	-10.82	-44.81	57	-104.85	77	52-78,81
14S 37E 03 332	HULDA H. HEIDEL	OGLL	-76.47	3-06	-	-76.47	81	-76.47	81	81
14S 37E 04 311	HEIDEL AND HOBBS	OGLL	-73.26	3-05	-3.20	-52.71	61	-73.26	81	61,66,71,76,81
14S 37E 05 211	S. G. KNOLL & SONS	OGLL	-78.15	1-07	-7.23	-13.30	77	-80.06	80	49-81
14S 37E 05 313	E. L. HARRISON	OGLL	-82.80	3-05	+1.17	-62.91	61	-83.97	76	61,66,69,71,76,81
14S 37E 06 111	E.L. HARRISON	OGLL	-87.54	1-07	+0.94	-37.38	49	-138.61	77	49-62,66,71,76-81
14S 37E 06 411	G. T. HANNERS	OGLL	-91.09	3-10	-10.03	-66.02	61	-91.09	81	61,66,71,76,81
14S 37E 07 311	E.L. HARBISON	OGLL	-90.42	1-07	-12.92	-42.82	49	-299.93	77	49-81
14S 37E 08 111	E. L. HARRISON	OGLL	-78.09	1-07	-5.59	-37.93	50	-78.09	81	49-81
14S 37E 09 341	C. A. FORT	OGLL	-77.04A	3-05	-	-53.23	61	-53.23	61	61,66,71,76,81
14S 37E 12 311	R. L. SPEARS	OGLL	-104.15	3-05	-	-75.28	61	-104.15	81	61,70-76,81
14S 37E 13 213	ESSIE V. POUNDS	OGLL	-97.14	3-05	-8.72	-66.20	61	-92.14	81	61,66,71,76,81
14S 37E 13 311	JERRY W. CAMP	OGLL	-97.54	1-07	-9.24	-35.57	49	-97.54	81	49-81
14S 37E 16 412	D. O. WALKER	OGLL	-78.27	1-07	-4.84	-19.65	77	-78.27	81	39-81
14S 37E 19 111	A.B. HENNINGTON	OGLL	-70.85	1-07	-3.35	-41.15	50	-70.85	81	49-42,64-81
14S 37E 19 444	UNKNOWN	OGLL	-83.05	3-06	-	-83.05	81	-83.05	81	81
14S 37E 20 111	LYLE ANDERSON	OGLL	-73.91	3-05	-6.38	-56.60	61	-73.91	81	61,66,71,76,81
14S 37E 20 412	LEE MASSEY	OGLL	-82.64	1-07	-5.85	-7.55	77	-82.64	81	39-68,70-81
14S 37E 21 111	LENA JO FULTON	OGLL	-78.49	3-05	-4.30	-58.29	61	-78.49	81	61,66,71,76,81
14S 37E 21 211	J. V. MC KAY	OGLL	-82.90	3-06	-	-82.90	81	-82.90	81	81
14S 37E 22 211	ROY P. & C. A. FORT	OGLL	-87.07	3-06	-4.75	-63.01	61	-87.07	81	61,66,70-76,81
14S 37E 24 111	JOE N. MC CRAW	OGLL	-96.83	3-06	-	-66.16	61	-96.83	81	61,66,70-71,81
14S 37E 25 111	CARL E. MC CRAW	OGLL	-86.32	3-06	-	-58.60	61	-86.32	81	61,66,71,81
14S 37E 25 312	CARL E. MC CRAW	OGLL	-75.64	3-11	-	-50.14	61	-75.64	81	61,81
14S 37E 27 211	CROWDER & PENNY	OGLL	-81.32	3-11	-	-56.33	61	-81.32	81	61,66,71,81
14S 37E 27 311	JOE MC CRAW	OGLL	-85.67	1-07	-7.99	-34.68	48	-85.67	81	49-81
14S 37E 27 423	MOBIL OIL CO.	OGLL	-74.02	3-11	-	-74.02	81	-74.02	81	81

A well being pumped
D nearby well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
14S 37E 28 211	ODELL LOWE	OGLL	-85.12	3-05	+0.40	-75.07	66	-85.52	76	66,70-76,81
14S 37E 28 311	JACK SCHOGGINS	OGLL	-84.88	3-10	-	-84.88	81	-84.88	81	81
14S 37E 29 211	JACK O. SCHOGGINS	OGLL	-85.63	3-06	-8.05	-61.73	61	-85.63	81	61,66,70-76,81
14S 37E 29 331	A. L. WALKER	OGLL	-75.39	3-11	-2.43	-59.25	61	-75.39	81	61,66,70-76,81
14S 37E 30 341	AMANDA MILLER	OGLL	-71.07	3-10	-5.89	-56.35	61	-71.07	81	61,66,71,76,81
14S 37E 31 331	AMANDA MILLER	OGLL	-77.30	1-07	-2.30	-43.59	49	-78.20	77	49-72,74-81
14S 37E 32 411	WILLIAM JACKSON	OGLL	-73.38	3-11	-	-73.38	81	-73.38	81	81
14S 37E 33 212	ODELL LOWE	OGLL	-79.17	3-10	-	-58.76	61	-79.17	81	61,66,71,81
14S 37E 34 213	TRINITY DRILLING CO.	OGLL	-70.94	3-11	-	-70.94	81	-70.94	81	81
14S 37E 34 311	CROWDER & PENNY	OGLL	-76.25	3-10	-	-52.59	61	-76.25	81	61,66,81
14S 37E 35 324	DICKENSON MINORS EST.	OGLL	-57.43	3-11	-	-41.51	61	-57.43	81	61,66,71,76,81
14S 37E 36 113	B. H. POPE	OGLL	-66.83	3-11	-5.76	-55.64	71	-66.83	81	66,71,76,81
14S 37E 36 413	B. H. POPE	OGLL	-60.37	3-11	-5.37	-43.03	61	-60.37	81	61,66,71,76,81
14S 38E 02 411	LOWE RANCH	OGLL	-77.71R	3-05	-	-	-	-	-	81
14S 38E 03 321	BRADY LOWE	OGLL	-68.63	3-03	-	-68.63	81	-68.63	81	81
14S 38E 05 122	JOHNIE M. LEWIS	OGLL	-84.47	1-07	-4.12	-62.92	61	-84.47	81	61,66,71,76,81
14S 38E 05 313	UNKNOWN	OGLL	-65.59	3-03	-6.84	-54.50	70	-65.59	81	66,70,76,81
14S 38E 06 211	MARY LOVE	OGLL	-76.89	3-03	-	-76.89	81	-76.89	81	55,81
14S 38E 07 113	BRIDEL AND TAYLOR	OGLL	-94.19	1-07	-15.50	-40.73	50	-94.19	81	50-72,74-81
14S 38E 09 211	RUTH ELMORE	OGLL	-94.42A	3-04	-	-	-	-	-	81
14S 38E 09 222	JAMES W. SPEARS	OGLL	-76.42	3-04	+1.41	-68.07	61	-77.83	76	61,66,71,76,81
14S 38E 10 223	J. W. SPEARS	OGLL	-70.18	3-04	-	-70.18	81	-70.18	81	81
14S 38E 14 111	C. R. SPEARS	OGLL	-64.30	1-07	-1.30	-55.58	61	-64.30	81	61,66,71,76,
14S 38E 14 341	E. R. YARBO	OGLL	-72.89	3-04	-	-72.89	81	-72.89	81	81
14S 38E 16 123	SAM B. SAVAGE	OGLL	-64.77	3-05	-3.08	-56.00	61	-64.77	81	61,66,71,76,81
14S 38E 17 212	C. R. SPEARS	OGLL	-64.42	3-03	-4.86	-55.97	71	-64.42	81	61,66,71,76,81
14S 38E 18 343	COY LOWE	OGLL	-82.01	3-03	-	-61.76	66	-82.01	81	61,66,71,81
14S 38E 19 311	JAMES L. TOWNS	OGLL	-83.14	3-04	-7.13	-58.30	61	-83.14	81	61,66,70-76,81
14S 38E 20 112	H. L. LOWE	OGLL	-69.71	3-03	-4.38	-51.80	61	-69.71	81	61,66,70-76,81
14S 38E 20 313	H. L. LOWE	OGLL	-71.11	3-04	-4.19	-58.08	66	-71.11	81	61,66,70-76,81
14S 38E 21 212	W. D. BARNETT	OGLL	-63.81	3-03	-3.73	-53.55	61	-63.81	81	61,66,70-76,81
14S 38E 21 313	CLAUDE COX	OGLL	-64.29	1-07	-6.73	-32.48	49	-116.37	77	49-81
14S 38E 23 141	E. R. YARBRO	OGLL	-74.79	3-04	-1.18	-60.83	61	-74.79	81	61,66,71,76,81
14S 38E 26 121	W. P. COOKE	OGLL	-76.08	3-04	+3.64	-64.60	61	-79.72	76	61,66,71,76,81
14S 38E 26 311	CAVE ESTATE	OGLL	-74.83	3-04	-6.98	-66.92	71	-74.83	81	71,76,81
14S 38E 26 313	HAWTHORNE BROS.	OGLL	-73.55	3-04	-3.24	-57.08	61	-73.55	81	61,66,70,73,76,81
14S 38E 26 342	HAWTHORNE BROS.	OGLL	-81.85	3-04	-	-81.85	81	-81.85	81	81
14S 38E 27 213	GUY CAVE	OGLL	-67.44	3-03	+3.35	-57.57	61	-70.79	76	61,66,71,76,81
14S 38E 31 111	RAYBURN HOUCHIN	OGLL	-67.35	1-07	-1.44	-37.45	50	-69.32	78	48-74,76-81
14S 38E 31 222	DICKINSON CATTLE CO.	OGLL	-69.82	3-03	-4.10	-55.56	61	-69.82	81	61,66,69,71,76,81
14S 38E 31 324	UNKNOWN	OGLL	-59.18	3-03	-	-59.18	81	-59.18	81	81
14S 38E 33 111	J. R. AND J. D. DORAN	OGLL	-63.37	3-03	-4.99	-49.74	61	-63.37	81	61,66,71,76,81
14S 38E 33 334	DICKINSON CATTLE CO.	OGLL	-70.73	3-03	-	-70.73	81	-70.73	81	81
14S 38E 34 311	MRS. ROXIE BARTHOLOMEW	OGLL	-89.36	3-03	-22.11	-60.29	66	-89.36	81	61,66,70-76,81
14S 38E 35 411	M. D. BOULTER	OGLL	-75.72	3-04	-1.67	-55.09	66	-75.72	81	61,66,70-76,81
15S 32E 03 441	SANTA FE ENERGY CO.	OGLL	-178.89	1-27	-	-178.89	81	-178.89	81	81
15S 32E 04 342	J. E. STEVENS	OGLL	-192.64	1-27	-0.12	-192.40	71	-192.90	66	66,70-76,81
15S 32E 05 124	J. E. STEVENS	OGLL	-206.74	1-27	-0.58	-206.14	61	-207.13	66	61,66,71,76,81
15S 32E 05 443	CACTUS DRILLING CORP.	OGLL	-213.33	1-27	-	-213.33	81	-213.33	81	81
15S 32E 06 123	J. E. STEVENS	OGLL	-221.35	1-27	+0.01	-221.26	71	-222.07	66	61,66,71,76,81
15S 32E 06 223	TEXACO	OGLL	-182.62	1-06	+5.78	-182.62	81	-189.13	67	61,65-79,81
15S 32E 07 412	MEDLIN RANCH	OGLL	-224.75	1-27	-0.53	-223.72	76	-224.75	81	76,81
15S 32E 14 112	UNKNOWN	OGLL	-168.75	1-29	-0.47	-168.28	76	-168.75	81	61,66,71,76,81
15S 32E 16 211	MILLARD EIDSON	OGLL	-188.10	1-29	-0.32	-187.78	76	-188.46	61	61,66,71,76,81
15S 32E 16 222	UNKNOWN	OGLL	-186.27	1-29	-0.35	-185.92	76	-186.47	66	61,66,71,76,81
15S 32E 16 431	EIDSON RANCH	OGLL	-202.78	1-29	-0.42	-201.86	76	-202.78	81	76,81
15S 32E 17 333	EIDSON RANCH	OGLL	-211.90	1-29	-0.94	-209.19	71	-211.90	81	71,76,81
15S 32E 20 330	WATER FLOOD ASSN, INC.	OGLL	-237.37	1-29	-	-237.37	81	-237.37	81	81
15S 32E 23 231	MILLARD EIDSON	OGLL	-148.00	1-28	-1.75	-146.25	76	-148.00	81	71,76,81
15S 32E 24 113	EIDSON RANCH	OGLL	-151.73	1-28	-0.65	-151.08	76	-151.73	81	76,81
15S 32E 28 231	EIDSON RANCH	OGLL	-220.13	1-28	-4.13	-216.00	76	-220.13	81	76,81
15S 32E 29 141	ATLANTIC RICHFIELD CO.	OGLL	-237.83	1-29	-	-237.83	81	-237.83	81	81
15S 32E 29 310	ATLANTIC RICHFIELD CO.	OGLL	-238.80	1-29	-	-238.80	81	-238.80	81	81
15S 32E 29 444	YUCCA WATER CO.	OGLL	-234.46	1-29	-3.80	-220.58	61	-234.46	81	61,66,71,76,81
15S 32E 31 332	ATLANTIC RICHFIELD CO.	OGLL	-251.69	1-28	-	-251.69	81	-251.69	81	81
15S 32E 32 213	TEX. PACIFIC COAL & OIL	OGLL	-237.42	1-28	-2.57	-234.85	76	-237.42	81	76,81
15S 32E 32 333	SINCLAIR OIL & GAS CO.	OGLL	-235.08	1-28	-	-235.08	81	-235.08	81	81
15S 32E 32 443	SINCLAIR OIL & GAS CO.	OGLL	-213.17	1-28	-	-213.17	81	-213.17	81	81
15S 32E 33 444	UNKNOWN	OGLL	-209.34	1-28	-	-199.80	61	-209.34	81	61,66,76,81
15S 32E 34 333	CAPROCK WATER CO.	OGLL	-209.35	1-28	-	-209.35	81	-209.35	81	81
15S 32E 35 333	CITY OF CARLSBAD	OGLL	-198.15	1-28	-	-181.65	66	-198.15	81	66,81
15S 32E 35 433	CAPROCK WATER CO.	OGLL	-197.56	1-28	-8.69	-174.48	61	-197.56	81	61,76,81
15S 32E 36 333	CITY OF CARLSBAD	OGLL	-182.44	1-28	-	-182.44	81	-182.44	81	76,81
15S 33E 01 113	SHARP DRILLING CO.	OGLL	-89.72	1-23	-	-89.72	81	-89.72	81	81
15S 33E 02 114	JOHN EICHEVERRY	OGLL	-96.49	1-23	+0.28	-94.66	61	-97.11	71	61,66,71,76,81
15S 33E 03 211	GILLESPF	OGLL	-104.83	1-23	-	-104.83	81	-104.83	81	81
15S 33E 04 143	SAMS & DEAN CATTLE CO.	OGLL	-112.77	1-23	-	-112.77	81	-112.77	81	81
15S 33E 07 242	SAMS & DEAN	OGLL	-122.03	1-23	-0.52	-121.51	76	-122.03	81	61,71,76,81
15S 33E 09 234	SAMS & DEAN	OGLL	-108.28	1-23	+0.09	-108.28	81	-109.98	61	61,66,71,76,81
15S 33E 09 443	CITIES SERVICE	OGLL	-110.70	1-23	+0.16	-110.70	81	-111.66	61	61,66,71,76,81

A well being pumped
B well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
15S 33E 10 212	ETCHEVERY	OGLL	-102.66	1-23	+0.19	-102.66	81	-103.17	71	61,66,71,76,81
15S 33E 10 321	SAMS & DEAN	OGLL	-106.86	1-23	+0.25	-106.86	81	-107.62	61	61,66,71,76,81
15S 33E 13 222	ETCHEVERRY RANCH	OGLL	-79.33	1-22	-	-79.33	81	-79.33	81	71,76,81
15S 33E 14 134	JOHN ETCHEVERRY	OGLL	-104.77	1-06	-4.83	-99.94	76	-104.77	81	65-68,70-71,75-77,81
15S 33E 17 231	SAMS & DEAN	OGLL	-120.47	1-23	+0.30	-120.47	81	-120.77	76	61,66,71,76,81
15S 33E 21 124	DAISY CLAYTON	OGLL	-111.52	1-23	-0.16	-111.36	76	-111.52	81	76,81
15S 33E 21 343	JERRY DEAN	OGLL	-117.84	1-23	-0.07	-117.77	76	-118.30	66	61,66,71,76,81
15S 33E 22 241	STANDARD OIL	OGLL	-104.43	1-23	+0.29	-104.43	81	-104.72	76	76,81
15S 33E 22 333	T.C.H. RANCH, INC.	OGLL	-112.14	1-23	-	-112.14	81	-112.14	81	81
15S 33E 25 232	JOHN ETCHEVERRY	OGLL	-83.14	1-23	+0.30	-82.94	73	-83.42	74	66,71,73-76,81
15S 33E 27 444	DAISY CHAMBER CLAYTON	OGLL	-99.07	1-23	-0.34	-98.73	76	-99.07	81	61,66,76,81
15S 33E 29 321	MILLARD ETDSON	OGLL	-125.16	1-23	-1.10	-124.06	76	-125.16	81	61,66,71,76,81
15S 33E 29 331	ETDSON RANCH	OGLL	-135.77	1-23	-1.50	-134.27	76	-135.77	81	76,81
15S 33E 30 423	MARCUM DRILLING CO.	OGLL	-144.80	1-23	-	-144.80	81	-144.80	81	81
15S 33E 31 344	CITY OF CARLSBAD	OGLL	-164.42	1-23	-	-164.42	81	-164.42	81	81
15S 34E 03 421	DAISY CHAMBER CLAYTON	OGLL	-116.42	1-23	-3.18	-113.24	76	-116.42	81	76,81
15S 34E 03 412	TROY FORT	OGLL	-59.34	1-22	-	-59.34	81	-60.43	71	71,76,81
15S 34E 04 143	JOHNNY ETCHEVERRY	OGLL	-67.43	1-22	-	-67.43	81	-67.43	81	81
15S 34E 05 223	JOHN ETCHEVERRY	OGLL	-71.44	1-20	-	-71.44	81	-72.10	61	61,66,71,76,81
15S 34E 06 311	JOHN ETCHEVERRY	OGLL	-83.910	1-22	-	-	-	-	-	61,66,71,76,81
15S 34E 07 442	PERLO ETCHEVERRY	OGLL	-77.85	1-22	-	-77.85	81	-77.85	81	61,66,71,76,81
15S 34E 09 133	JOHN ETCHEVERRY	OGLL	-67.94	1-22	0.00	-67.94	76	-67.94	76	76,81
15S 34E 11 111	GRAHAM & RODDY	OGLL	-57.51	1-22	-	-57.51	81	-60.85	61	61,66,71,76,81
15S 34E 11 413	GRAHAM & RODDY	OGLL	-56.34	1-22	+0.45	-56.34	81	-58.25	61	61,66,71,76,81
15S 34E 12 111	OSCAR ETLAND	OGLL	-56.95	1-22	+0.34	-56.95	81	-59.13	61	61,66,71,76,81
15S 34E 12 323	GRAHAM & RODDY	OGLL	-57.75	1-22	+1.73	-57.75	81	-60.31	61	61,66,71,76,81
15S 34E 13 121	HEATHINGTON & MUDTEX	OGLL	-56.24	1-22	-	-56.24	81	-56.24	81	81
15S 34E 14 113	TROY FORT	OGLL	-58.90	1-22	+0.35	-58.90	81	-59.25	76	76,81
15S 34E 15 421	TROY FORT	OGLL	-61.98	1-22	+0.33	-61.98	81	-64.00	66	61,66,71,76,81
15S 34E 17 443	JOHN ETCHEVERRY	OGLL	-70.57	1-22	-	-70.57	81	-70.57	81	61,66,71,76,81
15S 34E 18 434	JOHN ETCHEVERRY	OGLL	-76.90	1-22	-	-76.90	81	-78.76	61	61,66,71,76,81
15S 34E 22 344	CASWELL BROS., INC.	OGLL	-60.71	1-21	-	-60.71	81	-60.71	81	81
15S 34E 24 211	TROY FORT	OGLL	-58.90	1-22	-0.13	-58.77	76	-60.48	61	61,66,71,76,81
15S 34E 25 311	CASWELL	OGLL	-57.66	1-21	-0.12	-57.19	71	-57.94	61	61,66,71,76,81
15S 34E 26 144	DAISY CLAYTON	OGLL	-55.51	1-21	+0.09	-55.51	81	-59.06	61	61,66,71,76,81
15S 34E 26 211	T.C.H. RANCH	OGLL	-58.02	1-21	-	-58.02	81	-58.02	81	76,81
15S 34E 26 324	CASWELL	OGLL	-56.28	1-21	-0.06	-56.22	76	-56.68	66	61,66,71,76,81
15S 34E 27 441	CASWELL	OGLL	-60.37	1-21	+0.06	-60.37	81	-61.61	66	61,66,71,76,81
15S 34E 28 122	JOHNNY ETCHEVERRY	OGLL	-62.90	1-22	-	-62.90	81	-62.90	81	81
15S 34E 28 333	R. C. LOVE	OGLL	-67.80	1-21	+0.38	-67.80	81	-69.07	61	61,66,71,76,81
15S 34E 28 412	CASWELL BROS., INC.	OGLL	-61.02	1-21	-	-61.02	81	-61.02	81	81
15S 34E 32 111	DAISY CLAYTON	OGLL	-65.49	1-21	+7.29	-65.49	81	-77.75	61	61,66,71,76,81
15S 34E 33 143	CLAYTON	OGLL	-67.52	1-21	-0.51	-67.01	76	-70.61	61	61,66,71,76,81
15S 34E 34 331	DALCO OIL CO.	OGLL	-64.56	1-21	-	-64.56	81	-64.56	81	81
15S 34E 35 312	CASWELL	OGLL	-56.23	1-21	-	-56.23	81	-59.95	30	29-31,61,66,71,76,81
15S 34E 36 142	MRS. BERNICE HAMILTON	OGLL	-55.81	1-21	-0.22	-55.59	76	-56.90	66	61,66,71,76,81
15S 34E 36 443	TRI STATE DRG. CO.	OGLL	-56.46	1-21	-	-56.48	81	-56.48	81	81
15S 35E 01 123	J. L. HAMPTON	OGLL	-50.28	1-20	-	-50.28	81	-50.28	81	81
15S 35E 01 444	J. L. HAMPTON	OGLL	-53.07	1-20	-	-53.07	81	-53.07	81	81
15S 35E 03 111	R. F. FIELD	OGLL	-45.99	1-20	-	-45.99	81	-51.04	71	71,76,81
15S 35E 03 124	R. R. JONES	OGLL	-46.23	1-20	-1.44	-43.07	71	-46.23	81	61,66,71,76,81
15S 35E 03 442	R. R. JONES	OGLL	-45.33	1-20	-2.14	-39.51	66	-45.33	81	66,70-76,81
15S 35E 04 314	R. R. JONES	OGLL	-44.92	1-20	-1.33	-41.47	61	-44.92	81	61,66,76,81
15S 35E 07 242	MARY STANSELL	OGLL	-51.56	1-20	-2.39	-49.17	76	-52.96	61	61,66,71,76,81
15S 35E 08 411	R. K. FIELD	OGLL	-45.16	1-20	-	-45.16	81	-45.16	81	81
15S 35E 10 324	MARY STANSELL	OGLL	-46.70	1-20	-1.80	-39.04	66	-46.70	81	61,66,71,76,81
15S 35E 11 441	CHARSON BROS. ESTATE	OGLL	-52.75	1-16	-5.01	-39.83	61	-52.75	81	61,66,71,76,81
15S 35E 12 311	SAM MASSEY	OGLL	-56.99	1-16	+7.29	-48.04	71	-64.78	76	71,76,81
15S 35E 13 232	SAM MASSEY	OGLL	-57.31	1-16	-3.57	-46.72	61	-57.31	81	61,66,71,76,81
15S 35E 15 144	MARY STANSELL	OGLL	-44.62	1-20	-1.49	-39.78	61	-44.62	81	61,66,71,76,81
15S 35E 16 231	MARY STANSELL	OGLL	-43.82	1-20	-1.83	-38.87	61	-43.82	81	61,66,71,76,81
15S 35E 17 411	UNKNOWN	OGLL	-50.71	1-20	-	-50.71	81	-50.71	81	81
15S 35E 19 412	FORD	OGLL	-50.53	1-21	-0.67	-49.75	61	-50.53	81	61,66,71,76,81
15S 35E 20 413	MARTIN ARREGUY	OGLL	-56.11	1-21	-0.98	-51.46	61	-56.11	81	61,66,71,76,81
15S 35E 21 114	LEA CO. ELECT. COOP	OGLL	-58.150	1-21	-9.87	-43.91	61	-51.35	71	61,66,71,76,81
15S 35E 22 323	UNKNOWN	OGLL	-50.80	1-16	-	-50.80	81	-50.80	81	81
15S 35E 22 441	JERRY CLAYTON	OGLL	-49.15	1-16	-	-49.15	81	-49.15	81	66,71,81
15S 35E 26 212	UNKNOWN	OGLL	-52.19	1-16	-	-52.19	81	-52.19	81	81
15S 35E 27 423	COSTAL STATES	OGLL	-52.70	1-16	-	-52.70	81	-52.70	81	81
15S 35E 29 432	MARY T. MCCLATCHEY	OGLL	-55.73	1-16	-0.51	-53.72	71	-56.37	61	61,66,71,76,81
15S 35E 31 222	UNKNOWN	OGLL	-54.90	1-21	-	-54.90	81	-54.90	81	81
15S 35E 31 424	CASWELL BROS.	OGLL	-58.52	1-07	-0.66	-54.14	51	-58.60	79	49-58,60-66,68-81
15S 35E 33 213	BERNICE HAMILTON	OGLL	-56.19	1-21	-	-56.19	81	-56.19	81	81
15S 35E 34 424	DAISY CLAYTON	OGLL	-54.51	1-16	-	-54.51	81	-54.51	81	81
15S 35E 35 111	ERNEST L. ANDERSON	OGLL	-54.12	1-16	+3.26	-52.83	71	-57.38	76	71,76,81
15S 35E 36 111	MRS. C. B. BARTHELEMEW	OGLL	-56.72	1-16	-0.05	-51.98	61	-56.72	81	61,66,71,76,81
15S 36E 01 111	C. F. ALEXANDER	OGLL	-76.52	1-15	+3.15	-64.89	61	-85.88	71	61,71,76,81
15S 36E 01 311	H. C. WHITMAN	OGLL	-72.66	1-07	+0.51	-43.60	49	-74.03	77	49-73,75-81
15S 36E 01 411	J. M. SCOTT	OGLL	-74.53	1-15	-3.46	-59.48	61	-74.53	81	61,71,76,81
15S 36E 02 314	HOBBY GANN	OGLL	-69.23	1-15	-2.35	-59.70	66	-69.23	81	66,71,76,81

C nearby well being pumped
D nearby well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
15S 36E 03 311	VERNON CAUDILL	OGLL	-75.10	1-15	-	-75.10	81	-75.10	81	81
15S 36E 04 322	J. P. CAUDILL	OGLL	-75.46	1-15	-0.90	-64.81	61	-75.46	81	61,66,71,76,81
15S 36E 05 211	J.P. CAUDILL	OGLL	-70.56	1-07	+2.76	-52.73	51	-74.76	75	50-81
15S 36E 05 412	J. P. CAUDILL	OGLL	-72.33	1-15	-	-72.33	81	-72.33	81	81
15S 36E 06 324	J. L. REED	OGLL	-57.70	1-14	-1.14	-49.05	61	-57.70	81	61,66,71,76,81
15S 36E 07 433	W. T. REED RANCH	OGLL	-61.58	1-14	-	-61.58	81	-61.58	81	81
15S 36E 08 111	PAUL COFFER	OGLL	-67.59	1-14	+1.77	-39.95	49	-69.36	76	49-52,54-56,69,71,76,81
15S 36E 08 321	HAROLD TOMN	OGLL	-75.08	1-14	-5.64	-67.62	71	-75.08	81	66,71,76,81
15S 36E 09 221	J. P. CAUDILL	OGLL	-76.63	1-15	-1.15	-65.90	61	-76.63	81	61,66,71,76,81
15S 36E 09 311	J.L. KIDD	OGLL	-77.52	1-15	-	-44.30	49	-77.52	81	49-62,81
15S 36E 10 311	UNKNOWN	-	-75.13	1-15	-	-75.13	81	-75.13	81	81
15S 36E 12 311	J. P. CAUDILL	OGLL	-63.18	1-15	-2.92	-50.57	61	-63.18	81	61,66,71,76,81
15S 36E 14 131	MRS. F. O. GRAHAM	OGLL	-66.34	1-07	-3.31	-42.38	45	-66.34	81	41-45,57-81
15S 36E 14 244	MRS. OHO DEAN	OGLL	-61.88	1-15	-3.20	-47.99	61	-61.88	81	61,66,71,76,81
15S 36E 15 111	HOBBY GANN	OGLL	-77.18	1-15	-	-77.18	81	-77.18	81	81
15S 36E 15 144	UNKNOWN	OGLL	-68.93	1-15	-	-68.93	81	-68.93	81	81
15S 36E 16 143	U. S. ALEXANDER	OGLL	-75.39	1-15	-6.00	-63.92	61	-75.39	81	61,66,71,76,81
15S 36E 17 111	HAWTHORN BROS.	OGLL	-77.48	1-07	-2.19	-44.47	50	-79.09	78	49-79,81
15S 36E 17 311	HAWTHORNE BROS.	OGLL	-76.45	1-14	-2.08	-69.70	66	-76.45	81	66,71,76,81
15S 36E 17 411	HAWTHORNE BROS.	OGLL	-76.00	1-14	+2.67	-61.16	61	-78.62	76	61,71,76,81
15S 36E 18 332	J. L. REED	OGLL	-60.48	1-14	-2.45	-49.64	61	-60.48	81	61,66,71,76,81
15S 36E 20 133	H. R. YOUNG	OGLL	-74.07	1-07	-	-45.25	49	-74.07	81	49-81
15S 36E 21 131	BROWN - NEELY	OGLL	-75.73	1-15	-	-75.73	81	-75.73	81	81
15S 36E 21 221	O. H. CROCKETT	OGLL	-75.85	1-15	-6.09	-63.46	61	-75.85	81	61,66,69,71,76,81
15S 36E 24 311	OTTO DEAN	OGLL	-63.71	1-13	-3.67	-48.90	61	-63.71	81	61,66,71,76,81
15S 36E 26 243	GULF OIL CO.	OGLL	-65.51	1-14	-4.07	-49.70	61	-65.51	81	61,71,76,81
15S 36E 27 111	FREMAN JONES	OGLL	-73.74	1-14	-4.33	-58.00	61	-73.74	81	61,66,71,76,81
15S 36E 28 131	J.H. MALE	OGLL	-76.43	1-07	+0.15	-44.53	47	-77.39	77	46-63,65-81
15S 36E 29 112	R. L. JACKSON	OGLL	-74.61	1-07	+0.10	-44.90	48	-74.77	80	48-77,79-81
15S 36E 29 431	C.E. ALEXANDER	OGLL	-73.20	1-14	-	-47.72	50	-73.20	81	50-58,60-61,81
15S 36E 30 111	J. L. REED	OGLL	-59.54	1-14	-1.43	-53.02	61	-59.54	81	61,66,71,76,81
15S 36E 30 411	PHYLLIS WILLIAMS	OGLL	-67.03	1-07	-0.76	-46.14	51	-67.08	80	49-81
15S 36E 31 311	JOSE ESTRADO	OGLL	-66.76	1-14	-1.95	-47.35	48	-66.76	81	49-58,60-76,81
15S 36E 32 312	HOBBY GANN	OGLL	-76.93	1-14	+0.77	-53.60	49	-77.65	76	46,49-76,81
15S 36E 33 111	HOBBY GANN	OGLL	-73.46	1-14	-	-73.46	81	-73.46	81	81
15S 36E 33 431	ZENON LEYVA	OGLL	-69.68	1-14	-	-69.68	81	-69.68	81	81
15S 36E 34 111	B.J. MARKRIDER	OGLL	-75.10	1-07	-3.45	-44.12	48	-75.74	71	48-58,60-66,68-71,73-81
15S 36E 36 133	UNKNOWN	OGLL	-68.28	1-14	-4.18	-64.10	76	-68.28	81	66,71,76,81
15S 37E 04 113	LYLE ANDERSON	OGLL	-73.00	1-07	-5.43	-37.10	50	-73.00	81	50-81
15S 37E 05 311	S. W. DUFFEY	OGLL	-73.02	1-08	-5.27	-56.69	61	-73.02	81	61,66,71,76,81
15S 37E 06 211	MILLER & MC CLISH	OGLL	-74.14	1-08	-3.79	-57.75	61	-74.14	81	61,66,71,76,81
15S 37E 07 111	DARWIN CROCKETT	OGLL	-74.28	1-07	-4.33	-46.13	50	-74.28	81	50-73,75-81
15S 37E 08 213	C. M. AND C. C. DUFFEY	OGLL	-70.52	1-08	-5.78	-52.40	61	-70.52	81	61,66,71,76,
15S 37E 09 211	KENNETH L. HUFF	OGLL	-67.51	1-08	-	-50.65	61	-74.01	71	61,66,71,81
15S 37E 09 431	K. L. HUEZ	OGLL	-64.70	1-08	+3.56	-46.02	61	-68.26	76	61,66,71,76,81
15S 37E 11 333	J. M. DENTON	OGLL	-50.95	1-08	-4.67	-46.33	76	-50.95	81	61,66,71,76,81
15S 37E 12 313	DICKINSON RANCH	OGLL	-43.20	1-08	-3.43	-39.77	76	-43.20	81	61,66,71,76,81
15S 37E 14 232	J. M. DENTON	OGLL	-45.63	1-08	-4.81	-34.12	61	-45.63	81	61,66,71,76,81
15S 37E 15 143	J. M. DENTON	OGLL	-60.00	1-13	-	-60.00	81	-60.00	81	61,66,70-76,81
15S 37E 15 244	J. S. WALKER	OGLL	-55.64	1-08	-6.48	-45.27	71	-55.64	81	61,66,71,76,81
15S 37E 17 321	MARION RENHAM	OGLL	-70.40	1-13	-	-70.40	81	-70.40	81	81
15S 37E 17 422	J. F. STEELE	OGLL	-68.03	1-13	-	-68.03	81	-68.03	81	81
15S 37E 18 214	UNKNOWN	OGLL	-69.83	1-13	-	-69.83	81	-69.83	81	81
15S 37E 18 333	OTTO DEAN	OGLL	-66.89	1-13	-	-66.89	81	-66.89	81	81
15S 37E 19 211	MARION RENHAM	OGLL	-73.74	1-13	-	-73.74	81	-73.74	81	81
15S 37E 19 311	OTTO DEAN	OGLL	-67.16	1-07	-2.99	-41.09	50	-67.16	81	49-50,52,54-64,66-81
15S 37E 20 221	J.E. STEELE	OGLL	-74.04	1-07	-4.55	-35.30	50	-75.04	78	49-81
15S 37E 21 221	BOB TAYLOR	OGLL	-69.63	1-13	-	-69.63	81	-69.63	81	81
15S 37E 23 112	NELLIE PURT	OGLL	-58.48	1-07	-5.17	-35.59	51	-59.58	80	51-81
15S 37E 23 243	FORT	OGLL	-49.80	1-09	-	-49.80	81	-49.80	81	81
15S 37E 26 122	UNKNOWN	OGLL	-56.24	1-09	-	-56.24	81	-56.24	81	81
15S 37E 27 111	C.E. RENSHAW	OGLL	-80.01B	1-07	-10.95	-29.38	43	-76.82	80	43-44,46-81
15S 37E 27 221	IRWIN HUMPHREY	OGLL	-67.43	1-09	-	-38.13	61	-67.43	81	61,66,69,71,81
15S 37E 27 423	DICKISON CATTLE CO.	OGLL	-63.37	1-09	-	-63.37	81	-63.37	81	81
15S 37E 28 411	GEORGE T. BENGE	OGLL	-82.20	1-13	-11.23	-56.78	61	-82.20	81	61,66,71,76,81
15S 37E 30 331	MABEL DEAN	OGLL	-69.68	1-13	-	-53.81	61	-69.68	81	61,66,71,76,
15S 37E 31 132	MABEL DEAN	OGLL	-67.50	1-07	-1.28	-35.04	50	-68.50	80	49-81
15S 37E 31 422	DEAN ESTATE	OGLL	-73.43	1-13	-	-	-	-	-	81
15S 37E 32 411	E. R. YARBRO	OGLL	-75.25	1-09	-	-66.98	66	-75.25	81	66,71,81
15S 37E 33 311	E. R. YARBRO	OGLL	-77.84	1-07	-5.41	-58.66	57	-77.84	61	57-44,66-81
15S 37E 34 213	C. H. CONWAY	OGLL	-66.10	1-09	-5.04	-47.74	61	-66.10	81	61,66,71,76,81
15S 37E 34 443	GLENN TAYLOR	OGLL	-56.70	1-09	-	-56.70	81	-56.70	81	81
15S 37E 35 212	DICKINSON RANCH	OGLL	-49.56	1-09	-	-41.98	71	-49.56	81	66,71,76,81
15S 38E 02 233	E. L. GLASS	OGLL	-84.08	1-06	-13.18	-51.37	61	-84.08	81	51,66,71,76,81
15S 38E 03 232	MRS. ROXIE BARTHOLOMEW	OGLL	-76.65	1-07	-9.75	-53.57	61	-76.65	81	61,66,71,73,76,81
15S 38E 05 241	DICKENSON CATTLE CO.	OGLL	-53.42	1-08	-	-53.42	81	-53.42	81	81
15S 38E 06 114	DICKINSON CATTLE CO.	OGLL	-53.28	1-07	-	-53.28	81	-53.28	81	81
15S 38E 06 331	ITTPERARY CORP.	OGLL	-49.19	1-08	-	-49.19	81	-49.19	81	81
15S 38E 07 242	DICKINSON RANCH	OGLL	-43.70	1-07	-3.10	-40.60	76	-43.70	81	61,66,71,76,81
15S 38E 09 122	SONNY SPEARS	OGLL	-51.32	1-07	-	-51.32	81	-51.32	81	81

B well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	R1 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
15S 38E 10 321	BRADY LOWE	OGLL	-55.33	1-07	-11.00	-31.84	51	-55.33	81	51-81
15S 38E 11 134	A. V. SKURLOCK	OGLL	-76.57	1-06	-11.43	-57.66	61	-76.57	81	61,66,71,76,81
15S 38E 14 144	H. L. LOWE	OGLL	-82.60	1-06	-13.66	-52.87	61	-82.60	81	61,66,71,76,81
15S 38E 15 133	H. L. LOWE	OGLL	-43.54	1-07	-7.96	-28.80	61	-43.54	81	61,66,71,76,81
15S 38E 16 321	TROY FORT	OGLL	-57.99	1-07	-13.40	-43.66	71	-57.99	81	66,71,76,81
15S 38E 18 432	DICKINSON RANCH	OGLL	-38.33	1-07	-	-38.33	81	-38.33	81	61,66,71,76,81
15S 38E 20 213	DICKINSON RANCH	OGLL	-42.23	1-07	-4.48	-37.75	76	-42.23	81	61,66,71,76,81
15S 38E 22 313	TROY FORT	OGLL	-64.00	1-07	-	-64.00	81	-64.00	81	81
15S 38E 22 432	TROY FORT	OGLL	-49.70	1-07	-5.69	-28.72	42	-49.70	81	39-53,55-81
15S 38E 23 344	JOHN W. WAITS	OGLL	-72.58	1-06	-11.88	-54.15	71	-72.58	81	66,71,76,81
15S 38E 26 311	JOHN W. WAITS	OGLL	-67.63	1-06	-9.11	-39.54	61	-67.63	81	61,66,71,76,81
15S 38E 27 132	TROY FORT	OGLL	-50.49	1-07	-5.78	-44.71	76	-50.49	81	61,66,71,76,81
15S 38E 28 311	TROY FORT	OGLL	-34.23	1-09	-2.11	-26.71	61	-34.23	81	61,66,71,76,81
15S 38E 32 111	DICKENSON RANCH	OGLL	-16.96	1-07	-2.86	-14.10	76	-16.96	81	61,66,71,76,81
15S 38E 33 141	JOHN WAITS	OGLL	-41.25	1-07	-	-41.25	81	-41.25	81	81
15S 38E 34 314	JOHN WAITS	OGLL	-48.61	1-07	-4.67	-37.65	66	-48.61	81	61,66,76,81
15S 38E 35 131	JOHN W. WAITS	OGLL	-66.42	1-07	-9.43	-37.61	50	-66.42	81	50-58,60-73,75-77,79-81
15S 38E 35 344	JOHN WAITS	OGLL	-73.82	1-07	-	-73.82	81	-73.82	81	81
16S 32E 01 141	PLYMOUTH OIL CO.	OGLL	-209.80	3-27	-	-209.80	66	-209.80	81	61,66,71,76,81
16S 32E 02 413	SUN RAY MIDCONTINENT	OGLL	-211.34	3-27	-	-206.99	61	-211.34	81	61,76,81
16S 32E 08 142	BOGLE FARMS, INC.	OGLL	-260.12	3-30	-	-259.88	71	-270.10	66	61,66,71,76,81
16S 32E 09 413	SHARP DRILLING CO.	OGLL	-238.20	3-30	-	-238.20	81	-238.20	81	81
16S 32E 11 241	FANNIE LEE MITCHELL	OGLL	-216.74	3-27	-	-216.06	71	-224.17	66	61,66,71,76,81
16S 32E 11 341	W. A. ANDERSON	OGLL	-229.43	3-27	-	-229.43	81	-244.67	66	61,66,71,76,81
16S 32E 13 133	GULF REFINING CO.	OGLL	-198.00	3-27	-	-196.58	61	-198.57	66	61,66,71,76,81
16S 32E 15 233	W. A. ANDERSON	OGLL	-226.58	3-27	-	-226.58	81	-227.18	61	61,66,71,76,81
16S 32E 20 311	TAYLOR AND HOLEMAN	OGLL	-256.46	3-13	-	-256.06	67	-257.46	60	59-76,81
16S 32E 20 333	TAYLOR AND HOLEMAN	OGLL	-237.68	3-13	-	-237.68	81	-258.83	66	61,66,71,76,81
16S 32E 21 324	TAYLOR CATTLE CO.	OGLL	-239.85	3-30	-	-239.85	61	-239.85	81	81
16S 32E 24 412	W. W. WILLIAMS	OGLL	-190.19	3-27	-	-184.15	61	-190.19	81	61,66,71,76,81
16S 32E 25 241	YUCCA WATER CO.	OGLL	-206.10	3-27	-	-206.10	81	-206.10	81	66,71,76,81
16S 32E 30 341	TAYLOR AND HOLEMAN	OGLL	-45.71	3-13	-	-45.34	61	-47.97	66	61,66,71,76,81
16S 32E 33 332	UNKNOWN	OGLL	-116.12	3-13	-	-116.12	81	-116.12	81	81
16S 32E 35 132	TAYLOR AND HOLEMAN	OGLL	-217.53	4-02	-	-211.60	61	-217.88	71	61,71,76,81
16S 32E 35 432	TAYLOR AND HOLEMAN	OGLL	-217.10	4-02	-	-210.00	61	-218.83	66	61,66,81
16S 32E 36 333	CAPROCK WATER CO.	OGLL	-213.37	3-27	-	-213.37	81	-213.37	81	76,81
16S 33E 02 112	ETDSON RANCH	OGLL	-124.88	4-07	-	-124.88	81	-136.70	71	71,76,81
16S 33E 05 232	MILLARD ETDSON	OGLL	-160.07R	4-06	-	-	-	-	-	61,66,71,76,81
16S 33E 08 311	MILLARD ETDSON	OGLL	-164.48	4-06	-	-164.48	81	-164.48	81	61,66,71,76,81
16S 33E 12 133	SHELLY OIL CO.	OGLL	-124.34	4-07	-	-121.55	68	-124.34	81	61,65-76,81
16S 33E 14 333	CHARLES R. MARTIN	OGLL	-137.25	4-06	-	-137.25	81	-137.25	81	66,71,76,81
16S 33E 17 233	SAMINE PRODUCTION CO.	OGLL	-175.41	4-07	-	-175.41	81	-175.41	81	81
16S 33E 22 314	CHARLES MARTIN INC.	OGLL	-145.57	4-07	-	-138.67	61	-145.57	81	61,71,76,81
16S 33E 25 123	TENN. GAS TRANSMISSION	OGLL	-134.03	4-07	-	-126.50	66	-134.03	81	61,66,71,76,81
16S 33E 25 232	JENNIE L. MARTIN	OGLL	-122.25	4-07	-	-116.07	61	-122.25	81	61,66,71,76,81
16S 33E 27 232	YUCCA WATER CO.	OGLL	-156.37	4-07	-	-155.43	71	-156.37	81	71,76,81
16S 33E 28 311	YUCCA WATER CO.	OGLL	-191.50	4-07	-	-181.70	61	-191.41	71	61,66,71,81
16S 33E 30 112	MOWAY AND STAFFORD CO.	OGLL	-183.21	4-07	-	-174.59	61	-183.21	81	61,66,71,76,81
16S 33E 30 344	YUCCA WATER CO.	OGLL	-212.77	4-07	-	-212.77	81	-212.77	81	66,71,76,81
16S 33E 32 144	WARREN RANCH	OGLL	-174.47	4-07	-	-174.47	81	-174.47	81	66,71,76,81
16S 33E 34 111	YUCCA WATER CO.	OGLL	-170.07	4-07	-	-164.31	66	-170.07	81	66,71,76,81
16S 33E 34 433	MARTIN DRG. CO.	OGLL	-167.83	4-07	-	-162.64	71	-167.83	81	71,76,81
16S 33E 35 123	SHELL OIL CO.	OGLL	-158.04	4-07	-	-151.78	71	-158.04	81	71,76,81
16S 33E 36 223	M.C.R.A.	OGLL	-138.81	4-07	-	-130.31	61	-138.81	81	61,81
16S 34E 01 221	HUMBLE OIL CO.	OGLL	-65.17	4-01	-	-65.17	81	-65.69	71	66,71,76,81
16S 34E 01 332	JERRY CLAYTON	OGLL	-65.83	4-01	-	-65.83	81	-66.48	66	61,66,76,81
16S 34E 02 322	J. CLAYTON	OGLL	-70.29	4-01	-	-70.29	81	-70.29	81	71,76,81
16S 34E 04 232	DAISY CHAMBERS CLAYTON	OGLL	-87.67	4-01	-	-87.67	71	-93.04	61	61,66,71,76,81
16S 34E 04 434	DAISY CHAMBERS CLAYTON	OGLL	-88.98	4-01	-	-88.27	61	-89.70	66	61,66,71,76,81
16S 34E 06 244	DAISY CHAMBERS CLAYTON	OGLL	-105.62	4-01	-	-104.88	71	-105.62	81	61,66,71,76,81
16S 34E 06 413	DAISY CHAMBERS CLAYTON	OGLL	-112.23	4-01	-	-112.23	81	-112.23	81	81
16S 34E 07 243	JENNIE L. MARTIN	OGLL	-116.18	4-01	-	-115.90	70	-116.18	81	61,66,70-76,81
16S 34E 07 422	PURE OIL CO.	OGLL	-121.90	4-01	-	-108.93	66	-126.69	71	61,66,71,76,81
16S 34E 08 433	C. W. TRAINER	OGLL	-108.07	4-01	-	-100.20	61	-108.07	81	61,66,71,76,81
16S 34E 10 214	J. R. CLAYTON	OGLL	-82.05	4-01	-	-81.72	71	-82.25	61	61,66,71,76,
16S 34E 11 312	CARL ALEXANDER	OGLL	-80.46	4-01	-	-80.46	66	-80.55	61	61,66,71,76,81
16S 34E 12 221	J. CLAYTON	OGLL	-64.68R	4-01	-	-65.65	66	-65.65	66	61,66,76,81
16S 34E 12 322	FRED J. YORK	OGLL	-67.51	4-02	-	-67.51	81	-68.01	66	66,71,76,81
16S 34E 13 222	W. T. WILLIE	OGLL	-63.45	4-02	-	-63.45	81	-63.45	81	61,66,76,81
16S 34E 14 213	CLAYTON RANCH	OGLL	-76.62	4-02	-	-76.62	81	-76.82	71	66,71,76,81
16S 34E 16 443	J. R. CLAYTON	OGLL	-89.89	4-02	-	-89.89	81	-93.79	61	61,66,71,76,81
16S 34E 18 421	CITY OF CARLSBAD	OGLL	-123.06	4-01	-7.09	-115.97	76	-123.06	81	76,81
16S 34E 20 231	MARATHON OIL CO.	OGLL	-110.19	1-07	-1.71	-104.80	68	-110.19	81	61,65-81
16S 34E 21 431	J. R. CLAYTON	OGLL	-95.36	4-02	-	-94.69	61	-95.36	81	61,66,71,76,81
16S 34E 22 133	HUMBLE OIL CO.	OGLL	-90.05	4-02	-	-89.09	71	-90.40	61	61,66,71,76,81
16S 34E 23 311	ELK OIL	OGLL	-81.21	4-02	-	-81.21	81	-81.21	81	81
16S 34E 30 233	CONOCO M.C.R.A.	OGLL	-124.00	4-02	-	-115.15	61	-126.71	71	61,71,76,81
16S 34E 34 114	MILLARD ETDSON	OGLL	-94.74	4-02	-	-94.47	61	-96.30	66	61,66,71,76,81
16S 34E 35 234	ETDSON RANCH	OGLL	-80.35	4-02	-	-80.35	81	-80.35	81	76,81
16S 35E 01 131	D. C. CLAYTON	OGLL	-53.13	3-31	-	-49.74	71	-53.13	81	66,71,76,81

R well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
16S 35E 01 411	LEA COUNTY AIRPORT	OGLL	-54.97	3-31	-	-54.97	81	-54.97	81	81
16S 35E 02 213	DAISY CRAYTON	OGLL	-54.97	3-31	-	-54.97	81	-54.97	81	81
16S 35E 03 132	H. E. HILBURN	OGLL	-56.58	3-31	-	-56.58	81	-56.58	81	66,71,76,81
16S 35E 04 144	BERNICE HAMILTON	OGLL	-55.73	3-31	+0.25	-52.14	66	-55.98	76	66,71,76,81
16S 35E 04 443	WILSHIRE OIL CO OF TEX.	OGLL	-57.85	3-31	-0.57	-55.97	61	-57.85	81	61,66,71,76,81
16S 35E 05 112	PHIL SMITH	OGLL	-55.36	3-31	+0.28	-55.36	81	-55.64	76	71,76,81
16S 35E 06 242	R.J. ANTHONY	OGLL	-58.92	3-31	+0.17	-58.92	81	-59.11	71	71,76,81
16S 35E 07 222	RED HARROD	OGLL	-59.47	3-31	0.00	-59.47	76	-60.42	71	61,66,71,76,81
16S 35E 09 411	GULF OIL CORP.	OGLL	-50.79	3-31	-0.37	-49.22	61	-50.79	81	61,66,71,76,81
16S 35E 10 333	TEX. PAC. COAL & OIL CO	OGLL	-50.60	3-31	-0.10	-50.36	71	-50.60	81	71,76,81
16S 35E 11 121	C. E. HILBURN	OGLL	-53.38	3-31	-0.96	-51.61	61	-53.38	81	61,66,69,71,76,81
16S 35E 11 221	C. E. HILBURN	OGLL	-54.77	3-31	-0.75	-52.61	61	-54.77	81	61,66,71,76,81
16S 35E 11 411	C. E. HILBURN	OGLL	-51.55	3-31	-0.22	-50.70	61	-52.34	66	61,66,69,71,76,81
16S 35E 13 112	C.E. HILBURN	OGLL	-51.97	1-07	+0.34	-43.03	49	-54.58	73	49-81
16S 35E 14 131	C. E. HILBURN	OGLL	-53.36	3-31	+0.69	-53.36	81	-55.31	66	61,66,71,76,81
16S 35E 14 313	C. E. HILBURN	OGLL	-50.62	3-31	+1.34	-50.62	81	-53.10	66	61,66,71,76,81
16S 35E 15 322	CINCO FARMS	OGLL	-49.24	3-31	-	-49.24	81	-51.38	71	66,71,81
16S 35E 17 222	GUY WARDE DRLG. CO.	OGLL	-55.34	3-31	-0.27	-53.87	61	-55.34	81	61,66,71,76,81
16S 35E 20 414	MILLARD EDSON	OGLL	-51.85	3-02	+1.67	-52.65	61	-55.52	76	61,66,71,76,81
16S 35E 22 434	MILLARD EDSON	OGLL	-46.74	4-02	-1.08	-43.35	61	-46.74	81	61,66,71,76,81
16S 35E 23 211	EARL LEAVELLE	OGLL	-49.94	4-02	+1.71	-49.94	81	-52.88	66	61,66,71,76,81
16S 35E 23 411	W. W. MAY	OGLL	-46.92	4-02	-1.20	-43.87	61	-46.94	66	61,66,71,76,81
16S 35E 24 111	CECIL MC PHERSON	OGLL	-51.47	1-07	-2.63	-44.09	51	-55.63	66	51-81
16S 35E 25 121	GEO. SUNRULD	OGLL	-44.86	4-02	-3.19	-38.60	61	-44.86	81	61,66,71,76,81
16S 35E 26 211	HOMER YOUNGBLOOD	OGLL	-47.13	1-07	-4.35	-35.17	49	-48.10	80	49-81
16S 35E 27 123	MILLARD EDSON	OGLL	-58.58	4-02	-0.67	-55.78	61	-58.58	81	61,66,71,76,81
16S 35E 31 323	EDSON RANCH	OGLL	-68.96	4-02	-	-68.96	81	-68.96	81	81
16S 35E 34 444	TEXACO	OGLL	-53.74	4-02	-	-53.74	81	-53.74	81	81
16S 35E 35 123	WESTERN NAT. GAS CO.	OGLL	-44.39	4-02	-1.32	-38.96	61	-44.39	81	61,66,71,76,81
16S 36E 01 311	BOBBY BURNETT	OGLL	-60.00	3-30	-1.33	-57.32	61	-60.00	81	61,66,71,76,81
16S 36E 01 423	J. T. EASLEY	OGLL	-59.61	3-31	+5.09	-47.64	61	-64.70	76	61,71,76,81
16S 36E 02 111	BARNEY MCMAHAN	OGLL	-73.71	3-31	+0.69	-65.89	61	-73.90	76	61,66,69,71,76,81
16S 36E 02 413	DELBERT ELFTMAN	OGLL	-72.15	3-30	+0.20	-67.41	61	-72.35	76	61,66,71,76,81
16S 36E 03 144	OTIS PRUETT	OGLL	-70.60	4-01	+1.49	-69.52	61	-73.10	71	61,66,71,76,81
16S 36E 04 322	CITY OF LOVINGTON	OGLL	-65.58	1-07	-0.28	-65.30	78	-65.89	78	71-81
16S 36E 05 111	L. L. BEARDE	OGLL	-57.34	4-01	-0.32	-53.07	61	-58.05	71	61,66,71,76,81
16S 36E 05 231	IRVIN D. PHILLIPS	OGLL	-63.69	1-07	-0.47	-50.09	48	-64.44	71	48-71,73-81
16S 36E 06 112	KAYO STRICKLAND	OGLL	-55.62	4-01	-	-55.62	81	-55.62	81	81
16S 36E 07 113	J. C. MANSKER	OGLL	-54.87	4-01	+1.61	-51.80	61	-56.48	76	61,66,71,76,81
16S 36E 08 211	BILL ZIMMERMAN	OGLL	-68.15	1-07	-	-67.03	79	-68.80	77	77-79,81
16S 36E 08 433	LAWSON MONTEITH	OGLL	-73.58	3-31	+0.99	-73.58	81	-75.26	71	71,76,81
16S 36E 11 241	LOVINGTON COUNTRY CLB	OGLL	-69.80	1-07	-	-53.97	48	-84.85	71	48-53,56,58-61,63-64,67-69, 71-73,75-81
16S 36E 13 123	NORMAN & BARRY CASWELL	OGLL	-55.84	1-07	-	-55.84	81	-56.38	80	80-81
16S 36E 13 322	WAYNE SIMPSON	OGLL	-54.74	4-01	+3.61	-46.78	61	-58.35	76	61,66,71,76,81
16S 36E 14 221	WAYNE SIMPSON	OGLL	-56.70	4-01	+2.03	-55.16	61	-61.32	66	61,66,71,76,81
16S 36E 14 311	WINFRED L. STROOPE	OGLL	-60.56	3-31	+0.56	-60.20	61	-65.79	71	61,66,71,76,81
16S 36E 15 211	JOHN BUSHING	OGLL	-62.13	4-01	-0.08	-62.05	76	-68.90	66	61,66,71,76,81
16S 36E 15 321	H. O. ROBERTS	OGLL	-62.09	3-31	+3.84	-62.09	81	-70.72	66	61,66,71,76,81
16S 36E 16 231	T. W. BLACKMON	OGLL	-65.70	3-31	+3.57	-65.70	81	-70.30	66	61,66,71,76,81
16S 36E 17 111	BERRY LEE HOBBS	OGLL	-67.75	3-31	+7.82	-64.47	61	-75.07	76	61,66,71,76,81
16S 36E 18 111	COLLIN C. CHAMBERS	OGLL	-57.43	4-01	+0.82	-55.67	61	-60.73	71	61,66,69,71,76,81
16S 36E 19 111	J.E. WITHERSPOON	OGLL	-59.25	3-31	-	-46.58	49	-59.25	81	49-62,81
16S 36E 20 111	DALE GANDY	OGLL	-73.78	3-31	-	-73.78	81	-73.78	81	81
16S 36E 20 423	DALE GANDY	OGLL	-75.34	3-31	-	-75.34	81	-75.34	81	81
16S 36E 21 232	T. W. BLACKMON	OGLL	-63.80	3-31	+0.23	-60.87	66	-64.03	76	61,66,76,81
16S 36E 22 233	LENNY SUNRULD	OGLL	-73.06	4-02	-	-73.06	81	-73.06	81	81
16S 36E 25 322	CITY OF LOVINGTON	OGLL	-65.76	4-01	-5.32	-43.78	61	-65.38	81	61,66,69,71,76,81
16S 36E 26 212	H. T. MONTEITH	OGLL	-62.15	4-01	-3.54	-55.06	71	-62.15	81	61,66,71,76,81
16S 36E 27 123	LENNY SUNRULD	OGLL	-64.32	4-02	-	-64.32	81	-64.32	81	81
16S 36E 31 131	MILLARD EDSON	OGLL	-61.49	4-01	-0.67	-60.28	66	-61.49	81	61,66,71,76,81
16S 37E 02 222	GRAHAM RANCH	OGLL	-67.89	4-02	-2.76	-63.81	61	-67.89	81	61,66,71,76,81
16S 36E 34 241	MASON GRAHAM	OGLL	-61.28	4-01	-3.47	-57.86	76	-61.28	81	61,66,71,76,81
16S 36E 35 241	JACK CAYTON	OGLL	-64.37	4-01	-5.76	-41.55	61	-64.37	81	61,66,71,76,81
16S 37E 01 111	RAYBURN HOUGHTN	OGLL	-76.70	3-13	-2.80	-59.10	61	-76.70	81	61,66,71,76,81
16S 37E 01 311	H. W. WILKS	OGLL	-81.62	1-07	-6.17	-34.93	50	-87.12	80	50-81
16S 37E 01 411	H. W. WILKS	OGLL	-73.39	3-30	-5.38	-52.77	61	-73.39	81	61,66,71,76,81
16S 37E 02 113	JOE HARADA	OGLL	-78.64	1-07	-	-38.33	50	-78.64	81	50-72,81
16S 37E 02 211	THURMAN DUNCAN	OGLL	-78.64	1-07	-4.09	-72.62	74	-78.79	80	73-81
16S 37E 03 123	EUGENE JENKINS	OGLL	-69.78	3-20	-1.97	-54.41	61	-69.78	81	61,66,71,76,81
16S 37E 03 133	MRS. J. EASLEY	OGLL	-63.71	3-30	-2.41	-60.78	76	-63.71	81	66,71,76,81
16S 37E 05 231	JOHN EASLEY	OGLL	-57.96	3-30	-	-49.81	71	-57.96	81	71,81
16S 37E 06 412	JOHN EASLEY	OGLL	-61.92	3-30	-4.27	-50.74	66	-61.92	81	66,71,76,81
16S 37E 07 114	JOHNNY RAY CARTWRIGHT	OGLL	-62.80	1-07	-4.29	-38.32	50	-63.36	79	50-81
16S 37E 07 333	J. P. CAUDILL	OGLL	-65.80	3-31	-2.60	-54.85	61	-65.80	81	61,66,71,76,81
16S 37E 07 421	J. P. CAUDILL	OGLL	-54.61	3-31	-2.96	-39.74	61	-54.61	81	61,66,71,76,81
16S 37E 08 334	J. P. CAUDILL	OGLL	-50.95C	3-31	-	-37.19	61	-37.19	61	61,66,71,76,81
16S 37E 09 434	CYNTHIA REDLIN	OGLL	-48.85	3-13	-2.42	-46.43	76	-48.85	81	61,66,71,76,81
16S 37E 10 211	LEONARD ROBINETT	OGLL	-67.75	3-12	-0.12	-59.46	61	-67.75	81	61,66,71,76,81
16S 37E 10 413	LEONARD ROBINETT	OGLL	-65.44	3-31	+0.07	-58.45	61	-72.79	71	61,66,69,71,76,81
16S 37E 11 111	HOUGHTN & CAUDLE	OGLL	-74.32	1-07	-1.86	-31.93	49	-78.64	79	49-81

C nearby well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
16S 37E 11 223	E. T. YADON	OGLL	-79.20	3-30	-	-60.93	61	-79.20	81	61,66,69,71,81
16S 37E 12 213	E. T. YADON	OGLL	-76.56	3-30	-8.69	-60.73	66	-76.56	81	66,71,76,81
16S 37E 13 412	UNKNOWN	OGLL	-67.44	3-31	-	-62.44	81	-67.44	81	81
16S 37E 14 211	ELICIO CAMACHO	OGLL	-74.78	1-07	-4.61	-39.73	50	-76.78	81	50-81
16S 37E 19 241	H. TAYLOR MONTEITH	OGLL	-46.57	3-31	-1.97	-38.57	61	-46.57	81	61,66,71,76,81
16S 37E 19 324	H. T. MONTEITH	OGLL	-48.24	3-31	-4.15	-44.09	76	-48.24	81	66,71,76,81
16S 37E 20 444	H. T. MONTEITH	OGLL	-38.84	3-31	-4.45	-29.84	66	-38.84	81	61,66,71,76,81
16S 37E 22 432	CYNTHIA MEDLIN	OGLL	-46.26	3-31	-	-46.26	81	-46.26	81	61,66,71,76,81
16S 37E 23 211	MERVYN CEARLEY	OGLL	-59.14	3-30	+2.54	-55.96	66	-64.17	71	66,69,71,76,81
16S 37E 24 233	H & K FARMS	OGLL	-77.56	3-30	-8.23	-52.72	61	-77.56	81	61,66,71,76,81
16S 37E 25 111	GERALD PISTOLE	OGLL	-67.10	1-06	-	-64.90	79	-67.10	81	79-81
16S 37E 25 331	W. T. DAVIS	OGLL	-66.30	3-13	-8.42	-46.92	61	-66.30	81	61,66,71,76,81
16S 37E 27 424	ELBERT SHIPP	OGLL	-50.77	3-13	-	-50.77	81	-50.77	81	81
16S 37E 27 442	ELBERT SHIPP	OGLL	-49.70	3-24	-	-35.86	61	-49.70	81	61,66,81
16S 37E 28 433	ELBERT SHIPP	OGLL	-42.58	3-31	-4.89	-37.69	76	-42.58	81	61,66,71,76,81
16S 37E 29 114	H. T. MONTEITH	OGLL	-43.17	3-31	-4.53	-38.64	76	-43.17	81	61,66,71,76,81
16S 37E 34 342	UNKNOWN	OGLL	-52.42	3-13	-	-52.42	81	-52.42	81	81
16S 37E 35 413	ELBERT SHIPP	OGLL	-58.32	3-13	-	-58.32	81	-58.32	81	61,66,71,81
16S 37E 36 434	LEE STILES ESTATE	OGLL	-62.42	3-13	-	-62.42	81	-62.42	81	61,66,71,76,81
16S 38E 01 131	ROBERTS AND WAITS	OGLL	-48.43	3-26	-5.34	-43.09	76	-48.43	81	61,66,71,76,81
16S 38E 03 233	J. P. CAUDILL	OGLL	-45.65	3-25	-3.67	-31.52	61	-45.65	81	61,66,69,71,76,81
16S 38E 03 333	N. MEX. STATE ENGINEER	OGLL	-44.40	1-06	-3.55	-24.60	56	-44.40	81	53-81
16S 38E 04 131	J. P. CAUDILL	OGLL	-44.32	3-28	-	-37.25	61	-44.32	81	61,66,71,76,81
16S 38E 05 111	J. P. CAUDILL	OGLL	-51.88	1-07	-	-36.53	61	-51.88	81	61,66,
16S 38E 06 414	ROY R. LEE	OGLL	-54.48C	3-27	-6.50	-37.02	61	-48.34	71	61,66,71,76,81
16S 38E 06 414	LEE	OGLL	-56.29	3-27	-	-56.29	81	-56.29	81	81
16S 38E 07 132	EMMA LAWRENCE	OGLL	-73.27	3-27	-6.90	-53.65	61	-73.27	81	61,66,71,76,81
16S 38E 07 212	W. V. LAWRENCE	OGLL	-54.50	3-27	-	-54.50	81	-54.50	81	81
16S 38E 09 321	ROY R. LEE	OGLL	-48.18	3-27	-3.48	-34.70	61	-48.18	81	61,66,71,76,81
16S 38E 10 221	J. C. HEAD	OGLL	-48.39	3-26	-4.47	-30.62	61	-48.39	81	61,71,76,81
16S 38E 10 423	J. C. HEAD	OGLL	-52.82	3-26	-	-52.82	81	-52.82	81	81
16S 38E 12 112	THOMAS WIER	OGLL	-64.83	3-27	-12.97	-39.34	61	-64.83	81	61,66,71,76,81
16S 38E 15 431	W. V. LAWRENCE	OGLL	-59.41	3-26	-3.98	-42.30	61	-59.41	81	61,66,71,76,81
16S 38E 18 112	W. V. LAWRENCE	OGLL	-56.39	1-07	-	-55.13	80	-56.39	81	80-81
16S 38E 19 111	JESS KEETH	OGLL	-71.17	3-26	-11.85	-45.93	61	-71.17	81	61,66,71,76,81
16S 38E 19 112	JESS KEETH	OGLL	-69.03	3-26	-11.50	-45.21	61	-69.03	81	61,66,69,71,76,81
16S 38E 21 221	LUTHER COOPER	OGLL	-63.02	3-26	-	-63.02	81	-63.02	81	81
16S 38E 21 313	JESS KEETH	OGLL	-73.87	3-26	-13.77	-49.10	61	-73.87	81	61,66,71,76,81
16S 38E 22 311	RAY BURNETT	OGLL	-72.43	3-26	-	-50.25	61	-72.43	81	61,66,71,81
16S 38E 24 433	EUGENE L. PARKER	OGLL	-67.16	3-24	-6.19	-51.65	61	-67.16	81	61,66,71,76,81
16S 38E 25 233	W. V. LAWRENCE	OGLL	-62.22	3-24	-	-31.90	42	-62.22	81	41-43,81
16S 38E 26 131	WOODY'S ACRES	OGLL	-72.96	3-24	-	-51.77	54	-72.96	81	54-64,66-71,81
16S 38E 26 211	EMMA LAWRENCE	OGLL	-62.57	3-25	-4.37	-48.20	61	-62.57	81	61,66,71,76,81
16S 38E 27 111	WOODY'S ACRES	OGLL	-88.49	1-06	-8.45	-32.99	50	-88.49	81	50-81
16S 38E 27 313	WOODY'S ACRES	OGLL	-103.26C	3-26	-6.25	-73.30	61	-97.01	76	61,66,70-76,81
16S 38E 28 331	SNYDER RANCH	OGLL	-90.92	3-26	-	-63.96	61	-90.92	81	61,66,71,78,81
16S 38E 28 331	CHARLES NOLAN	OGLL	-69.90	3-26	-	-69.90	81	-69.90	81	81
16S 38E 29 111	E. T. YADON	OGLL	-74.06	3-26	-14.86	-49.21	61	-74.06	81	61,66,71,76,81
16S 38E 30 211	EDWARD K. MITCHELL	OGLL	-70.16	1-06	-13.31	-36.92	51	-70.16	81	51-64,66-81
16S 38E 30 311	ELMER AND W. MANNEY	OGLL	-76.73	3-26	-16.29	-53.23	61	-76.73	81	61,66,71,76,81
16S 38E 30 413	ELMER & W. MANNEY	OGLL	-69.84	3-26	-5.93	-52.78	61	-69.84	81	61,66,71,76,81
16S 38E 31 244	LEE STILES	OGLL	-76.70A	3-26	-6.52	-70.18	76	-70.18	76	61,66,71,76,81
16S 38E 32 421	LAWRENCE GREGORY	OGLL	-94.02	3-26	-	-94.02	81	-94.02	81	81
16S 38E 34 131	HARRIS & PRITCHETT	OGLL	-104.09B	1-06	-5.32	-62.39	50	-104.42	80	52,58-81
16S 38E 35 124	WOODY'S ACRES	OGLL	-78.37	3-24	-9.89	-50.35	61	-78.37	81	61,66,70-76,81
16S 38E 35 331	ANA K. HAMILTON	OGLL	-88.60	3-24	-10.76	-53.14	61	-88.60	81	61,66,71,76,81
16S 39E 05 311	LARRY PARKER	OGLL	-76.60	3-25	-8.63	-55.65	61	-76.60	81	61,66,71,76,81
16S 39E 07 331	W. V. LAWRENCE	OGLL	-66.89	1-06	-8.13	-51.76	66	-66.89	81	66,71,76,
16S 39E 08 323	EMMA LAWRENCE	OGLL	-84.59	3-25	-	-84.59	81	-84.59	81	81
16S 39E 17 311	W. P. COOKE	OGLL	-82.60	3-25	-9.67	-63.37	61	-82.60	81	61,71,76,81
16S 39E 17 344	W. P. COOKE	OGLL	-89.50	1-06	-7.95	-67.90	61	-90.29	80	51,66,71,76,
16S 39E 19 131	J. W. AND C. W. HILLARD	OGLL	-68.60	3-25	-	-49.17	61	-68.60	81	61,66,71,81
16S 39E 20 113	GEORGE BRADFORD	OGLL	-76.22	3-25	-7.99	-37.47	48	-76.22	81	48,66-76,81
16S 39E 29 113	L. F. SIMS	OGLL	-82.86	3-25	-	-82.86	81	-82.86	81	81
16S 39E 29 233	T. P. HOLDER	OGLL	-97.69	1-06	-12.83	-54.85	50	-97.69	81	50-56,60-81
16S 39E 29 334	L. F. SIMS	OGLL	-96.30	3-25	-	-69.90	61	-96.30	81	61,70,81
16S 39E 30 113	RHODES & APEX	OGLL	-70.94	3-24	-	-57.44	66	-70.94	81	66,71,81
17S 32E 01 323	ETTA PASCHALL	OGLL	-172.17	1-28	-5.43	-151.76	61	-177.89	66	61,66,76,81
17S 32E 01 422	WATER FLOOD ASSOC.	OGLL	-199.03	1-23	-	-199.03	81	-199.03	81	81
17S 32E 03 321	BUFFALO OIL CO.	OGLL	-164.00	1-28	-1.40	-162.21	71	-164.00	81	61,71,76,81
17S 32E 03 433	CONOCO	OGLL	-138.62	1-28	-1.27	-136.86	66	-138.62	81	61,66,71,76,81
17S 32E 11 213	CASWELL	OGLL	-105.86	1-28	-	-105.86	81	-105.86	81	81
17S 32E 11 231	CONOCO	OGLL	-87.90	1-28	-	-87.90	81	-87.90	81	81
17S 32E 11 343	CASWELL	OGLL	-49.33	1-28	-0.55	-47.11	71	-49.33	61	61,68,71,76,81
17S 33E 05 222	YUCCA WATER CO.	OGLL	-165.40	1-27	-	-162.20	71	-166.50	61	61,66,71,76,81
17S 33E 06 420	SANTIAGO OIL CO.	OGLL	-181.78	1-23	+1.75	-161.78	81	-181.94	71	61,66,68,71,76,81
17S 33E 07 141	ETTA PASCHALL	OGLL	-191.96	1-23	-4.01	-187.95	76	-197.54	71	61,66,71,76,81
17S 33E 07 323	PHILLIPS PET. CO.	OGLL	-190.28	1-23	-0.68	-188.50	61	-190.28	81	61,66,71,76,81
17S 33E 08 132	S. H. WILLIAMS	OGLL	-177.13	1-27	-1.63	-175.50	76	-177.13	81	76,81
17S 33E 09 342	THUNDERBIRD DRG. CO.	OGLL	-176.23	1-27	-2.68	-168.96	61	-176.23	81	61,66,71,76,81

A well being pumped
B well pumped recently
C nearby well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
17S 33E 10 434	WILLIAMS	OGLL	-149.58	1-27	-	-149.58	81	-149.58	81	81
17S 33E 12 243	JOHN WILLIAMS RANCH	OGLL	-130.34	1-27	-3.81	-120.61	66	-130.34	81	61,66,71,76,81
17S 33E 13 341	POTASH CO. OF AMERICA	OGLL	-174.33	1-06	-7.15	-146.05	53	-174.33	81	52-81
17S 33E 13 434	POTASH CO. OF AMERICA	OGLL	-174.95	1-27	-	-145.02	49	-175.54	61	48-61,81
17S 33E 18 221	ALVIN WOODS	OGLL	-182.40	1-23	-	-182.21	66	-182.83	71	61,66,71,81
17S 33E 18 322	CONOCO	OGLL	-194.64	1-27	+0.13	-194.64	81	-196.58	61	61,76,81
17S 33E 20 241	G. M. WILLIAMS	OGLL	-165.10	1-27	-1.57	-163.45	71	-165.34	66	66,71,76,81
17S 33E 22 432	G. M. WILLIAMS	OGLL	-153.23	1-27	-2.88	-150.35	76	-159.02	66	61,66,71,76,81
17S 33E 25 244	AMAX CHEMICAL CORP.	OGLL	-157.17	2-03	-	-143.81	66	-180.00	61	52-66,81
17S 33E 29 222	EL PASO NAT. GAS	OGLL	-201.11	1-28	-0.61	-200.50	76	-201.34	61	61,76,81
17S 33E 29 344	UNKNOWN	OGLL	-61.02	1-28	+0.08	-61.02	81	-62.04	61	61,66,71,76,81
17S 33E 33 234	GEORGE WILLIAMS	ALVM	-120.62	1-28	-0.17	-120.45	76	-120.62	81	76,81
17S 33E 33 422	H. R. DENNIS OIL CO.	ALVM	-121.54	1-29	-0.24	-70.40	61	-125.00	66	61,66,71,76,81
17S 34E 02 131	WILLARD ETDSON	OGLL	-87.10	1-21	-1.75	-85.35	76	-87.10	81	61,66,71,76,81
17S 34E 02 343	S. P. YATES	OGLL	-88.76	1-21	-1.53	-84.52	61	-88.78	81	61,66,71,76,81
17S 34E 04 432	HOD RIVER OIL & REF CO	OGLL	-102.11	1-21	-1.16	-98.46	61	-102.11	81	61,66,71,76,81
17S 34E 07 422	MARCUM DRG. CO.	OGLL	-129.04	1-22	-	-129.04	81	-129.04	81	81
17S 34E 08 141	DELFERN OIL CO.	OGLL	-123.11	1-21	-2.71	-116.52	61	-123.11	81	61,66,71,76,81
17S 34E 10 223	MAGNOLIA PET. CO.	OGLL	-95.29	1-21	-1.93	-90.90	61	-95.29	81	61,66,71,76,81
17S 34E 14 111	MAGNOLIA PET. CO.	OGLL	-94.75	1-22	-	-79.11	61	-94.75	81	61,66,71,76,81
17S 34E 14 144	MAGNOLIA PET. CO	OGLL	-111.18	1-23	-4.45	-93.16	61	-111.18	81	58,61,76,81
17S 34E 15 421	UNKNOWN	OGLL	-106.05	1-22	-	-106.05	81	-106.05	81	81
17S 34E 17 213	MARCUM DRG. CO.	OGLL	-126.29	1-28	-	-126.29	81	-126.29	81	81
17S 34E 18 443	POTASH CO. OF AMERICA	OGLL	-143.72	1-27	-3.20	-131.35	61	-143.72	81	61,66,71,76,81
17S 34E 20 443	DUVAL CORP.	OGLL	-162.90	1-27	-	-162.90	81	-162.90	81	81
17S 34E 22 434	SCHARBAUER CATTLE CO.	OGLL	-148.62	1-27	-	-148.62	81	-148.62	81	81
17S 34E 23 433	MAGNOLIA OIL CO.	OGLL	-127.36	1-22	-7.24	-115.12	76	-127.36	81	76,81
17S 34E 24 211	MAG. PET. CO.	OGLL	-92.14	1-22	-3.62	-83.05	61	-92.14	81	61,66,71,76,81
17S 34E 25 213	MAG. PET. CO.	OGLL	-88.92	1-22	-5.82	-74.06	61	-88.92	81	61,71,76,81
17S 34E 30 144	AMAX CHEMICAL CORP.	OGLL	-156.26	1-28	-	-140.01	67	-156.26	81	61,66-71,81
17S 34E 30 344	AMAX CHEMICAL CORP.	OGLL	-168.88	2-05	-	-143.33	66	-168.88	81	61,66,81
17S 34E 32 141	UNKNOWN	OGLL	-144.58	1-22	-6.09	-132.45	66	-144.58	81	66,71,76,81
17S 34E 32 413	SCHARBAUER CATTLE CO.	OGLL	-143.52	2-03	-5.52	-127.90	61	-143.52	81	61,66,71,76,81
17S 34E 36 224	GETTY OIL CO.	OGLL	-99.55	1-23	-13.07	-77.79	61	-99.55	81	61,66,71,76,81
17S 34E 36 312	MOBIL OIL CO.	OGLL	-103.43	1-23	-10.25	-78.64	61	-103.43	81	61,66,71,76,81
17S 34E 36 333	TEXACO	OGLL	-116.67	1-23	-	-116.67	81	-116.67	81	77,81
17S 35E 01 444	DOROTHY SCHARBAUER	OGLL	-50.98	1-14	-0.86	-43.86	61	-50.98	81	61,66,71,76,81
17S 35E 04 312	WILLARD ETDSON	OGLL	-57.58	1-16	-	-55.60	61	-57.58	81	61,66,71,81
17S 35E 07 342	WILLARD ETDSON	OGLL	-72.97	1-15	-0.99	-71.34	71	-72.97	81	61,66,71,76,81
17S 35E 11 111	WILLARD ETDSON	OGLL	-40.60	1-16	-1.08	-38.52	61	-40.60	81	61,66,71,76,81
17S 35E 13 322	DOROTHY SCHARBAUER	OGLL	-42.27	1-16	-1.41	-40.86	76	-42.27	81	61,66,71,76,81
17S 35E 14 132	VIOLA LEE	OGLL	-42.69	1-20	-1.76	-40.93	76	-42.69	81	61,66,71,76,81
17S 35E 19 142	OHIO OIL CO.	OGLL	-68.07	1-20	-2.07	-62.60	61	-68.07	81	61,66,71,76,81
17S 35E 20 133	L. M. HARPER	OGLL	-65.45	1-20	-2.10	-61.06	61	-65.45	81	61,66,76,81
17S 35E 21 231	GILES LEE	OGLL	-47.23	1-20	-0.81	-46.40	76	-47.23	81	76,81
17S 35E 23 334	NEVILLE G. PENROSE INC.	OGLL	-40.06	1-16	-2.25	-37.08	61	-40.06	81	61,66,71,76,81
17S 35E 24 113	GILES LEE RANCH	OGLL	-35.88	1-16	-	-35.88	81	-35.88	81	81
17S 35E 24 233	ROSS BENNETT	OGLL	-40.87	1-16	-2.11	-38.76	76	-40.87	81	61,66,71,76,81
17S 35E 24 312	GILES LEE RANCH	OGLL	-34.29	1-16	-	-34.29	81	-34.29	81	81
17S 35E 28 131	PHILLIPS PET. CO.	OGLL	-69.80	1-21	-	-69.80	81	-69.80	81	81
17S 35E 28 223	ZAPATA PET. CO.	OGLL	-49.51	1-21	-1.91	-46.21	61	-49.51	81	61,66,71,76,81
17S 35E 29 323	PHILLIPS PET. CO.	OGLL	-63.64	1-20	-	-63.64	81	-63.64	81	81
17S 35E 31 434	PHILLIPS PET. CO.	OGLL	-87.27	1-20	-11.15	-63.92	61	-87.27	81	61,66,71,76,81
17S 35E 32 211	EXXON OIL CO.	OGLL	-72.31	1-20	-2.75	-69.56	76	-72.31	81	76,81
17S 35E 33 133	PHILLIPS PET. CO.	OGLL	-61.18	1-21	-	-61.18	81	-61.18	81	81
17S 35E 33 343	PHILLIPS PET. CO.	OGLL	-63.64	1-21	-2.38	-58.97	66	-63.64	81	61,66,71,76,81
17S 35E 34 114	MAGNOLIA PET. CO.	OGLL	-55.19	1-21	-3.09	-48.46	61	-55.19	81	61,66,71,76,81
17S 35E 35 213	PHILLIPS PET. CO.	OGLL	-45.18	1-21	-2.63	-37.94	59	-45.18	81	40-76,81
17S 35E 36 311	AMERADA PET. CO.	OGLL	-47.91C	1-21	-5.57	-37.82	61	-47.93	71	61,66,71,76,81
17S 36E 02 244	JACK CAYTON	OGLL	-58.13	1-13	-6.03	-43.75	61	-58.13	81	61,66,71,76,81
17S 36E 02 312	CAREY MASON GRAHAM	OGLL	-53.19	1-13	-2.69	-47.69	61	-53.19	81	61,66,71,76,81
17S 36E 02 411	JACK CAYTON	OGLL	-49.78	1-13	-4.99	-43.21	61	-49.78	81	61,66,71,76,81
17S 36E 03 132	MASON GRAHAM	OGLL	-52.28	1-13	-	-52.28	81	-52.28	81	81
17S 36E 03 243	CAREY MASON GRAHAM	OGLL	-58.87	1-13	-1.07	-53.69	61	-58.87	81	61,66,71,76,81
17S 36E 04 133	FRED TURNER, JR.	OGLL	-59.15	1-14	-	-59.15	81	-59.15	81	81
17S 36E 05 311	C. M. GRAHAM	OGLL	-57.16	1-13	+0.21	-57.16	81	-60.70	71	61,66,71,76,81
17S 36E 05 324	TRIDAN OIL CO.	OGLL	-58.43	1-13	-1.19	-56.57	61	-59.12	71	61,66,71,76,81
17S 36E 07 121	PAN AMERICAN	OGLL	-49.08	1-14	-1.35	-47.44	61	-49.08	81	61,66,71,76,81
17S 36E 07 414	HUMBLE OIL CO.	OGLL	-41.78	1-14	-1.80	-39.98	76	-41.93	71	61,66,71,76,81
17S 36E 08 411	TEXACO	OGLL	-50.37	1-14	-1.73	-48.64	61	-50.37	81	61,66,71,76,81
17S 36E 10 111	D.F. SCHARBAUER	OGLL	-44.23	1-14	-2.57	-41.66	76	-44.23	81	71,76,81
17S 36E 10 141	D. TURNER SCHARBAUER	OGLL	-42.47	1-14	-	-42.47	81	-42.47	81	81
17S 36E 12 123	FRED TURNER JR.	OGLL	-47.56	1-14	-3.46	-34.84	61	-47.56	81	61,66,71,76,81
17S 36E 12 223	MRS. D. MCREE	OGLL	-49.42	1-14	-2.51	-34.63	61	-49.42	81	61,66,71,76,81
17S 36E 12 323	D. T. SCHARBAUER	OGLL	-43.41B	1-14	-3.00	-34.57	61	-40.41	76	61,66,71,76,81
17S 36E 14 411	D. T. SCHARBAUER	OGLL	-34.37	1-14	-1.41	-32.96	76	-34.86	61	61,66,71,76,81
17S 36E 15 142	D. T. SCARBAUER	OGLL	-35.50	1-14	-2.19	-33.31	76	-35.50	81	61,66,71,76,81
17S 36E 17 441	FRED TURNER	OGLL	-42.70	1-14	-1.42	-40.67	61	-42.70	81	61,66,71,76,81
17S 36E 18 444	FRED TURNER	OGLL	-36.73	1-14	-1.54	-34.69	61	-36.73	81	61,66,71,76,81
17S 36E 19 211	FRED TURNER	OGLL	-34.12	1-14	-1.21	-34.91	76	-40.45	61	61,66,71,76,81

B well pumped recently
C nearby well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
17S 36E 21 411	FRED TURNER	OGLL	-45.32	1-14	-	-44.14	61	-45.32	81	61,66,71,81
17S 36E 23 141	FRED TURNER	OGLL	-32.75	1-15	-1.94	-30.31	76	-32.75	81	61,66,71,76,81
17S 36E 25 123	FRED TURNER	OGLL	-32.80	1-15	-2.44	-29.63	61	-32.80	81	61,66,71,76,81
17S 36E 27 412	U-BAR RANCH	OGLL	-42.49	1-15	-	-42.49	81	-42.49	81	81
17S 36E 29 211	VIOLA AND GYLES M. LEE	OGLL	-44.44	1-15	+11.98	-38.92	61	-56.42	76	61,66,71,76,81
17S 36E 29 424	UNKNOWN	OGLL	-45.54	1-15	-	-45.54	81	-45.54	81	81
17S 36E 32 314	BILL LEE	OGLL	-58.10	1-16	-	-58.10	81	-58.10	81	81
17S 36E 33 331	LARRY SOUTHES	OGLL	-63.51	1-20	-	-48.04	61	-63.51	81	61,66,71,76,81
17S 36E 34 331	FRED TURNER JR.	OGLL	-48.74	1-15	-3.35	-37.71	61	-48.74	81	61,66,71,76,81
17S 36E 35 131	D. T. SCHARBAUER	OGLL	-44.34	1-15	-1.89	-39.27	61	-44.34	81	61,66,69,71,76,81
17S 37E 01 411	TOMMY PRICE	OGLL	-71.27	1-07	-2.28	-49.94	61	-71.27	81	61,66,76,81
17S 37E 03 313	DOYCE E. COOK	OGLL	-60.10	1-06	-8.26	-43.84	61	-60.10	81	61,66,71,76,81
17S 37E 04 411	E. R. SHIPP	OGLL	-55.36	1-07	-	-55.36	81	-55.36	81	81
17S 37E 05 133	CARL ALEXANDER	OGLL	-52.16	1-07	-	-51.77	80	-52.16	81	80-81
17S 37E 05 412	FRANK AND HENRY COVERT	OGLL	-52.29	1-07	-4.26	-36.54	61	-52.29	81	61,66,71,76,81
17S 37E 06 411	J. LYNN WALKER	OGLL	-57.89	1-07	-3.72	-38.46	61	-57.89	81	61,66,71,76,81
17S 37E 07 211	E. R. SHIPP	OGLL	-51.09	1-07	-3.50	-35.78	61	-51.09	81	61,66,71,76,81
17S 37E 07 243	E. R. SHIPP	OGLL	-48.45	1-07	-	-48.45	81	-48.45	81	81
17S 37E 10 211	S.M. RETLAND	OGLL	-63.77	1-06	-11.50	-32.87	49	-63.77	81	49-81
17S 37E 10 411	JIMMY EVANS	OGLL	-65.41	1-07	-	-65.41	81	-65.41	81	81
17S 37E 12 113	TOMMY PRICE	OGLL	-75.47	1-06	-2.95	-40.69	50	-76.78	80	50-81
17S 37E 13 224	MARY LEE MORRIS	OGLL	-58.93	1-07	-	-58.93	81	-58.93	81	81
17S 37E 18 414	E. R. SHIPP	OGLL	-45.09	1-07	-2.38	-36.09	61	-45.09	81	61,66,71,76,81
17S 37E 21 223	E. R. SHIPP	OGLL	-49.65	1-07	-2.65	-46.38	66	-49.65	81	61,66,71,76,81
17S 37E 21 334	E. R. SHIPP	OGLL	-45.94	1-07	-2.58	-38.75	66	-45.94	81	61,66,71,76,81
17S 37E 23 112	JIM CROW	OGLL	-59.77	1-08	-	-59.77	81	-59.77	81	81
17S 37E 23 213	BRUCE PRITCHETT	OGLL	-64.98	1-08	-1.91	-59.51	66	-64.98	81	66,69,76,81
17S 37E 24 222	MARY LEE MORRIS	OGLL	-60.11	1-06	-	-57.60	80	-60.11	81	80-81
17S 37E 24 411	L. L. LOHANG	OGLL	-65.23	1-08	+0.37	-65.23	81	-65.60	76	76,81
17S 37E 25 411	CARL ALEXANDER	OGLL	-59.30	1-08	-5.87	-41.80	61	-62.07	71	61,66,71,76,81
17S 37E 26 411	H. RUNNELS	OGLL	-59.31	1-08	-5.61	-53.70	76	-59.31	81	76,81
17S 37E 27 412	D. W. EUBANK	OGLL	-58.45	1-08	-4.16	-47.56	61	-58.45	81	61,76,81
17S 37E 30 422	CHARLES BALKEY	OGLL	-38.47	1-08	-	-33.71	66	-38.47	81	61,66,71,81
17S 37E 32 331	CHARLES BLAKEY	OGLL	-40.91	1-08	-2.57	-34.18	61	-40.91	81	61,66,71,76,81
17S 37E 32 424	CHARLES BLAKEY	OGLL	-44.12	1-08	+0.46	-37.00	61	-44.58	76	61,66,71,76,81
17S 37E 33 432	CHARLES BLAKEY	OGLL	-49.10	1-09	-	-49.10	81	-49.10	81	81
17S 37E 34 111	C.G. GOODWIN	OGLL	-60.23	1-06	+0.48	-47.13	57	-69.74	73	57-81
17S 37E 34 411	PITCHFORK CATTLE CO.	OGLL	-59.80	1-09	-6.58	-37.77	54	-59.80	81	54-55,61,66,69,71,76,81
17S 37E 35 114	CLARENCE MARSHEARS	OGLL	-65.40	1-09	-	-65.40	81	-65.40	81	81
17S 37E 35 433	LOYD M. TRAYLOR	OGLL	-48.95	1-09	-2.99	-35.54	61	-48.95	81	61,66,71,76,81
17S 37E 36 113	HAROLD RUNNELS ESTATE	OGLL	-57.04	1-20	-5.59	-23.78	42	-57.04	81	39-40,42-46,61,66,71,76,81
17S 37E 36 443	LEA COUNTY SPEEDBOWL	OGLL	-50.47	1-09	-	-50.47	81	-50.47	81	81
17S 38E 01 232	UNKNOWN	OGLL	-110.03	1-06	-	-108.65	80	-110.03	81	80-81
17S 38E 02 311	W.V. LAWRENCE	OGLL	-81.96	1-06	-8.61	-43.65	51	-87.62	80	49-81
17S 38E 03 111	I. D. GREGORY	OGLL	-100.99	2-17	-10.54	-58.64	61	-100.99	81	61,66,71,76,81
17S 38E 04 111	JAMES R. MORRIS	OGLL	-93.71	2-17	+0.33	-70.58	61	-94.04	76	61,66,76,81
17S 38E 04 442	JAMES R. TEAGUE	OGLL	-86.55	2-17	-9.10	-61.93	66	-86.55	81	66,71,76,81
17S 38E 05 133	E. F. AND LULA V. OLDS	OGLL	-79.21	2-17	-6.86	-57.88	61	-79.21	81	61,66,71,76,81
17S 38E 07 111	L.R. SEARINGS	OGLL	-70.44	1-06	-6.95	-35.59	52	-70.44	81	51-81
17S 38E 07 311	RAY BURNETT	OGLL	-68.23	2-18	-7.94	-46.92	61	-68.23	81	61,66,71,76,81
17S 38E 08 211	GRETF & HOOD, INC.	OGLL	-74.66	1-06	-7.48	-36.46	50	-74.66	81	50-57,59-81
17S 38E 08 331	BROWN AND WALKER	OGLL	-65.87	2-18	-	-37.88	51	-65.87	81	51-62,81
17S 38E 09 331	CLAY BARGER	OGLL	-66.42	2-18	-9.25	-42.72	61	-66.42	81	61,66,71,76,81
17S 38E 10 331	MARY LEE MORRIS	OGLL	-72.68	2-18	-	-72.68	81	-72.68	81	81
17S 38E 11 113	EMMA LAWRENCE	OGLL	-80.38	2-17	-5.75	-60.22	61	-80.38	81	61,66,71,76,81
17S 38E 11 214	ALAN RALSTON	OGLL	-93.14	2-17	-	-93.14	81	-93.14	81	81
17S 38E 11 344	A. N. NORMAN, JR.	OGLL	-86.78	2-17	-	-86.78	81	-86.78	81	81
17S 38E 14 414	J. W. GARDNER	OGLL	-67.64	2-17	-3.74	-57.74	61	-67.64	81	61,66,71,76,81
17S 38E 15 224	W. V. LAWRENCE	OGLL	-70.13	2-17	-2.98	-61.13	61	-70.13	81	61,66,69,71,76,81
17S 38E 15 313	W. V. LAWRENCE	OGLL	-56.35	1-06	-4.10	-44.14	61	-56.35	81	61,66,71,76,
17S 38E 18 342	MARY LEE MORRIS	OGLL	-57.77	2-18	-	-57.77	81	-57.77	81	81
17S 38E 21 412	HUDDLESTON AND GREGORY	OGLL	-55.26	2-18	-	-38.76	61	-55.26	81	61,66,71,81
17S 38E 22 414	MARY LEE MORRIS	OGLL	-49.35	2-18	-	-49.35	81	-49.35	81	81
17S 38E 23 111	W.V. LAWRENCE	OGLL	-57.72	2-17	-3.20	-36.01	49	-57.72	81	49-62,71,76,81
17S 38E 24 314	MARY LEE MORRIS	OGLL	-65.68	1-06	-	-58.40	80	-65.68	81	80-81
17S 38E 25 131	W. V. LAWRENCE	OGLL	-54.71	2-18	-4.91	-42.55	61	-54.71	81	61,66,71,76,81
17S 38E 25 244	W. V. LAWRENCE	OGLL	-69.39	2-18	-7.87	-61.28	71	-69.39	81	61,66,71,76,81
17S 38E 26 311	W. V. LAWRENCE	OGLL	-51.08	2-18	-5.24	-38.11	66	-51.08	81	66,71,73,76,81
17S 38E 27 132	W.E. MANNING	OGLL	-56.98	2-19	-	-25.55	47	-56.98	81	44,46-62,81
17S 38E 28 121	W. R. TOMLINSON	OGLL	-53.57	2-19	-	-53.57	81	-53.57	81	81
17S 38E 29 131	MARY LEE MORRIS	OGLL	-58.50	2-19	-	-58.50	81	-58.50	81	81
17S 38E 30 112	B.V. PRITCHETT	OGLL	-65.00	2-19	-5.91	-44.80	61	-65.00	81	61,66,71,76,81
17S 38E 31 211	STANFORD CARLILE	OGLL	-59.71	2-19	+2.87	-44.27	61	-61.08	76	61,66,71,76,81
17S 38E 31 311	G.L. REENE	OGLL	-53.43	1-06	-2.10	-26.71	49	-54.70	78	48-71,74-81
17S 38E 31 414	ALEXANDER BROS.	OGLL	-53.69	2-19	-5.54	-38.94	61	-53.69	81	61,66,71,76,81
17S 38E 32 232	CURTIS JONES	OGLL	-66.63	2-19	-2.87	-55.77	61	-66.90	71	61,66,71,76,81
17S 38E 33 122	J. B. CALLAWAY	OGLL	-61.75	2-19	-	-61.75	81	-61.75	81	81
17S 38E 33 444	LEO GREENWOOD	OGLL	-64.73	2-19	-	-64.73	81	-64.73	81	81
17S 38E 34 113	W.E. BUSBY	OGLL	-57.43	1-06	-8.04	-24.78	44	-57.43	81	43-81
17S 38E 34 431	CHARLES P. MILLER	OGLL	-67.03	2-19	-	-67.03	81	-67.03	81	81

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
17S 38E 35 143	EMMA C. LAWRENCE	OGLL	-68.34	2-19	-7.91	-42.19	61	-68.34	81	61,66,71,76,81
17S 38E 35 222	TOM MILLER	OGLL	-52.37	2-19	-	-52.37	81	-52.37	81	81
17S 38E 35 423	W.K. CHAMBLESS	OGLL	-79.44	2-19	-9.07	-70.37	76	-79.44	81	76,81
17S 38E 36 212	EMMA LAWRENCE	OGLL	-73.39	1-06	-	-59.60	50	-73.39	81	50-81
17S 39E 17 111	WAYNE WAGNON	OGLL	-87.85	2-17	-	-87.85	81	-87.85	81	81
17S 39E 17 443	WAYNE WAGNON	OGLL	-107.62	2-17	-	-107.62	81	-107.62	81	81
17S 39E 18 133	C. F. BROOKS	OGLL	-89.08	2-17	-6.87	-71.25	61	-89.08	81	61,71,76,81
17S 39E 18 321	C. F. BROOKS	OGLL	-86.44	2-17	-	-86.44	81	-86.44	81	81
17S 39E 20 432	UNKNOWN	OGLL	-104.05	2-18	-	-104.05	81	-104.05	81	81
17S 39E 29 414	UNKNOWN	OGLL	-105.91	2-18	-	-105.91	81	-105.91	81	81
17S 39E 30 232	EMMA LAWRENCE	OGLL	-86.98	1-06	-	-80.79	80	-86.98	81	80-81
17S 39E 30 414	EMMA LAWRENCE	OGLL	-79.74	2-18	-	-79.74	81	-79.74	81	81
17S 39E 31 243	RONALD PARKER	OGLL	-70.45	2-18	-7.08	-58.10	61	-70.45	81	61,66,71,76,81
17S 39E 32 413	W. V. LAWRENCE	OGLL	-91.23	2-18	-6.80	-76.76	61	-91.23	81	61,66,71,76,81
18S 32E 07 442	LINAM RANCH	ALVM	-82.19	3-17	-	-82.19	81	-82.19	81	76,81
18S 32E 20 144	NEWMONT OIL CO.	CHNL	-168.27	3-17	-	-168.27	81	-179.35	71	68,71,76,81
18S 32E 22 323	PET. CORP. OF TEXAS	SNRS	-428.24	3-17	-	-428.24	81	-434.41	71	68,71,76,81
18S 32E 34 222	UNKNOWN	CHNL	-117.28	3-17	-	-117.28	81	-117.46	68	65,68,71,76,81
18S 33E 10 232	GEORGE WILLIAMS	ALVM	-37.04	2-20	+0.82	-37.04	81	-37.86	76	65,68,76,81
18S 33E 11 443	GEORGE WILLIAMS	ALVM	-43.57	2-20	-0.58	-42.40	71	-43.57	81	66,71,76,81
18S 33E 12 442	SCHARBAUER CATTLE CO.	OGLL	-138.91	2-20	-1.25	-137.22	61	-138.91	81	61,66,71,76,81
18S 33E 13 442	CARPER DRG. CO.	ALVM	-46.88	2-20	-0.33	-46.55	76	-47.22	66	61,66,71,76,81
18S 33E 14 111	GEORGE WILLIAMS	ALVM	-37.98	2-20	-1.57	-35.20	71	-37.98	81	54,61,65-66,68,71,76,81
18S 33E 23 231	MARGIE T. KEOHANE	ALVM	-47.63	2-20	-1.37	-45.65	71	-47.63	81	65,68,71,76,81
18S 34E 01 122	TEXACO	OGLL	-105.86	3-11	-11.94	-79.69	61	-105.86	81	61,76,81
18S 34E 02 213	KERMAC POTASH	OGLL	-130.37	3-11	-	-130.37	81	-130.37	81	77,81
18S 34E 04 111	MESA RETAILERS INC.	OGLL	-137.31	3-17	-5.58	-121.42	61	-137.31	81	61,66,71,76,81
18S 34E 08 231	SCHARBAUER CATTLE CO.	OGLL	-111.29	3-17	-2.37	-107.53	71	-111.29	81	71,76,81
18S 34E 11 344	NATIONAL POTASH CO.	OGLL	-115.93C	3-17	-	-	-	-	-	81
18S 34E 12 122	SCHARBAUER CATTLE CO.	OGLL	-99.78	3-11	-4.74	-95.04	76	-99.78	81	76,81
18S 34E 15 241	SCHARBAUER CATTLE CO.	OGLL	-108.75	3-17	+0.42	-108.75	81	-109.17	76	61,71,76,81
18S 34E 18 411	OHIO OIL CO.	OGLL	-146.16	2-20	+0.01	-141.30	71	-146.17	76	66,68,71,76,81
18S 34E 20 323	SCHARBAUER CATTLE CO.	ALVM	-96.30	2-20	+2.73	-96.30	81	-101.39	66	61,66,71,76,81
18S 34E 22 334	CONOCO	OGLL	-110.92	1-06	-0.93	-109.22	67	-110.92	81	61,65-77,79-81
18S 34E 27 333	SCHARBAUER CATTLE CO.	OGLL	-110.10	2-20	+0.57	-110.10	81	-110.62	76	61,66,71,76,81
18S 34E 29 112	UNKNOWN	ALVM	-57.06	2-20	+0.41	-57.06	81	-61.93	68	68,71,76,81
18S 34E 30 211	IREX COMPANY	ALVM	-43.24	2-20	+0.25	-43.24	81	-44.79	66	61,66,71,76,81
18S 35E 01 121	R. D. LEE	OGLL	-46.57	3-05	-4.27	-41.39	71	-46.57	81	71,76,81
18S 35E 02 142	R. D. LEE	OGLL	-43.80	3-11	-3.00	-37.42	61	-43.80	81	61,66,71,76-77,81
18S 35E 03 412	R. D. LEE	OGLL	-51.92	3-11	-2.88	-45.66	61	-51.92	81	61,66,71,76,81
18S 35E 04 431	UNKNOWN	OGLL	-56.77	3-10	+4.51	-56.77	81	-61.28	76	66,71,76,81
18S 35E 06 233	VIOLA LEE	OGLL	-92.14	3-11	-8.82	-83.32	76	-92.14	81	73,76,81
18S 35E 06 344	A. W. THOMPSON, INC.	OGLL	-91.00	3-06	-	-91.00	81	-91.00	81	77,81
18S 35E 07 313	MOBIL OIL CO.	OGLL	-93.78	3-06	+2.40	-93.78	81	-98.16	71	71,76,81
18S 35E 07 423	NATIONAL POTASH CO.	OGLL	-82.70	3-06	-0.53	-82.17	76	-82.70	81	76,81
18S 35E 10 223	MANAGAN OIL CO.	OGLL	-53.02	3-11	-4.09	-47.31	66	-53.02	81	66,71,76,81
18S 35E 11 331	R. D. LEE	OGLL	-52.01	3-11	-	-52.01	81	-52.01	81	81
18S 35E 11 333	R.D. LEE	OGLL	-44.67	3-11	-7.19	-37.48	76	-44.67	81	61,66,71,76,81
18S 35E 16 122	SCHARBAUER CATTLE CO.	OGLL	-76.66	3-11	-13.24	-63.42	76	-76.66	81	71,76,81
18S 35E 17 411	N. MEX. ELECTRIC SERV.	OGLL	-75.94	1-06	-1.32	-69.46	56	-75.94	81	53-81
18S 35E 19 133	SCHARBAUER CATTLE CO.	OGLL	-70.46	3-10	-1.18	-69.28	76	-70.46	81	61,66,71,76,81
18S 35E 20 214	N. MEX. ELECTRIC SERV.	OGLL	-75.12	1-06	-1.44	-72.16	61	-75.12	81	53-58,60-77,81
18S 35E 20 411	N. MEX. ELECTRIC SERV.	OGLL	-77.90	3-13	-1.05	-75.70	56	-77.90	81	53-58,60-62,67,71,76,81
18S 35E 21 440	NISS. CHEMICAL CORP.	OGLL	-76.68D	3-06	-	-64.38	71	-64.76	61	61,66,71,81
18S 35E 22 430	NISS. CHEMICAL CORP.	OGLL	-57.42	3-13	-	-57.42	81	-57.42	81	81
18S 35E 28 322	SCARBAUER CATTLE CO.	OGLL	-50.65	3-06	-1.38	-49.27	76	-52.02	61	61,66,71,76,81
18S 35E 31 142	SNYDER CATTLE CO.	OGLL	-69.21	3-10	+1.06	-69.21	81	-70.27	76	71,76,81
18S 35E 34 431	SNYDER RANCHES	OGLL	-26.41	3-06	-1.39	-25.02	76	-26.41	81	76,81
18S 36E 01 131	DOROTHY T. SCHARBAUER	OGLL	-33.47	3-05	-2.74	-30.73	76	-33.47	81	61,66,71,76,81
18S 36E 03 241	DOROTHY SCHARBAUER	OGLL	-51.93	3-05	-3.46	-46.16	71	-51.93	81	61,66,71,76,81
18S 36E 04 411	SNYDER RANCH	OGLL	-54.89	3-04	-	-54.89	81	-54.89	81	81
18S 36E 05 411	S. W. P. S. C.	OGLL	-58.56	3-03	-0.83	-49.49	66	-58.56	81	61,66,71,76,81
18S 36E 06 322	S. W. P. S. C.	OGLL	-52.36	3-03	-0.61	-46.39	66	-52.36	81	61,66,71,76,81
18S 36E 07 322	S. W. P. S. C.	OGLL	-55.74	3-03	-1.18	-50.50	66	-55.74	81	61,66,71,76,81
18S 36E 08 144	S. W. P. S. C.	OGLL	-54.52	3-05	-2.83	-45.67	66	-54.52	81	61,66,71,76,81
18S 36E 09 411	S. W. P. S. C.	OGLL	-50.69	3-03	-2.70	-40.39	66	-50.69	81	61,66,71,76,81
18S 36E 10 411	S. W. P. S. C.	OGLL	-48.67	3-03	-1.86	-37.43	66	-48.67	81	61,66,71,76,81
18S 36E 11 144	S. W. P. S. C.	OGLL	-56.25	3-03	-0.80	-45.78	61	-56.25	81	61,66,71,76,81
18S 36E 12 233	JOHN P. JOYCE	OGLL	-37.97	3-05	-3.23	-30.02	61	-37.97	81	61,66,71,76,81
18S 36E 12 311	S. W. P. S. C.	OGLL	-43.18	3-03	-3.00	-39.92	71	-43.18	81	61,66,71,76,81
18S 36E 13 144	S. W. P. S. C.	OGLL	-31.36	3-04	-2.95	-25.62	71	-31.36	81	71,76,81
18S 36E 14 144	S. W. P. S. C.	OGLL	-49.10	3-04	-4.41	-37.69	61	-49.10	81	61,66,71,76,81
18S 36E 15 144	S. W. P. S. C.	OGLL	-54.29	3-04	-2.55	-45.93	66	-54.29	81	61,66,71,76,81
18S 36E 15 433	UNKNOWN	OGLL	-46.29	3-04	-	-46.29	81	-46.29	81	81
18S 36E 16 411	S. W. P. S. C.	OGLL	-52.53	3-05	-1.54	-43.51	66	-52.53	81	61,66,71,76,81
18S 36E 17 322	S. W. P. S. C.	OGLL	-49.83	3-05	-4.84	-39.86	66	-49.83	81	61,66,71,76,81
18S 36E 18 144	S. W. P. S. C.	OGLL	-55.30	3-04	-5.66	-39.52	61	-55.30	81	61,66,71,76,81
18S 36E 19 322	S. W. P. S. C.	OGLL	-58.12	3-05	-8.53	-48.70	66	-58.12	81	61,66,71,76,81
18S 36E 20 411	S. W. P. S. C.	OGLL	-51.05	3-04	+2.25	-44.28	66	-53.30	76	61,66,71,76,81
18S 36E 21 411	S. W. P. S. C.	OGLL	-50.13	3-04	-0.38	-44.08	66	-50.13	81	61,66,71,76,81

C nearby well being pumped
D nearby well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
18S 36E 22 322	S. W. P. S. C.	OGLL	-52.16	3-04	-3.06	-37.96	66	-52.16	81	66,71,76,81
18S 36E 23 113	N. M. ELEC. SERVICE CO.	OGLL	-46.92	3-03	-2.76	-36.80	71	-46.92	81	71,76,81
18S 36E 23 322	N. M. ELECT. SERV. CO.	OGLL	-47.72	3-03	-6.65	-40.41	71	-47.72	81	71,76,81
18S 36E 24 233	N. M. ELEC. SERV. CO.	OGLL	-45.32	3-03	-6.99	-31.68	71	-45.32	81	71,76,81
18S 36E 24 313	DAN EVANS	OGLL	-42.70	2-27	-5.52	-27.45	66	-42.70	81	61,66,71,76,81
18S 36E 25 234	EVANS	OGLL	-43.17	2-27	-	-32.07	71	-43.17	81	66,71,81
18S 36E 25 423	N. MEX. ELECTRIC SERV.	OGLL	-52.66	2-27	-5.02	-47.64	76	-52.66	81	76,81
18S 36E 26 233	N. MEX. ELECTRIC SERV.	OGLL	-52.92	2-27	-5.52	-44.53	71	-52.92	81	71,76,81
18S 36E 27 111	W. M. SNYDER	OGLL	-48.44	1-06	-3.81	-38.13	43	-48.44	81	39-81
18S 36E 27 233	N. MEX. ELECTRIC SERV.	OGLL	-58.06	3-04	-17.89	-40.17	76	-58.06	81	71,76,81
18S 36E 28 411	S. W. P. S. C.	OGLL	-36.75	3-05	+0.06	-36.75	81	-40.74	71	61,66,71,76,81
18S 36E 29 372	S. W. P. S. C.	OGLL	-53.35	3-04	-0.37	-47.22	66	-53.35	81	61,66,71,76,81
18S 36E 31 133	W. M. SNYDER	OGLL	-46.32	3-06	-3.31	-43.01	76	-46.32	81	61,66,71,76,81
18S 36E 33 313	W. M. SNYDER	OGLL	-53.49	3-04	-4.34	-49.15	76	-53.49	81	61,76,81
18S 36E 34 372	N. MEX. ELECTRIC SERV.	OGLL	-60.95	2-27	-11.24	-49.71	76	-60.95	81	71,76,81
18S 36E 35 233	N. MEX. ELECTRIC SERV.	OGLL	-60.44	3-03	+2.18	-50.37	71	-62.62	76	71,76,81
18S 36E 36 422	EL PASO NAT. GAS CO.	OGLL	-72.97	3-11	-	-60.90	61	-72.97	81	61,71,76,81
18S 37E 01 132	CITY OF HOBBS	OGLL	-45.94	2-24	-	-35.38	61	-46.08	71	61,66,71,76,81
18S 37E 01 432	CITY OF HOBBS	OGLL	-41.05	2-24	-	-34.42	66	-41.05	81	61,66,71,76,81
18S 37E 04 211	CHARLES D. BLAKEY	OGLL	-46.64	2-25	+5.18	-37.04	61	-51.82	76	61,66,69,71,76,81
18S 37E 04 444	CRAWFORD CULP	OGLL	-36.33	2-25	-	-36.33	81	-36.33	81	61,66,71,81
18S 37E 06 112	CHARLES D. BLAKEY	OGLL	-45.61	2-25	-11.07	-34.59	76	-45.61	81	71,76,81
18S 37E 06 421	CHARLES BALKEY	OGLL	-35.83	2-25	-	-30.51	66	-35.83	81	61,66,71,81
18S 37E 07 133	CRAWFORD CULP	OGLL	-32.33	2-25	-3.28	-27.49	66	-32.33	81	66,71,76,81
18S 37E 10 333	SHIPP ESTATE	OGLL	-30.56	2-25	-1.48	-25.97	61	-30.56	81	61,66,71,76,81
18S 37E 13 431	UNKNOWN	OGLL	-25.39	2-24	-5.14	-20.25	76	-25.39	81	71,76,81
18S 37E 14 241	H. G. HUSTON	OGLL	-26.71	2-25	-3.61	-23.10	76	-26.71	81	61,66,71,76,81
18S 37E 14 344	GULF OIL CO.	OGLL	-28.40	2-24	-3.45	-24.95	76	-28.89	66	61,66,71,76,81
18S 37E 15 221	T. SHIPP	OGLL	-31.63	2-25	-3.45	-28.18	76	-31.63	81	61,66,71,76,81
18S 37E 15 444	SHIPP ESTATE	OGLL	-26.61	2-14	-3.59	-23.02	76	-26.61	81	61,71,76,81
18S 37E 16 111	SHIPP ESTATE	OGLL	-32.81	2-25	-2.53	-30.28	76	-32.81	81	61,66,71,76,81
18S 37E 18 413	GEO. A. GRAHAM SR.	OGLL	-33.09	2-25	-4.23	-25.73	61	-33.09	81	61,66,71,76,81
18S 37E 20 341	MRS. T. SHIPP	OGLL	-34.41	2-25	-4.34	-26.65	61	-34.41	81	61,66,71,76,81
18S 37E 21 423	ELBERT SHIPP	OGLL	-25.18	4-01	-3.80	-21.38	76	-25.18	81	61,66,71,76,81
18S 37E 23 131	UNKNOWN	OGLL	-24.72	2-24	-3.95	-20.77	76	-24.72	81	71,76,81
18S 37E 23 441	JOHN YATES	OGLL	-24.52	2-24	-4.26	-19.53	61	-24.52	81	57,61,66,71,76,81
18S 37E 24 444	UNKNOWN	OGLL	-32.09	2-24	-	-32.09	81	-32.09	81	81
18S 37E 25 422	HUMBLE OIL CO.	OGLL	-36.24	2-24	-3.99	-23.44	61	-36.24	81	61,71,76,81
18S 37E 27 133	WAYNE COCHRAN	OGLL	-29.17	2-27	-3.27	-25.90	76	-29.17	81	71,76,81
18S 37E 29 222	NORTHERN NATL. GAS CO.	OGLL	-34.53	2-25	-	-34.53	81	-34.53	81	81
18S 37E 29 313	E. W. COX	OGLL	-41.14	2-25	-4.12	-35.88	66	-41.14	81	66,71,76,81
18S 37E 30 133	JAMES L. EVANS	OGLL	-46.14	2-25	-6.80	-39.34	76	-46.14	81	76,81
18S 37E 32 133	VIRGIL LINAM	OGLL	-45.13B	4-01	-	-41.86	71	-41.86	71	71,76,81
18S 37E 32 212	VIRGIL LINAM ESTATE	OGLL	-35.79	2-25	-	-35.79	81	-35.79	81	81
18S 37E 33 221	MRS. VIRGIL LINAM	OGLL	-29.71	2-27	-	-24.86	66	-29.71	81	66,71,81
18S 37E 34 313	E. W. COX	OGLL	-29.20	2-27	-3.33	-25.87	76	-29.20	81	66,71,76,81
18S 37E 35 111	E. H. KLETN	OGLL	-26.30	2-27	-4.09	-22.21	76	-26.30	81	61,66,71,76,81
18S 37E 36 242	CITY OF EUNICE	OGLL	-43.71	2-24	-	-43.71	81	-43.71	81	81
18S 38E 01 211	A. H. HUGHES	OGLL	-94.84	4-01	-11.87	-67.56	61	-94.84	81	61,66,71,76,81
18S 38E 02 142	E. L. BRYSON	OGLL	-76.44	4-01	-9.94	-42.50	61	-76.44	81	61,66,69,71,76,81
18S 38E 03 113	HENRY MCQUEEN	OGLL	-64.54	4-01	-8.21	-37.40	61	-64.54	81	61,66,71,76,81
18S 38E 03 313	GEORGE MOONEY, JR.	OGLL	-66.11	1-06	-9.17	-29.68	52	-66.11	81	52-81
18S 38E 03 413	R. D. TRAGUE	OGLL	-68.82	4-01	-10.46	-37.56	61	-68.82	81	61,66,71,76,81
18S 38E 05 122	PHILLIP SMITH	OGLL	-56.34	4-02	-4.71	-46.27	66	-56.34	81	66,71,76,81
18S 38E 09 121	KNOWLES, INC.	OGLL	-59.14	4-01	-7.41	-44.99	71	-59.14	81	71,76,81
18S 38E 10 331	NADINE LOVELADY	OGLL	-69.75	4-01	-7.88	-36.62	61	-69.75	81	61,66,71,76,81
18S 38E 11 132	TAYLOR RANCH	OGLL	-70.52	4-07	-12.12	-38.17	61	-70.52	81	61,66,71,76,81
18S 38E 12 144	X-PERT WELL SERVICE	OGLL	-98.66	4-01	-13.79	-73.73	71	-98.66	81	71,76,81
18S 38E 13 311	TAYLOR RANCH	OGLL	-73.28	4-07	-10.01	-49.75	66	-73.28	81	61,66,71,76,81
18S 38E 14 111	BEN GAMBLIN	OGLL	-69.68	4-01	-9.68	-36.90	61	-69.68	81	61,66,69,71,76,81
18S 38E 15 241	BEN RANDOLPH	OGLL	-73.19	4-02	-8.11	-58.15	71	-73.19	81	71,76,81
18S 38E 16 142	DEL NORTE HEIGHTS	OGLL	-82.10	4-01	-8.31	-44.87	61	-82.10	81	61,66,71,76,81
18S 38E 16 443	CITY OF HOBBS	OGLL	-76.21	4-07	-3.80	-67.11	71	-76.21	81	71,76,81
18S 38E 17 232	N.M. DEPT OF GAME&FISH	OGLL	-59.97	4-01	-	-59.97	81	-59.97	81	81
18S 38E 18 344	H. G. HUSTON	OGLL	-31.80	4-02	-3.46	-27.27	61	-31.80	81	61,66,71,76,81
18S 38E 19 413	CHARLES H. JONES	OGLL	-35.28	4-02	-	-24.37	49	-35.28	81	49-58,81
18S 38E 20 213	CITY OF EUNICE	OGLL	-49.31	4-02	-2.89	-39.98	61	-49.31	81	61,66,71,76,81
18S 38E 22 211	W. D. SPOONEMORE	OGLL	-89.54	4-02	-8.01	-74.31	71	-89.54	81	71,76,81
18S 38E 28 234	E. C. BENNETT	OGLL	-65.10	4-02	-4.00	-50.75	61	-65.10	81	61,66,71,76,81
18S 38E 29 421	TIDEWATER OIL CO.	OGLL	-58.45	4-02	-5.70	-42.69	61	-58.45	81	61,66,76,81
18S 38E 30 241	WAYNE PITTMAN	OGLL	-39.12	4-02	-	-39.12	81	-39.12	81	57,81
18S 38E 30 332	OHIO OIL CO.	OGLL	-36.52	4-02	-	-36.52	81	-36.52	81	57,76,81
18S 38E 31 322	MOBIL OIL CO.	OGLL	-35.83	4-02	-	-35.83	81	-35.83	81	76,81
18S 38E 36 122	HOBBS MUN SCHOOLS	OGLL	-87.22	4-06	-4.91	-69.11	61	-87.22	81	61,66,71,76,81
18S 39E 05 214	UNKNOWN	OGLL	-92.64	4-06	-5.60	-83.03	71	-92.64	81	71,76,81
18S 39E 06 444	LOWELL PAYTON	OGLL	-96.37	1-06	-	-94.50	80	-96.37	81	80-81
18S 39E 07 133	JOHN SMITH	OGLL	-121.72C	4-06	-16.45	-80.16	66	-105.27	76	66,71,76,81
18S 39E 08 433	CHARLICIA TAYLOR	OGLL	-73.55	4-06	-4.93	-61.25	66	-73.55	81	61,66,71,76,81
18S 39E 19 111	CHARLICIA TAYLOR	OGLL	-55.87A	4-07	-4.97	-39.33	66	-50.90	76	61,66,71,76,81
18S 39E 20 411	KENNETH TIPTON	OGLL	-77.85	4-06	-4.39	-62.13	61	-77.85	81	61,66,71,76,81

A well being pumped
B well pumped recently
C nearby well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
18S 39E 30 232	RICE ENGINEERING	OGLL	-82.18	4-06	-	-82.18	81	-82.18	81	77,81
18S 39E 31 222	JESSIE MILLS	OGLL	-91.03	4-06	-4.08	-71.63	61	-91.03	81	61,66,71,76,81
19S 33E 05 123	UNKNOWN	SNRS	-417.17	2-05	-	-417.17	81	-417.17	81	68,76,81
19S 33E 17 112	UNKNOWN	ALVM	-116.84	2-05	-	-116.84	81	-118.01	68	65,68,71,76,81
19S 33E 18 133	PAN AMERICAN PET.	SNRS	-372.45	2-05	-	-372.45	81	-372.45	81	81
19S 33E 26 422	MARK SMITH	ALVM	-92.97	1-29	-	-90.48	68	-92.97	81	68,71,76,81
19S 34E 03 412	SCHARBAUER CATTLE CO.	OGLL	-104.90	1-28	-2.78	-102.12	76	-105.19	61	61,66,71,76,81
19S 34E 06 341	SCHARBAUER CATTLE CO.	SNRS	-230.51	1-28	+2.44	-230.51	81	-243.16	71	68,71,76,81
19S 34E 09 242	SCHARBAUER CATTLE CO.	ALVM	-28.71	1-28	-0.51	-27.47	61	-28.76	71	54,58,61,66,68,71,76,81
19S 34E 12 244	W. M. SNYDER	OGLL	-75.48	1-28	-0.67	-74.81	76	-75.48	81	61,66,71,76,81
19S 34E 16 334	GULF OIL CORP	SNRS	-231.32	1-28	-	-231.32	81	-247.64	71	68,71,76,81
19S 34E 31 232	MARK SMITH	ALVM	-147.86A	1-28	-	-	-	-	-	76,81
19S 35E 02 244	MARY JEFF HOOPER	OGLL	-27.94	1-27	---	-27.94	81	-28.29	71	61,66,71,76,81
19S 35E 02 313	W. M. SNYDER	OGLL	-16.59	1-27	-0.98	-15.61	76	-16.59	81	61,66,71,76,81
19S 35E 04 431	SMITH	OGLL	-83.74	1-27	-	-83.74	81	-83.74	81	81
19S 35E 05 121	GENE T. DALMONT	OGLL	-45.36	1-28	-0.72	-44.64	76	-49.73	61	61,66,71,76,81
19S 35E 05 422	JEWEL SMITH	OGLL	-48.57	1-27	-	-48.57	81	-50.52	71	61,66,71,81
19S 35E 06 133	GENE DALMONT	OGLL	-61.27	1-28	-0.61	-60.66	76	-62.06	66	61,66,71,76,81
19S 35E 06 422	GENE DALMONT	OGLL	-51.38	1-28	-0.60	-50.78	76	-51.38	81	61,66,76,81
19S 35E 09 133	JEWEL SMITH	OGLL	-18.85	1-27	-1.05	-17.80	76	-18.85	81	54,61,66,71,76,81
19S 35E 10 433	MARY J. HOOPER	OGLL	-31.73A	1-27	-	-	-	-	-	66,81
19S 35E 12 134	W. M. SNYDER	ALVM	-22.94	1-27	-2.64	-20.30	76	-22.94	81	61,66,71,76,81
19S 35E 12 443	FOWLER RANCH	ALVM	-34.14	1-27	-	-34.14	81	-34.14	81	81
19S 35E 13 343	SNYDER RANCH	ALVM	-28.74	1-27	-	-28.74	81	-28.74	81	81
19S 35E 15 334	STATE	ALVM	-14.45	1-27	-0.10	-14.35	76	-14.73	61	61,66,71,76,81
19S 35E 16 134	THELMA LINAM	ALVM	-18.53	1-27	-	-18.53	81	-19.07	61	61,66,71,76,81
19S 35E 17 211	J. D. ROBERTS	ALVM	-23.81	1-27	-2.68	-21.13	76	-26.90	71	54,61,66,71,76,81
19S 35E 22 143	C. M. FRAZIER	ALVM	-16.54	1-27	-0.27	-16.27	76	-17.01	66	61,66,71,76,81
19S 35E 24 222	F.K. TURNER	ALVM	-21.52	1-27	-	-17.78	47	-21.52	81	29,39-58,81
19S 35E 24 422	MRS. R. E. HUGHES	ALVM	-19.14	1-27	-0.45	-17.58	61	-19.14	81	61,66,76,81
19S 35E 25 434	H. S. RECORD	ALVM	-23.24	1-27	-2.14	-21.10	76	-23.24	81	53,61,66,71,76,81
19S 35E 35 211	PAT & L.V. SIMS	ALVM	-25.17	1-27	-	-25.17	81	-25.17	81	81
19S 36E 03 144	GULF OIL CORP.	OGLL	-83.17	1-21	-	-49.17	61	-83.17	81	61,81
19S 36E 04 222	JIM GIBBS	OGLL	-55.47	1-21	-4.74	-50.73	76	-55.47	81	76,81
19S 36E 05 411	SNYDER RANCHES INC.	OGLL	-51.70	1-27	-2.36	-49.34	76	-51.70	81	76,81
19S 36E 06 214	W. M. SNYDER	OGLL	-50.26	1-27	-3.73	-46.53	76	-50.26	81	61,66,71,76,81
19S 36E 11 333	CLIMAX CHEMICAL CO.	OGLL	-66.73	2-03	-	-66.73	81	-66.73	81	81
19S 36E 13 111	EL PASO NAT. GAS CO.	OGLL	-51.63	1-21	+2.25	-51.03	71	-59.77	66	61,66,71,76,81
19S 36E 13 142	EL PASO NAT. GAS CO.	OGLL	-59.81	1-21	+4.87	-59.81	81	-69.30	71	66,71,76,81
19S 36E 19 113	LOUIS EVANS ESTATE	ALVM	-17.94	1-06	-2.31	-15.06	47	-17.94	80	39-81
19S 36E 22 122	CLIMAX CHEMICAL CO.	OGLL	-67.43	1-27	-	-67.43	81	-67.43	81	81
19S 36E 23 123	TEXACO	OGLL	-62.53	1-27	-	-62.53	81	-62.53	81	81
19S 36E 24 323	WARREN PETROLEUM CO.	ALVM	-67.23	1-21	-1.50	-62.62	61	-67.23	81	61,66,71,76,81
19S 36E 26 242	JIM COOPER	ALVM	-15.97	1-22	-1.41	-14.56	76	-15.97	81	61,66,71,76,81
19S 36E 27 423	AMOS PERSONS	ALVM	-19.87	1-27	-0.17	-18.89	66	-19.87	81	66,71,76,81
19S 36E 28 422	ADI K. HALL	OGLL	-46.88	1-27	-	-46.88	81	-46.88	81	76,81
19S 36E 30 122	B. F. HUGHES	OGLL	-20.62	1-21	-	-20.62	81	-20.62	81	81
19S 36E 31 141	F. K. TURNER	ALVM	-24.13A	1-27	-5.62	-18.51	76	-18.51	76	61,66,71,76,81
19S 36E 32 114	F. K. TURNER	ALVM	-21.32	1-27	-1.12	-20.20	76	-21.32	81	66,71,76,81
19S 36E 33 333	H. S. RECORD	ALVM	-28.43	1-27	-0.17	-28.26	76	-29.67	71	61,66,71,76,81
19S 36E 33 444	UNKNOWN	ALVM	-40.77	1-27	-3.71	-37.06	76	-40.77	81	76,81
19S 36E 34 212	JIM COOPER	ALVM	-18.48	1-27	-0.28	-18.20	76	-18.48	81	76,81
19S 36E 35 313	TOM HUSTICK	ALVM	-44.11	1-21	+1.22	-44.11	81	-48.15	71	61,66,71,76,81
19S 36E 35 343	T. F. HUSTICK	ALVM	-36.26	1-21	+2.81	-36.26	81	-39.09	76	76,81
19S 37E 01 222	HOBBS COUNTRY CLUB	OGLL	-51.08	1-15	-1.11	-24.05	61	-51.08	81	61,66,71,76,81
19S 37E 02 224	LEA CO. AIRPORT	OGLL	-22.63	1-15	-3.61	-16.99	61	-22.63	81	61,76,81
19S 37E 04 113	MRS. VIRGIL LINAM	OGLL	-28.35	1-15	-3.81	-20.44	61	-32.14	71	61,66,71,76,81
19S 37E 04 213	E. W. COX	OGLL	-38.06	1-15	-3.06	-35.00	76	-38.06	81	76,81
19S 37E 05 321	MRS. VIRGIL LINAM	OGLL	-38.35	1-15	-2.89	-29.97	61	-38.35	81	61,66,71,76,81
19S 37E 06 212	NORTHERN NATURAL	OGLL	-56.25	1-15	-	-56.25	81	-56.25	81	81
19S 37E 07 223	HARRY HUSTON	OGLL	-48.40	1-15	-3.46	-38.99	61	-48.40	81	61,66,68,71,76,81
19S 37E 07 313	GULF - WARREN	OGLL	-58.04	1-15	-	-58.04	81	-58.04	81	81
19S 37E 08 311	UNKNOWN	OGLL	-44.96	1-15	-1.87	-41.64	66	-44.96	81	61,66,71,76,81
19S 37E 08 333	FAHARTSS	OGLL	-53.47	1-21	+14.41	-53.47	81	-67.88	76	76,81
19S 37E 08 411	R. H. HUSTON JR.	OGLL	-39.24	1-15	-2.44	-32.26	61	-39.24	81	61,71,76,81
19S 37E 10 243	R. H. HUSTON	OGLL	-29.75	1-15	-1.20	-27.32	61	-30.00	71	61,66,71,76,81
19S 37E 11 131	R. H. HUSTON	OGLL	-21.45	1-21	-	-19.93	61	-21.45	81	61,66,71,76,81
19S 37E 11 232	R. H. HUSTON	OGLL	-21.49	1-21	-1.06	-20.43	76	-21.81	61	61,76,81
19S 37E 12 222	CITY OF EUNICE	OGLL	-39.69	1-21	-	-39.69	81	-39.69	81	81
19S 37E 13 413	BILL TERRY	OGLL	-22.72	1-20	-0.87	-21.90	76	-22.72	81	61,66,71,76,81
19S 37E 15 111	TIDEWATER OIL CO.	OGLL	-38.50	1-15	-0.70	-37.30	66	-39.32	61	61,66,71,76,81
19S 37E 16 233	HARRY HUSTON	OGLL	-25.78	1-15	-1.08	-24.70	76	-25.78	81	61,66,71,76,81
19S 37E 17 134	W. M. SNYDER	OGLL	-62.80	1-15	+0.12	-60.94	66	-62.92	76	66,68,71,76,81
19S 37E 17 431	HARRY HUSTON	OGLL	-32.88	1-15	-2.33	-30.55	76	-32.88	81	61,66,71,76,81
19S 37E 18 111	AMERADA OIL CO.	OGLL	-57.56	1-15	+3.24	-57.56	81	-65.46	66	61,66,71,76,81
19S 37E 19 113	PHILLIPS PET. CO.	OGLL	-56.77	1-16	+1.10	-54.95	61	-57.87	76	61,66,71,76,81
19S 37E 19 321	UNKNOWN	OGLL	-58.44	1-16	+0.54	-58.44	81	-58.98	76	76,81
19S 37E 21 132	UNKNOWN	OGLL	-24.72	1-15	-	-24.72	81	-24.22	81	81
19S 37E 21 431	LYMAN ARMSPIGER	OGLL	-16.00	1-15	+0.04	-14.95	61	-17.07	68	61,66,68-76,81
19S 37E 23 334	BILL TERRY	OGLL	-24.36	1-16	-1.92	-22.44	76	-27.70	66	66,71,76,81

A well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
19S 37E 25 424	MCNEIL	OGLL	-38.13	1-20	-0.69	-37.44	76	-38.13	81	76,81
19S 37E 28 424	DERL TIDWELL	ALVM	-18.23	1-16	-1.10	-16.67	61	-18.73	81	61,66,71,76,81
19S 37E 29 322	MONUMENT WATER WORKS	ALVM	-17.50	1-16	-	-17.50	81	-17.50	81	81
19S 37E 29 333	W. M. SNYDER	ALVM	-13.54A	1-16	-0.57	-12.97	76	-12.97	76	54,61,66,76,81
19S 37E 31 334	CARROLL BYRD	ALVM	-24.88	1-16	-0.06	-24.82	76	-24.88	81	76,81
19S 37E 31 422	ROBERT MURPHY	ALVM	-16.91	1-16	-	-16.91	81	-17.71	66	61,66,81
19S 37E 32 314	UNKNOWN	ALVM	-10.74	1-20	+0.03	-10.74	81	-10.77	76	76,81
19S 37E 33 444	COY DOYAL	ALVM	-29.98	1-20	-6.41	-23.57	76	-30.37	66	61,66,71,76,81
19S 37E 34 112	W. O. SHAW	OGLL	-23.54	1-20	-2.23	-21.31	76	-24.66	71	66,71,76,81
19S 37E 35 212	MCNEILL AND TERRY	OGLL	-22.37	1-20	-1.27	-21.10	76	-22.37	81	61,66,71,76,81
19S 38E 01 132	S. L. SHELTON	OGLL	-68.34	1-07	-	-56.33	61	-68.34	81	61,66,71,76,81
19S 38E 01 443	MELVIN PERKINS	OGLL	-84.17	1-06	-	-84.37	81	-91.13	71	61,66,71,81
19S 38E 02 242	R. P. WARF	OGLL	-58.71	1-06	-10.22	-42.01	61	-58.71	81	61-76,81
19S 38E 03 232	TURNERS LAUNDRY	OGLL	-52.06	1-13	-	-52.06	81	-52.06	81	81
19S 38E 04 333	TEXACO	OGLL	-17.56	1-14	-	-17.56	81	-17.56	81	57,76,81
19S 38E 04 441	AMOCO PRODUCTION CO.	OGLL	-32.53	1-13	-2.39	-30.14	76	-33.76	72	72,76,81
19S 38E 05 212	PUMPING UNITS SERVICES	OGLL	-28.50	1-13	-	-28.50	81	-28.50	81	81
19S 38E 06 223	CLARA FOWLER	OGLL	-37.51	1-13	-1.49	-29.74	61	-37.51	81	61,66,71,76,81
19S 38E 08 122	W. K. BYROM	OGLL	-18.16	1-13	-1.83	-16.05	61	-18.55	71	61,66,71,76,81
19S 38E 09 233	WILL TERRY	OGLL	-18.96	1-14	-1.22	-17.74	76	-21.37	61	61,66,76,81
19S 38E 10 144	D. C. THORP	OGLL	-39.62	1-13	-6.22	-33.40	76	-39.62	81	61,71,76,81
19S 38E 10 433	WALKER OIL CORP.	OGLL	-27.70	1-13	-	-27.70	81	-27.70	81	57,81
19S 38E 11 131	DUNNAM	OGLL	-38.59	1-07	-11.70	-26.89	76	-38.59	81	72,76,81
19S 38E 11 224	CITY OF HOBBS	OGLL	-53.88	1-07	-8.79	-45.09	76	-53.88	81	72,76,81
19S 38E 13 111	JAMES A. SELMAN	OGLL	-85.45	1-07	-6.50	-78.95	76	-85.45	81	76,81
19S 38E 15 444	D. D. EDWARDS	OGLL	-48.96	1-07	-3.56	-45.40	76	-57.24	66	61,66,71,76,81
19S 38E 17 444	UNKNOWN	OGLL	-37.62B	1-14	-2.57	-35.05	76	-35.05	76	76,81
19S 38E 18 124	C. R. COCHRAN	OGLL	-17.75	1-14	-2.35	-14.81	61	-18.55	71	61,66,71,76,81
19S 38E 19 122	MC NEILL RANCH	OGLL	-21.24	1-14	-	-21.24	81	-21.24	81	81
19S 38E 19 344	ADELIA F. BLAKEY	OGLL	-35.05	1-14	-	-35.05	81	-35.05	81	29,81
19S 38E 19 424	G. M. GREGORY	OGLL	-28.56	1-14	-1.74	-26.82	76	-30.00	66	61,66,68,71,76,81
19S 38E 21 213	S. P. YATES	OGLL	-39.49	1-14	-1.62	-37.87	76	-40.57	71	71,76,81
19S 38E 21 411	WILL TERRY	OGLL	-33.24	1-14	+4.41	-33.24	81	-39.89	61	61,66,68,71,76,81
19S 38E 23 221	JACK WRIGHT	OGLL	-60.13	1-06	-2.03	-58.10	76	-60.13	81	72,76,81
19S 38E 25 423	GLEN HOLMES	OGLL	-50.06	1-08	-4.16	-45.90	76	-50.06	81	67,71,76,81
19S 38E 26 223	JACK WRIGHT	OGLL	-73.47	1-08	-0.54	-72.93	76	-73.47	81	72,76,81
19S 38E 26 443	TEXACO INC.	OGLL	-59.16	1-08	-0.75	-58.41	76	-59.66	71	66,71,76,81
19S 38E 27 111	C. W. JOBE	OGLL	-42.11	1-08	-2.11	-40.00	76	-45.09	66	61,66,68,71,76,81
19S 38E 27 222	C. W. JOBE	OGLL	-47.41	1-08	+0.97	-47.41	81	-48.44	61	61,66,68,71,76,81
19S 38E 29 312	MRS. MCNEILL	OGLL	-35.49	1-14	-	-35.49	81	-35.49	81	66,68,71,81
19S 38E 30 221	G. M. GREGORY	OGLL	-29.14	1-06	-0.61	-28.53	76	-30.54	78	74-79,81
19S 38E 30 232	G. M. GREGORY	OGLL	-49.70	1-14	-2.32	-46.88	76	-49.70	81	61,66,68,71,76,81
19S 38E 34 113	J. T. WILSON	OGLL	-37.13	1-08	-2.77	-34.36	76	-39.89	71	61,66,71,76,81
19S 38E 34 221	COLLINS WALKER	OGLL	-53.01	1-06	-3.41	-42.27	49	-55.05	72	49-59,61-81
19S 38E 35 324	EMILIO LUCERO	OGLL	-57.12	1-16	+3.33	-57.12	81	-63.67	68	67-68,71,76,81
19S 38E 35 343	EMILIO LUCERO	OGLL	-35.68	1-15	+13.52	-35.68	81	-49.20	76	66,71,76,81
19S 38E 35 444	D. JEFFCOAT	ALVM	-45.78	1-08	+2.72	-45.78	81	-48.50	76	76,81
19S 38E 36 223	LOUIS & D. H. EUBANK	OGLL	-50.80	1-16	-	-48.39	71	-50.80	81	67,71,81
19S 39E 05 134	JACK WRIGHT	OGLL	-62.19	1-08	-4.26	-77.93	76	-82.19	81	71,76,81
19S 39E 06 111	D. S. CARSON	OGLL	-91.34	1-06	-	-91.34	81	-91.34	81	81
19S 39E 06 222	BILL THOMPSON	OGLL	-80.71	1-06	-4.31	-73.54	71	-80.71	81	66,71,76,81
19S 39E 06 333	MILK INC.	OGLL	-100.78	1-06	-3.64	-96.64	76	-100.78	81	76,81
19S 39E 18 132	JAMES SELMAN	OGLL	-76.69	1-07	-	-76.69	81	-76.69	81	81
19S 39E 18 421	JACK WRIGHT	OGLL	-65.75	1-07	-2.23	-63.52	76	-65.75	81	61,66,71,76,81
19S 39E 19 333	JACK WRIGHT	OGLL	-49.42A	1-07	-1.40	-48.02	76	-48.02	76	71,76,81
19S 39E 29 133	JACK WRIGHT	OGLL	-97.60	1-07	-7.33	-80.54	61	-97.60	81	61,66,68,71,76,81
19S 39E 30 344	D. D. EDWARDS	OGLL	-56.75	1-07	-2.69	-52.79	66	-56.75	81	66,68,71,76,81
19S 39E 31 223	ANNA L. FOSTER	OGLL	-74.59	1-07	-2.97	-71.62	76	-74.59	81	61,66,68-69,71,76,81
20S 32E 23 433	BILL STANFORD	CHNL	-36.78	2-19	-	-36.78	81	-37.46	71	68,71,81
20S 32E 23 433	BILL STANFORD	CHNL	-37.63	2-19	-	-37.63	81	-37.63	81	81
20S 32E 24 333	G. H. BINGHAM	ALVM	-37.69	2-19	-2.01	-35.68	76	-37.83	71	68,71-76,81
20S 32E 27 323	T. BINGHAM	ALVM	-15.33	2-19	-14.39	-0.94	76	-15.33	81	68,76,81
20S 32E 36 223	BILL SMITH	ALVM	-45.82	2-19	-4.56	-41.26	76	-45.82	81	68,71,76,81
20S 33E 05 343	PAN AMERICAN PET. CO.	SNRS	-277.52	2-19	-2.69	-274.83	76	-283.61	68	68,71,76,81
20S 33E 20 222	UNKNOWN	ALVM	-35.00	2-19	+1.14	-35.00	81	-37.01	68	68,71-76,81
20S 34E 04 444	MARK SMITH	CHNL	-126.87	2-18	+3.03	-126.87	81	-145.90	68	65,68,71-76,81
20S 34E 14 133	N. T. ROBERTS	CHNL	-155.36B	2-26	-0.31	-152.00	71	-155.03	76	68,71-76,81
20S 34E 17 334	MARK SMITH	CHNL	-130.39	2-19	+1.78	-128.70	68	-137.17	76	65,68,71-76,81
20S 34E 22 222	D.C. BERRY	CHNL	-166.13B	2-26	-	-166.70	68	-166.70	68	65-66,68,71-72,81
20S 34E 34 434	D.C. BERRY	ALVM	-83.68	2-18	+1.26	-83.68	81	-84.94	76	72,76,81
20S 35E 01 222	H.S. RECORD	ALVM	-24.04	2-17	-1.60	-20.88	77	-27.17	74	53,57-77,81
20S 35E 04 221	V. KLEIN	OGLL	-33.44	2-17	-0.61	-32.83	76	-33.63	71	61,66,71,76,81
20S 35E 05 314	MRS. V. LINAM KLEIN	OGLL	-53.40	2-17	+0.16	-53.40	81	-53.87	66	61,66,71,76,81
20S 35E 07 444	SIMS RANCH	OGLL	-32.02	2-26	-2.07	-29.95	76	-40.74	66	61,66,68,71,76,81
20S 35E 12 212	G. P. SIMS	ALVM	-49.10	2-26	-	-49.10	81	-49.10	81	81
20S 35E 12 222	SIMS RANCH	ALVM	-40.56	2-26	+2.52	-40.56	81	-43.08	76	76,81
20S 35E 31 123	LPD SIMS	OGLL	-64.03	2-18	+0.30	-64.03	81	-65.45	71	54,61,66,68,71,76,81
20S 35E 33 434	LPD SIMS	OGLL	-89.88	2-18	+0.24	-89.88	81	-96.13	66	54,61,66,68,71,76,81
20S 35E 35 334	SIMS RANCH	OGLL	-81.48	2-18	-0.65	-80.83	76	-83.54	71	61,66,68,71,76,81
20S 36E 02 241	MORROW	OGLL	-27.10	2-13	-	-27.10	81	-27.10	81	81

A well being pumped
B well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
20S 36E 03 331	V. KLEIN	ALVM	-35.78	2-13	-3.60	-32.18	76	-38.24	61	61,66,68,71,76,81
20S 36E 05 132	V. KLEIN	OGLL	-28.58	2-17	-3.04	-25.54	76	-32.79	61	53,61,66,68,71,76,81
20S 36E 06 142	UNKNOWN	ALVM	-30.45	2-17	-2.42	-28.03	76	-32.95	66	66,71,76,81
20S 36E 08 111	B. F. HUGHES	ALVM	-31.19	2-17	+1.38	-31.19	81	-34.53	71	61,66,68,71,76,81
20S 36E 09 134	V. KLEIN	ALVM	-25.06	2-13	-4.33	-20.73	76	-28.56	61	61,76,81
20S 36E 10 321	V. KLEIN	ALVM	-30.34	2-13	-0.59	-29.75	76	-30.34	81	61,66,71,76,81
20S 36E 11 422	V. KLEIN	ALVM	-31.23	2-13	+0.51	-31.23	81	-33.51	6R	6R,71,76,81
20S 36E 14 422	COOPER BROS.	ALVM	-27.59	2-13	-	-27.59	81	-27.59	81	81
20S 36E 15 242	V. KLEIN	ALVM	-29.86	2-13	+2.78	-29.86	81	-40.56	66	61,66,6R,71,76,81
20S 36E 17 111	L. V. AND G. P. SIMS	ALVM	-31.32	2-26	+0.63	-31.32	81	-35.47	66	61,66,6R,71,76,81
20S 36E 19 431	L. V. SIMS	ALVM	-87.31	2-18	+3.81	-87.31	81	-119.25	61	61,66,6R,76,81
20S 36E 22 311	UNKNOWN	ALVM	-88.85	2-13	-0.48	-88.37	76	-88.85	81	76,81
20S 36E 26 243	AMERADA	CHNL	-95.80	2-13	-	-79.46	71	-106.50	66	61,66,6R,71,76,81
20S 36E 32 113	LEO SIMS	CHNL	-166.46	2-18	+10.47	-166.46	81	-189.04	61	61,66,6R,71,76,81
20S 36E 36 134	ALASKA COPPER	CHNL	-99.03	2-13	-18.34	-76.79	71	-99.03	81	61,66,6R,71,76,81
20S 37E 01 224	BILLY WALKER	OGLL	-46.93	2-06	-0.01	-46.92	76	-47.94	66	61,66,71,76,81
20S 37E 03 341	W. R. WALKER	ALVM	-12.15	2-17	-0.24	-11.91	76	-19.34	54	54,61,66,68,71,76,81
20S 37E 04 111	UNKNOWN	ALVM	-29.28	2-11	-	-29.28	81	-29.28	81	81
20S 37E 04 111	UNKNOWN	ALVM	-29.61	2-11	-3.99	-25.62	76	-32.26	66	61,66,6R,71,76,81
20S 37E 04 221	NOLAN AND LANE	ALVM	-30.06	2-17	-6.04	-24.02	76	-30.46	66	54,61,66,68,71,76,81
20S 37E 05 134	MARATHON OIL CO.	ALVM	-28.11	2-17	-3.63	-24.48	76	-29.43	6R	6R,71,76,81
20S 37E 06 113	CAROL BYRD	ALVM	-22.94	2-17	+0.26	-22.94	81	-32.51	61	61,71,76,81
20S 37E 06 334	G. MATHEWS	ALVM	-26.06	2-12	-2.05	-24.01	76	-29.09	66	61,66,68,71,76,81
20S 37E 07 243	BERTHA BARBER	ALVM	-24.27	2-17	-1.60	-22.67	76	-25.45	61	61,66,71,76,81
20S 37E 09 112	W.H. LAUGHLIN	ALVM	-28.49	2-11	-4.08	-24.41	76	-37.12	41	41-50,66,71,76,81
20S 37E 09 331	PAUL BUCHANAN	ALVM	-12.81	2-11	-1.07	-11.74	76	-19.18	54	54,61,66,71,76,81
20S 37E 13 321	W. R. WALKER	ALVM	-79.67	2-10	-0.87	-74.39	54	-79.67	81	54,61,68,71,76,81
20S 37E 16 314	ORVILLE COOPER	ALVM	-16.34	2-11	-1.25	-13.16	53	-18.26	6R	53,68,71,76,81
20S 37E 17 132	MRS. R. SCARRY	ALVM	-26.34	2-17	-0.78	-25.56	76	-26.85	71	54,61,66,68,71,76,81
20S 37E 18 212	UNKNOWN	ALVM	-27.60	2-12	-0.80	-26.80	76	-28.53	71	67,71,76,81
20S 37E 20 431	DELLA THURLAND	ALVM	-22.56	2-12	-1.06	-21.50	76	-23.33	71	54,61,66,68,71,76,81
20S 37E 21 333	DELLA THURLAND	ALVM	-22.37	2-17	-1.34	-21.03	76	-23.54	71	61,71,76,81
20S 37E 28 244	DELLA THURLAND	ALVM	-36.15	2-11	-0.21	-35.94	76	-36.60	61	54,61,66,71,76,81
20S 37E 29 344	DELLA THURLAND	ALVM	-106.92	2-11	-26.08	-8.80	66	-106.92	81	66,68,71,76,81
20S 37E 35 414	THURLAND RANCH	ALVM	-53.02	2-10	+0.19	-53.02	81	-55.96	54	54,67-69,71,76,81
20S 38E 01 344	MILLARD DECK	OGLL	-46.33	2-03	-	-46.33	81	-46.33	81	81
20S 38E 02 141	EARL KORNEGAY	ALVM	-31.13	2-04	+9.65	-31.13	81	-42.86	71	71,76,81
20S 38E 02 412	EARL KORNEGAY	ALVM	-26.40	1-04	+9.27	-26.40	81	-35.67	76	61,66,6R,71,76,81
20S 38E 03 221	FRANK J. GOODSON	OGLL	-29.95	2-04	+8.65	-29.95	81	-38.60	76	66,71,76,81
20S 38E 05 214	MCNEILL RANCH	OGLL	-46.03	2-06	+1.02	-46.03	81	-48.75	6R	61,66,6R,72,76,81
20S 38E 05 313	F. M. PAYTON	OGLL	-52.91	2-06	+1.42	-52.91	81	-61.64	66	61,66,6R,71,76,81
20S 38E 07 224	BILL WALKER	OGLL	-60.34	2-06	+0.37	-60.34	81	-70.11	71	57,71,76,81
20S 38E 07 324	UNKNOWN	OGLL	-73.20	2-06	+1.56	-73.20	81	-76.68	6R	66,68,71,76,81
20S 38E 07 334	TEXACO	OGLL	-89.57	2-06	+0.93	-87.31	71	-90.50	76	71,76,81
20S 38E 08 232	CITY OF EUNICE	OGLL	-57.51	2-06	+1.32	-54.33	71	-73.80	61	61,66,6R,71,76,81
20S 38E 11 414	AL HOUSE	OGLL	-37.84	2-03	-	-37.84	81	-37.84	81	81
20S 38E 11 423	B.A. HOUSE	OGLL	-36.01	4-03	-	-36.01	81	-36.01	81	53,81
20S 38E 12 422	UNKNOWN	OGLL	-44.88	2-03	-	-44.88	81	-46.44	6R	53,67-6R,81
20S 38E 12 442	LONE DRILLING CO.	ALVM	-50.85	2-04	-1.19	-49.66	76	-52.15	71	71,76,81
20S 38E 13 141	D. F. HOUSE	ALVM	-38.97B	2-04	-3.02	-31.08	61	-35.95	76	61,66,6R,71,76,81
20S 38E 16 232	EARL KORNEGAY	OGLL	-74.81	2-10	-3.54	-65.35	61	-74.81	81	61,66,71,76,81
20S 38E 17 141	EARL KORNEGAY	ALVM	-74.83	2-06	-0.75	-74.08	76	-74.83	81	67-68,76-77,81
20S 38E 17 334	EARL KORNEGAY	OGLL	-81.16A	2-06	-1.84	-71.36	61	-79.32	76	54,61,66,71,76,81
20S 38E 34 233	E. C. HILL	ALVM	-78.34	2-10	+0.65	-78.34	81	-79.69	66	61,66,71,76,81
20S 39E 06 133	PAN AMERICAN	OGLL	-71.49	2-09	-2.20	-68.25	66	-71.49	81	66,68,71,76,81
20S 39E 07 134	EARL KORNEGAY	OGLL	-58.88A	2-04	-4.82	-54.06	76	-64.92	61	61,66,6R,71,76,81
20S 39E 08 132	SHERMAN HINNARD	OGLL	-50.66	2-04	-1.75	-44.19	61	-50.66	81	61,66,6R,71,76,81
20S 39E 19 122	EARL KORNEGAY	OGLL	-54.26	1-06	-10.60	-43.66	76	-57.58	67	64-72,74-81
20S 39E 19 421	EARL KORNEGAY	OGLL	-54.16	1-06	+0.22	-54.16	81	-57.74	61	61,66,71,76,81
20S 39E 20 123	EARL KORNEGAY	OGLL	-27.37C	2-04	-	-	-	-	-	66,68,71,76,81
21S 32E 06 111	I. D. ALLRED	ALVM	-46.21	3-10	-2.55	-43.66	76	-46.21	81	65,68,71,76,81
21S 32E 06 111	I. D. ALLRED	ALVM	-45.87	3-10	-2.69	-43.18	76	-45.87	81	71,76,81
21S 33E 02 242	D. C. BERRY	ALVM	-103.51	3-11	-	-103.51	81	-103.51	81	65,76,81
21S 33E 02 422	MIDLAND NATL. BANK	ALVM	-85.25	3-11	-	-83.00	6R	-85.32	71	6R,71,76,81
21S 33E 02 422	DAN BERRY	ALVM	-81.96	3-11	-	-81.96	81	-81.96	81	65,68,71-76,81
21S 33E 11 111	DAN BERRY	ALVM	-143.61	3-12	-	-143.61	81	-145.00	6R	65,68,71,76,81
21S 33E 11 343	MERCHANT LIVESTOCK CO.	ALVM	-135.60	3-11	-	-135.60	81	-135.60	81	81
21S 33E 18 114	D. C. BERRY	ALVM	-141.56	3-10	-	-141.56	81	-141.56	81	54,65,72,76,81
21S 33E 18 123	DAN BERRY	ALVM	-115.65	3-10	-	-115.65	81	-117.50	71	65,68,71-76,81
21S 33E 25 423	MERCHANT LIVESTOCK CO.	ALVM	-56.03	3-10	-	-56.03	81	-58.95	71	6R,71-76,81
21S 33E 28 124	MERCHANT LIVESTOCK CO.	CHNL	-184.67	3-10	-	-178.62	71	-184.67	81	71-76,81
21S 34E 01 241	MERCHANT LIVESTOCK CO.	OGLL	-68.26	3-05	-	-68.26	81	-68.92	71	6R,71,76,81
21S 34E 04 311	MERCHANT LIVESTOCK CO.	CHNL	-86.35	3-11	-	-86.35	81	-86.35	81	81
21S 34E 25 131	WILSON OIL CO.	OGLL	-98.80	3-05	-	-98.80	81	-100.27	6R	65,68,71,76,81
21S 34E 33 233	MERCHANT LIVESTOCK CO.	OGLL	-63.06	3-05	-	-63.06	81	-63.06	81	6R,71,76,81
21S 35E 01 172	AMERADA OIL CO.	CHNL	-135.05	3-05	-	-105.29	71	-151.35	6R	6R,71,76,81
21S 35E 14 111	MERCHANT LIVESTOCK CO.	CHNL	-158.22	3-05	-	-154.01	6R	-158.72	81	55,68,71,76,81
21S 35E 24 241	MERCHANT LIVESTOCK CO.	CHNL	-202.70	3-04	-	-202.70	81	-204.07	6R	6R,71,76,81
21S 35E 27 373	SAN SIMON RANCH	OGLL	-15.58C	3-05	-	-21.83	71	-21.92	6R	5R,65,6R,71,76,81
21S 35E 30 411	MERCHANT LIVESTOCK CO.	OGLL	-30.68	3-05	-	-30.68	81	-37.97	71	6R,71,76,81

A well being pumped
B well pumped recently
C nearby well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
21S 36E 02 341	UNKNOWN	OGLL	-130.32	3-05	-	-130.32	81	-134.31	68	61,66,68,70,81
21S 36E 09 272	W. L. VAN NOY	CHNL	-180.55	3-05	-	-180.55	81	-180.55	81	81
21S 36E 13 412	JOE E. SIMS	OGLL	-149.29	3-09	-	-149.29	81	-149.29	81	67,70,81
21S 36E 14 331	CONTINENTAL OIL CO.	OGLL	-158.83	3-05	+6.72	-158.57	68	-165.55	76	68,70,76,81
21S 36E 16 224	W. L. VAN NOY	OGLL	-174.76	3-04	-	-174.76	81	-174.76	81	81
21S 36F 17 433	PHILLIPS PET. CO.	OGLL	-242.48	3-04	-	-242.48	81	-243.27	68	68,70,81
21S 36F 18 241	CONTINENTAL OIL CO.	OGLL	-232.22	3-04	-0.38	-230.87	68	-232.22	81	65,68,70,76,81
21S 36F 26 424	HUMBLE OIL CO.	OGLL	-150.99	3-03	-0.14	-150.70	68	-150.99	81	66,68,70,76,81
21S 36F 28 421	ROBINSON	OGLL	-186.69	3-04	+0.03	-186.69	81	-186.72	76	65,68,70,76,81
21S 36F 29 231	HUMBLE OIL CO.	CHNL	-247.34	3-04	+0.51	-247.34	81	-247.85	76	70,76,81
21S 37F 03 312	TEXACO	ALVM	-19.43	2-26	-1.63	-17.80	76	-21.27	68	68,70,76,81
21S 37F 03 433	CONTINENTAL CARBON	ALVM	-18.87	2-26	-3.68	-15.19	76	-21.59	68	68,70,76,81
21S 37F 04 133	UNKNOWN	ALVM	-23.23	2-26	-0.13	-21.10	76	-24.85	66	61,66,68,70,76,81
21S 37F 04 412	UNKNOWN	ALVM	-23.04	2-26	+0.13	-21.04	81	-25.75	66	61,66,68,70,76,81
21S 37F 05 111	E. H. RANCH	ALVM	-31.93	2-26	0.00	-31.93	76	-31.93	76	76,81
21S 37F 06 424	UNKNOWN	ALVM	-92.14	2-26	-	-92.14	81	-92.72	68	68,70,81
21S 37F 07 112	MILLARD DECK	ALVM	-81.30	2-26	0.00	-81.30	76	-81.58	68	67-68,70,76,81
21S 37F 09 241	DR. SAM W. GRAVES	ALVM	-59.20	2-26	+2.49	-59.20	81	-61.69	76	68,70,76,81
21S 37F 10 241	UNKNOWN	ALVM	-18.29	2-26	-1.49	-16.80	76	-18.79	81	66,70,76,81
21S 37F 10 422	HUMBLE OIL CO.	ALVM	-24.43	2-26	-	-24.43	81	-30.35	66	66,70,81
21S 37F 13 134	W. O. STEPHENS	ALVM	-50.04	2-26	-	-50.04	81	-50.04	81	65,68,70,81
21S 37F 14 124	J. M. OWENS	ALVM	-26.03	2-27	-	-26.03	81	-26.03	81	53,65,68,70,81
21S 37F 14 433	UNKNOWN	ALVM	-57.12	2-27	-	-57.12	81	-57.12	81	81
21S 37F 15 334	UNKNOWN	ALVM	-48.06	2-27	+0.18	-48.06	81	-48.47	68	65,68,70,76,81
21S 37F 16 222	MILLARD DECK	ALVM	-62.69	3-04	-	-62.69	81	-62.69	81	81
21S 37F 17 144	DR. SAM W. GRAVES	ALVM	-71.77	2-27	+0.02	-71.77	81	-72.15	68	65,68,70,76,81
21S 37F 18 442	JOE E. SIMS	ALVM	-98.82	2-27	-	-98.82	81	-99.70	54	54,68,70,81
21S 37F 20 244	DR. SAM W. GRAVES	ALVM	-99.40	2-27	+0.26	-99.40	81	-100.34	68	65,68,70,76,81
21S 37F 21 244	N. L. HARDY	ALVM	-56.50	2-27	+0.70	-56.50	81	-57.20	76	68,70,76,81
21S 37F 22 211	O. R. EUBANKS	ALVM	-37.02	2-27	+1.70	-37.02	81	-38.72	76	55,65,70,76,81
21S 37F 22 211	O. R. EUBANKS	ALVM	-37.33	2-27	+0.87	-37.33	81	-41.45	68	65,68,70,76,81
21S 37F 22 333	DR. SAM W. GRAVES	ALVM	-45.54	2-27	+2.37	-45.54	81	-47.91	76	65,68,70,76,81
21S 37F 22 442	DR. SAM W. GRAVES	ALVM	-62.80	2-27	+2.04	-62.80	81	-64.56	68	53,65,68,70,76,81
21S 37F 23 233	SKELLY OIL CO.	ALVM	-49.58	2-27	+0.69	-49.58	81	-50.48	66	53,65-66,70,76,81
21S 37F 25 313	M. M. OWEN	ALVM	-48.31	3-07	+2.63	-48.31	81	-50.94	76	65,68,70,76,81
21S 37F 27 232	SKELLY OIL CO.	ALVM	-55.91	3-07	+4.38	-55.91	81	-73.43	66	65-66,70,76,81
21S 37F 28 243	SKELLY OIL CO.	ALVM	-50.05	3-03	+0.93	-50.05	81	-65.21	66	65-66,70,76,81
21S 37F 29 424	A. P. MITCHELL	ALVM	-93.09	3-03	+0.73	-93.09	81	-93.82	76	65,70,76,81
21S 37F 30 114	A. P. MITCHELL	ALVM	-108.92	3-03	+2.85	-108.92	81	-111.77	76	65,76,81
21S 37F 30 414	UNKNOWN	ALVM	-100.51	3-03	+0.17	-100.51	81	-101.63	54	54,66,68,70,76,81
21S 37F 31 133	W. M. SNYDER	ALVM	-104.62	3-03	+0.33	-104.62	81	-104.95	76	54,65,68,70,76,81
21S 37F 32 222	PAT SIMS	ALVM	-103.07	3-03	-5.18	-97.89	76	-103.07	81	65,76,81
21S 37F 35 231	CONTINENTAL OIL CO.	ALVM	-51.25	3-03	+3.86	-51.25	81	-55.11	76	65,70,76,81
21S 37F 35 321	J. M. OWEN	CHNL	-40.14	3-03	-1.76	-38.58	76	-40.14	81	65,76,81
21S 37F 36 311	GRADY ROBERTS	ALVM	-60.08	3-07	-	-60.08	81	-66.15	68	66,68,70,81
21S 38F 04 231	MC NETL	ALVM	-82.69	3-03	-	-82.69	81	-82.69	81	81
21S 38F 04 231	MC NETL	ALVM	-75.770	3-03	-	-	-	-	-	81
21S 38F 06 131	UNKNOWN	OGLL	-76.36	2-26	-0.26	-76.10	76	-76.36	81	70,73,76,81
21S 38E 06 133	FULLERTON OIL CO.	OGLL	-81.23	2-26	-	-81.23	81	-81.23	81	53,81
21S 38F 19 242	WAYNE & W. O. STEPHENS	ALVM	-38.22	3-07	-0.25	-37.97	76	-38.22	81	65,68,70,76,81
21S 38E 20 414	PAUL WALLACH	ALVM	-27.33	3-07	+1.34	-27.33	81	-34.74	68	67-68,70,76,81
21S 38F 28 131	UNKNOWN	ALVM	-36.46	3-07	-1.85	-34.61	76	-36.55	68	68,70,76,81
21S 38E 33 111	UNKNOWN	OGLL	-43.39	3-07	-10.04	-33.35	76	-43.39	81	70,76,81
22S 32E 14 323	JAMES RANCH	SNRS	-374.48B	3-10	-	-	-	-	-	72,76,81
22S 33E 13 231	MERCHANT LIVESTOCK CO.	CHNL	-389.83	3-10	-	-389.83	81	-389.83	81	68,70,72,76,81
22S 34E 08 223	MERCHANT LIVESTOCK CO.	ALVM	-30.73	3-18	-	-30.73	81	-30.73	81	68,70,76,81
22S 34E 11 244	MERCHANT LIVESTOCK CO.	ALVM	-7.37	3-18	-	-7.37	81	-7.37	81	67-68,70,76,81
22S 34E 23 231	MERCHANT LIVESTOCK CO.	ALVM	-23.37	3-18	-	-23.37	81	-23.37	81	68,71,76,81
22S 35E 06 441	MERCHANT LIVESTOCK CO.	ALVM	-47.89	3-18	-	-47.89	81	-47.99	81	68,70,76,81
22S 35E 14 122	MERCHANT LIVESTOCK CO.	OGLL	-77.44	3-18	-	-77.44	81	-77.44	81	68,70,76,81
22S 35E 14 122	MERCHANT LIVESTOCK CO.	OGLL	-77.30	3-18	-	-77.30	81	-77.30	81	65,68,70,76,81
22S 36E 06 321	W.T. TIVIS JR.	OGLL	-180.43	3-09	-0.03	-180.40	76	-180.43	81	76,81
22S 36E 06 412	CHILDRENS BAPTIST HOME	OGLL	-171.03	3-09	+0.22	-171.03	81	-171.25	76	68,70,76,81
22S 36E 12 311	UNKNOWN	ALVM	-121.15	3-12	-1.98	-119.17	76	-121.15	81	66,70,76,81
22S 36E 16 211	UNKNOWN	OGLL	-173.19	3-12	+0.07	-173.19	81	-173.26	76	76,81
22S 36E 25 434	E. F. KING	OGLL	-117.25	3-12	-0.21	-117.04	76	-117.25	81	65,76,81
22S 36E 27 444	E. F. KING	OGLL	-174.53	3-12	-10.29	-164.24	76	-174.53	81	70,76,81
22S 36E 33 232	PHILLIPS PET. CO.	SNRS	-413.44	3-12	-35.13	-378.31	76	-413.44	81	68,70,73,76,81
22S 36E 35 313	E. F. KING	OGLL	-181.00	3-12	-0.03	-180.97	76	-181.00	81	53,65,68,70,76,81
22S 37E 01 443	GEORGE SIMS	ALVM	-53.81	3-17	-	-53.81	81	-53.81	81	65,68,70,76,81
22S 37E 01 444	GEORGE SIMS	ALVM	-55.29	3-17	-0.71	-54.58	76	-55.29	81	65,70,76,81
22S 37E 02 242	HUMBLE OIL CO.	ALVM	-58.79	3-17	+2.60	-58.79	81	-61.39	76	70,76,81
22S 37E 04 223	CITY OF EUNICE CEMETERY	OGLL	-101.36	3-17	+1.88	-101.36	81	-103.24	76	65,68,70,76,81
22S 37E 05 212	GAYLORD BAKER	ALVM	-99.16	3-17	+0.23	-99.16	81	-99.39	76	65,70,76,81
22S 37E 05 432	MARATHON OIL CO.	OGLL	-77.65	3-17	+1.80	-77.65	81	-79.45	76	70,76,81
22S 37E 08 424	SHELL OIL CO.	OGLL	-71.69	3-17	+0.16	-71.69	81	-75.80	66	66,70,76,81
22S 37E 09 212	MAGNOLIA	OGLL	-76.20	3-17	+0.28	-76.20	81	-76.48	76	65,70,76,81
22S 37E 10 321	L. W. FRISTOE	ALVM	-66.05	3-17	-	-66.05	81	-66.05	81	81
22S 37E 11 224	MARATHON OIL CO.	ALVM	-56.94	3-17	-0.33	-56.27	68	-56.94	81	68,70,76,81
22S 37E 11 444	RAY A. PIERCE	ALVM	-58.76	3-17	-0.80	-57.96	76	-58.76	81	53,65,70,76,81

B well pumped recently
D nearby well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	'81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
22S 37E 14 242	LPG SIMS	ALVM	-60.76	3-16	-	-60.76	81	-60.76	81	65,81
22S 37E 14 442	OLLIE I. ROYD	ALVM	-55.26	3-16	-0.35	-54.44	68	-55.26	81	65,68,70,76,81
22S 37E 15 333	JOE SIMS	OGLL	-86.89	3-18	-1.39	-85.50	76	-95.93	66	66,76,81
22S 37E 16 413	MILLARD DECK	OGLL	-83.13	3-18	-	-83.13	81	-89.15	68	66,68,70,76,81
22S 37E 17 414	E. F. KING	ALVM	-71.86	3-18	-0.18	-71.43	68	-71.86	81	65,68,70,76,81
22S 37E 17 434	E. F. KING	ALVM	-66.01	3-18	-0.34	-65.67	76	-66.01	81	65,70,76,81
22S 37E 21 123	MILLARD DECK	ALVM	-69.41	3-19	-	-69.41	81	-69.41	81	78,81
22S 37E 22 313	J. L. HOOPER	ALVM	-72.52	3-19	-	-72.52	81	-78.50	66	66,81
22S 37E 23 423	OLLIE I. ROYD	ALVM	-54.29	3-16	-0.05	-53.86	68	-54.29	81	65,68,76,81
22S 37E 24 311	GEORGE SIMS	ALVM	-60.08	3-16	-	-59.34	55	-60.08	81	55,65,70,81
22S 37E 25 122	A. M. DRINKARD	ALVM	-49.27	3-16	-0.54	-48.73	76	-50.45	71	65,68,71,76,81
22S 37E 25 331	MARSHAL DRINKARD	ALVM	-49.26	3-16	-0.82	-48.44	76	-49.26	81	53,68,70,76,81
22S 37E 27 213	A. F. JOHNSTON	ALVM	-53.81	3-19	-1.05	-52.09	68	-53.81	81	68,70,76,81
22S 37E 27 343	AMADARKO	ALVM	-50.92	3-19	+0.92	-50.92	81	-51.84	76	76,81
22S 37E 28 323	J.C. FLOWER DRG. CO.	ALVM	-69.28	3-18	-0.08	-66.34	55	-69.28	81	53,55,65,68,70,76,81
22S 37E 33 223	AMADARKO	ALVM	-74.70	3-18	+0.80	-74.70	81	-75.50	76	65,68,70,76,81
22S 37E 34 411	R. D. SIMS	ALVM	-51.01	3-19	+0.86	-51.01	81	-53.57	68	65,68,70,76,81
22S 37E 35 142	H. D. SIMS	ALVM	-57.43	3-19	+1.29	-57.43	81	-58.72	76	65,68,70,76,81
22S 37E 35 232	R. D. SIMS	ALVM	-48.90	3-19	-	-48.90	81	-48.90	81	81
22S 37E 36 134	TOMMY LINEBERRY	ALVM	-30.01C	3-16	-0.91	-29.10	76	-29.10	76	70,76,81
22S 37E 36 134	TOM LINEBERRY	ALVM	-28.15	3-16	-0.86	-27.29	76	-29.77	66	66,68,70,76,81
22S 38E 07 311	GEORGE SIMS	ALVM	-50.99	3-16	-	-50.99	81	-50.99	81	65,81
22S 38E 19 222	TEXAS CO.	SNRS	-128.95	3-16	+3.91	-128.95	81	-132.88	76	53,65,68,70,76,81
22S 38E 19 224	GEORGE SIMS	SNRS	-137.12	3-16	+4.41	-137.12	81	-141.53	76	65,68,71,76,81
22S 38E 19 343	ERNEST HANSEN	CHNL	-94.33	3-16	+3.57	-94.33	81	-97.90	76	67-68,70,76,81
22S 38E 20 134	AMANDA E. SIMS	SNRS	-147.25	3-16	+4.98	-147.25	81	-152.23	76	65,73,76,81
23S 32E 03 311	U. S. POTASH	CHNL	-197.34	3-26	-	-197.34	81	-213.85	77	72,77,81
23S 32E 03 311	C. H. JAMES	SNRS	-438.34R	3-26	-	-	-	-	-	76,81
23S 33E 12 312	MERCHANT RANCH	SNRS	-330.92R	3-27	-	-326.70	71	-326.70	71	65,68,71-76,81
23S 33E 26 424	BRINNINSTOOL RANCH	CHNL	-136.40C	3-27	-	-	-	-	-	81
23S 34E 06 433	CONOCO	SNRS	-399.44R	3-27	-	-	-	-	-	68,81
23S 34E 16 333	LAWRENCE MERCHANT	CHNL	-345.40	3-30	-	-344.05	71	-345.40	81	71,76,81
23S 34E 22 421	ESTORIL PRODUCING CO.	SNPS	-284.11	3-30	-	-284.11	81	-284.11	81	81
23S 34E 23 423	LAWRENCE MERCHANT	SNRS	-234.91	3-30	-	-234.91	81	-235.23	71	65,68,71,76,81
23S 34E 32 442	SHELL OIL CO.	SNPS	-210.13	3-27	+2.26	-210.13	81	-212.39	76	71,76,81
23S 35E 06 331	LAWRENCE MERCHANT	ALVM	-137.94	3-27	+0.76	-137.94	81	-139.87	71	65,68,71,76,81
23S 35E 11 223	HUGH WARD	CHNL	-99.25	3-30	-	-99.25	81	-99.25	81	68,70,81
23S 35E 15 423	HUGH WARD	ALVM	-42.72	3-30	+1.17	-42.72	81	-43.89	76	70,76,81
23S 35E 28 111	L. R. H. CATTLE CO.	ALVM	-233.10	3-30	-1.53	-231.57	76	-233.10	81	67-68,70,76,81
23S 35E 29 334	LAWRENCE MERCHANT	CHNL	-328.00	3-31	-	-328.00	81	-328.00	81	68,70,76,81
23S 35E 36 242	JOHNNY POST	CHNL	-204.14R	3-31	-	-	-	-	-	65,68,71,76,81
23S 36E 04 424	J. E. WATKINS	OGLL	-163.33	3-31	-0.23	-163.10	76	-163.33	81	65,68,71,76,81
23S 36E 15 441	J. E. WATKINS	OGLL	-144.64	3-31	-	-144.64	81	-144.64	81	81
23S 36E 16 343	U. R. CATTLE CO.	SNRS	-381.27	3-31	-	-381.27	81	-381.27	81	81
23S 36E 26 333	MRS. FRANCES RANDOLPH	OGLL	-141.41	3-25	-0.65	-140.77	68	-141.41	81	65,68,70,76,81
23S 36E 31 214	MRS. FRANCES RANDOLPH	OGLL	-173.50	3-25	+0.33	-173.50	81	-173.83	76	71,76,81
23S 36E 35 211	MRS. FRANCES RANDOLPH	OGLL	-124.07	3-25	-0.33	-123.30	71	-124.07	81	53,65,71,76,81
23S 36E 36 314	EL PASO NAT. GAS CO.	OGLL	-133.04	3-25	-3.24	-129.80	76	-133.04	81	65,70,76,81
23S 37E 02 133	H. D. SIMS	OGLL	-64.14	3-19	+5.11	-64.14	81	-69.45	76	76,81
23S 37E 02 422	GEORGE SIMS	ALVM	-64.02	3-19	-0.32	-63.70	68	-64.02	81	65,68,70,76,81
23S 37E 02 422	GEORGE SIMS	ALVM	-64.04	3-19	-0.37	-63.67	76	-64.04	81	55,70,76,81
23S 37E 03 323	R. R. SIMS	CHNL	-107.85	3-19	-	-107.85	81	-107.85	81	81
23S 37E 03 342	R. R. SIMS	ALVM	-70.39	3-19	-0.50	-69.89	76	-70.39	81	65,68,70,76,81
23S 37E 03 421	H. D. SIMS	ALVM	-65.52	3-19	+1.53	-65.52	81	-67.05	76	53,65,68,70,76,81
23S 37E 04 114	E. F. KING	ALVM	-87.86	3-19	-0.39	-87.16	68	-87.86	81	65,68,71,76,81
23S 37E 04 211	H. D. SIMS	ALVM	-78.82	3-19	+0.31	-78.82	81	-79.15	76	76,78,81
23S 37E 05 313	GETTY OIL CO.	ALVM	-94.74	3-24	-	-94.74	81	-94.74	81	81
23S 37E 05 442	JAMES WEIR	ALVM	-85.28	3-24	-0.23	-85.05	76	-88.08	68	68,70,76,81
23S 37E 06 144	E. F. KING	ALVM	-102.42	3-24	-0.40	-102.02	76	-102.58	68	53,65,68,71,76,81
23S 37E 10 421	TOMMY LINEBERRY	ALVM	-66.35	3-24	-0.38	-65.97	76	-66.35	81	66,68,71,76,81
23S 37E 11 111	G. M. AND R. R. SIMS	ALVM	-68.99	3-24	-0.40	-68.37	68	-68.99	81	65,68,71,76,81
23S 37E 16 414	F. M. A. DRILLING CO.	OGLL	-103.45	3-25	-	-102.07	68	-103.45	81	67-70,81
23S 37E 20 122	JIMMIE WEIR	ALVM	-100.36	3-25	-	-100.27	68	-100.36	81	65,68,70,81
23S 37E 20 333	BERT STEELER	ALVM	-106.39	3-25	-	-106.39	81	-121.63	68	58,71,81
23S 37E 28 133	JIMMIE WEIR	ALVM	-117.52	3-25	+0.39	-117.52	81	-118.36	68	68,70,76,81
23S 37E 31 442	EL PASO NAT. GAS CO.	ALVM	-101.50	3-25	+0.40	-101.50	81	-102.70	68	65,68,70,76,81
23S 37E 32 122	EDITH FANNING	ALVM	-97.33	3-25	-	-97.33	81	-97.33	81	65,70,81
23S 37E 33 323	EDITH FANNING	ALVM	-87.16	3-25	+0.29	-87.16	81	-89.36	68	65,68,70,76,81
23S 37E 34 221	CARTER FOUNDATION	ALVM	-80.38	3-25	+0.49	-80.38	81	-81.24	68	68,70,76,78,81
23S 38E 07 344	TOM LINEBERRY	CHNL	-173.08	3-24	+7.72	-173.08	81	-180.80	76	71,76,81
23S 38E 08 214	TOM LINEBERRY	CHNL	-217.64R	3-24	-	-187.98	68	-187.98	68	53,68,70,81
24S 32E 10 344	CHARLIE JAMES	ALVM	-19.93	3-20	+11.87	-19.93	81	-33.64	50	50,55,76,81
24S 33E 10 131	CARL JOHNSON	OGLL	-20.02	3-20	+0.37	-20.02	81	-22.70	73	53,73,76,81
24S 33E 24 444	MADERA	OGLL	-16.03	3-19	-2.46	-13.57	76	-16.03	81	53,76,81
24S 33E 33 232	CARL JOHNSON	OGLL	-92.81	3-20	-0.76	-92.05	76	-93.15	54	54,76,81
24S 34E 07 272	ROBERT MADERA	OGLL	-82.95	3-19	+2.89	-82.95	81	-85.84	76	70,76,81
24S 34E 35 124	ROBERT MADERA	OGLL	-217.71	3-20	+1.35	-217.71	81	-223.90	53	53,71,76,81
24S 35E 10 133	JOHNNY POST	ALVM	-162.96	3-19	-6.61	-156.35	76	-162.96	81	65,68,70,76,81
24S 35E 24 424	JOHNNY POST	CHNL	-131.16R	3-19	-3.94	-127.22	76	-127.22	76	65,68,70,76,81
24S 35E 30 342	ROBERT MADERA	CHNL	-139.60	3-20	-0.42	-139.18	76	-139.60	81	70,76,81

B well pumped recently
C nearby well being pumped

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
24S 35E 34 141	MRS. BRYANT	SNRS	-147.47	3-20	-0.99	-146.48	76	-147.47	81	68,70,76,81
24S 36E 03 114	W. P. WHITTEN	SNRS	-179.47	3-19	-1.31	-178.16	76	-181.17	53	53,65,70,76,81
24S 36E 03 333	W. P. WHITTEN	SNRS	-177.57	3-19	-0.99	-173.80	68	-182.10	53	53,65,68,70,76,81
24S 36E 09 133	W. P. WHITTEN	SNRS	-189.50	3-19	+0.34	-189.50	81	-189.84	76	65,68,70,76,81
24S 36E 13 443	MRS. FRANCES RANDOLPH	OGLL	-132.36	3-19	+0.83	-132.36	81	-134.38	68	68,70,76,81
24S 36E 15 221	WORLD WIDE ENERGY, INC.	OGLL	-178.83	3-19	-0.64	-176.23	68	-178.83	81	53,65,68,70,76,81
24S 36E 23 222	CITY OF JAL	OGLL	-146.63	3-19	+0.03	-146.10	68	-146.66	76	68,70,76,81
24S 37E 01 322	EVANS ESTATE	ALVM	-16.94	3-19	-0.16	-16.78	76	-16.94	81	76,81
24S 37E 01 324	EVANS ESTATE	ALVM	-10.89	3-19	+6.03	-10.89	81	-16.92	76	65,68,70,76,81
24S 37E 01 374	EVANS ESTATE	ALVM	-16.91	3-19	-0.04	-16.87	76	-16.91	81	65,70,76,81
24S 37E 03 312	CLYDE COOPER	ALVM	-89.35	3-17	+0.20	-89.35	81	-90.04	68	65,68,70,76,81
24S 37E 05 444	J. D. YOUNG	ALVM	-92.78	3-17	+0.57	-92.78	81	-94.18	68	68,70,76,81
24S 37E 07 431	FOWLER HAIR	ALVM	-119.09	3-18	+0.14	-119.09	81	-119.91	53	53,70,76,81
24S 37E 08 113	HALIBURTON BAKER	ALVM	-124.09	3-17	+0.71	-124.09	81	-125.31	68	65,68,70,76,81
24S 37E 08 241	TEX. PAC COAL & OIL CO.	ALVM	-94.90	3-17	+0.44	-94.90	81	-96.00	68	68,70,76,81
24S 37E 09 444	CLYDE COOPER	ALVM	-109.13	3-17	+0.38	-109.13	81	-109.51	76	65,68,70,76,81
24S 37E 10 143	CLYDE COOPER	ALVM	-83.47	3-17	+0.55	-83.47	81	-84.02	76	68,70,76,81
24S 37E 11 344	CLYDE COOPER	ALVM	-64.35	3-18	-	-64.35	81	-65.13	53	53,65,68,70,76,81
24S 37E 12 144	J. I. SMITH	ALVM	-26.13	3-18	+0.52	-26.13	81	-26.65	76	65,68,70,76,81
24S 37E 13 434	CLYDE COOPER	ALVM	-43.43	3-18	-0.59	-42.84	76	-43.43	81	65,70,76,81
24S 37E 13 434	CLYDE COOPER	ALVM	-44.17D	3-18	-	-41.33	68	-41.33	68	65,68,70,81
24S 37E 16 423	HUMBLE OIL CO.	ALVM	-85.86	3-17	+0.05	-85.86	81	-86.14	68	65,68,70,76,81
24S 37E 18 433	FRED COOPER	ALVM	-125.56	3-18	+0.42	-125.56	81	-125.98	76	68,70,76,81
24S 37E 20 333	J. T. CRAWFORD	ALVM	-121.12	3-18	+0.43	-121.12	81	-121.55	76	68,70,76,81
24S 37E 21 242	BUCKLES	ALVM	-83.22	3-17	+0.58	-83.22	81	-83.83	72	65,72,76,81
24S 37E 21 413	SHELL	SNRS	-256.80	3-17	+10.78	-256.80	81	-279.45	68	68,70,76,81
24S 37E 22 331	BUCKLES	SNRS	-24.00	3-17	-	-24.00	81	-24.00	81	65,76,81
24S 37E 24 311	J. J. SMITH	ALVM	-95.00	3-18	-	-95.00	81	-95.00	81	70,81
24S 37E 25 234	EL PASO NAT. GAS CO.	ALVM	-88.84	3-18	+2.45	-88.84	81	-91.29	76	66,70,76,81
24S 37E 27 344	AMERADA HESS	ALVM	-35.60	3-17	-	-35.60	81	-38.88	78	78,81
24S 37E 28 242	MAE WOOLWORTH	ALVM	-64.39	3-19	+0.03	-64.39	81	-64.42	76	65,68,70,76,81
24S 37E 28 242	AMERADA	SNRS	-255.43	3-17	-	-255.43	81	-255.43	81	81
24S 37E 31 243	J. T. CRAWFORD	OGLL	-74.17	3-18	+2.00	-74.17	81	-76.17	76	68,70,76,81
24S 37E 34 412	UNKNOWN	ALVM	-53.05	3-18	-1.12	-51.93	76	-56.83	53	53,70,76,81
24S 37E 35 331	GEORGE ERWIN	ALVM	-78.01	3-18	+0.31	-76.63	68	-78.32	76	68,70,76,81
24S 37E 36 222	EL PASO NAT. GAS CO.	ALVM	-98.75	3-18	-	-98.75	81	-98.75	81	65-66,81
24S 38E 17 323	CLYDE COOPER	ALVM	-76.13	3-18	+0.20	-76.13	81	-76.33	76	65,68,70,76,81
24S 38E 19 333	CLYDE COOPER	ALVM	-53.44	3-18	-	-53.44	81	-53.44	81	81
24S 38E 21 333	CLYDE COOPER	ALVM	-96.65	3-18	-	-96.65	81	-97.43	68	65,68,70,76,81
24S 38E 30 312	CLYDE COOPER	ALVM	-66.19	3-18	-1.79	-59.56	66	-66.19	81	66,70,76,81
24S 38E 31 312	CLYDE COOPER	ALVM	-100.08	3-18	-1.98	-98.10	76	-100.08	81	65-66,71,76,81
24S 38E 32 333	SKELLY OIL CO.	SNRS	-260.62	3-18	+25.51	-260.62	81	-286.13	76	70,76,81
25S 33E 05 121	CARL JOHNSON	SNRS	-107.83	3-25	-	-107.83	81	-107.83	81	81
25S 33E 20 443	CARL D. BRININSTOOL	CHNL	-204.36	3-25	-	-204.36	81	-204.36	81	81
25S 33E 31 444	BEN ROBBINS	CHNL	-192.15A	3-25	-	-	-	-	-	81
25S 35E 03 233	MRS. BRYANT	ALVM	-108.04	3-27	-0.14	-107.90	76	-108.04	81	65,68,70,76,81
25S 35E 10 223	GEORGIA BRYANT	OGLL	-76.43A	3-27	-	-76.98	53	-76.98	53	53,65,68,70,76,81
25S 35E 13 334	W. D. DINWIDDIE	CHNL	-222.36	3-26	-	-218.63	71	-222.36	81	65,68,71,81
25S 35E 21 122	R. MADERA	SNRS	-172.86	4-01	-	-172.86	81	-172.86	81	81
25S 36E 06 134	W. D. DINWIDDIE	SNRS	-291.04	4-01	+1.25	-291.04	81	-300.78	71	68,71,76,81
25S 36E 10 242	WHITEY MEADOR	SNRS	-118.58	3-26	-	-118.58	81	-118.58	81	81
25S 36E 13 241	MARALO	SNPS	-270.43	3-30	-	-270.43	81	-270.43	81	81
25S 36E 15 111	W. D. DINWIDDIE	SNRS	-232.01	3-26	-	-232.01	81	-248.91	71	68,71,81
25S 36E 24 112	FRED COOPER	SNRS	-294.33	3-26	+0.76	-292.46	53	-298.23	68	53,65,68,70,76,81
25S 36E 26 222	FRED COOPER	CHNL	-243.03	3-26	+12.50	-243.03	81	-262.92	68	65,68,70,76,81
25S 36E 33 333	FRANK ANTHONY	CHNL	-247.59	3-26	-2.33	-245.26	76	-247.59	81	70,76,81
25S 37E 01 222	CLYDE COOPER	ALVM	-100.30	3-24	-	-100.30	81	-100.30	81	65,70,76,81
25S 37E 01 321	PURE OIL CO.	ALVM	-98.83	3-24	-	-98.83	81	-98.83	81	70,76,81
25S 37E 02 344	CITY OF JAL	ALVM	-106.16	3-25	-	-106.16	81	-106.16	81	65,70,76,81
25S 37E 03 242	J. J. SMITH	ALVM	-77.27	3-26	-	-77.03	68	-77.27	81	68,70,81
25S 37E 09 333	JACK CAROT	SNRS	-288.16	3-26	-	-259.46	66	-288.16	81	66,68,81
25S 37E 10 414	UNKNOWN	ALVM	-78.47	3-25	-0.03	-78.44	76	-78.47	81	70,76,81
25S 37E 11 133	EL PASO NAT. GAS CO.	ALVM	-97.98	3-25	-3.02	-94.96	76	-97.98	81	65,70,76,81
25S 37E 11 143	EL PASO NAT. GAS CO.	ALVM	-93.68	3-25	-0.26	-93.42	76	-93.68	81	65,70,76,81
25S 37E 12 244	CITY OF JAL	ALVM	-101.56	3-25	-0.58	-100.98	76	-101.56	81	65,70,76,81
25S 37E 13 312	CITY OF JAL	ALVM	-77.49	3-30	-0.53	-76.88	78	-77.49	81	65,70,76,78,81
25S 37E 13 431	GEORGE BLOCKER	ALVM	-71.06	3-30	-2.10	-68.82	78	-71.55	68	65-66,68,70,76,78,81
25S 37E 17 114	MAE WOOLWORTH	ALVM	-54.47	3-30	+1.04	-54.47	81	-57.66	68	53,65,68,70,76,81
25S 37E 18 421	JAL COUNTRY CLUB	ALVM	-58.25	3-30	+2.06	-58.25	81	-62.85	68	65,68,70,76,81
25S 37E 19 232	CITY OF JAL SCHOOLS	SNRS	-263.19	4-01	-	-263.19	81	-263.19	81	65,76,81
25S 37E 19 441	R. R. STMS	SNRS	-194.14	3-30	-	-194.14	81	-212.71	68	66,68,70,77,81
25S 37E 20 231	LEAMON BEARD	SNRS	-40.75	3-26	-0.34	-40.41	76	-40.75	81	65,70,76,81
25S 37E 20 233	LEAMON BEARD	SNRS	-191.48	3-26	-2.91	-188.57	76	-191.48	81	65,70,76,81
25S 37E 22 421	CLYDE COOPER	ALVM	-25.70	3-25	-	-25.67	68	-25.70	81	68,70,76,81
25S 37E 24 143	TIDEWATER OIL CO.	RSLR	-244.95	3-25	-	-235.60	78	-244.95	81	67-78,81
25S 37E 24 422	GEORGE BLOCKER	ALVM	-69.45	4-30	-0.97	-68.48	76	-69.45	81	65,70,76,81
25S 37E 25 233	HUGH WARD	ALVM	-54.89	3-25	-	-57.57	64	-56.37	53	53,55,64,68,70,78,81
25S 37E 26 143	CLYDE COOPER	ALVM	-87.10	3-25	+12.14	-87.10	81	-99.24	76	65,68,70,76,81
25S 37E 29 222	CITY OF JAL SCHOOLS	SNRS	-208.30	3-26	-	-208.30	81	-208.30	81	65,81
25S 37E 33 114	OLSEN OIL CO.	ALVM	-86.64	3-26	-0.36	-86.28	76	-87.94	68	53,66,68,70,76,81

A well being pumped
D nearby well pumped recently

TABLE 22.—WATER LEVELS IN THE TATUM-LOVINGTON-HOBBS AREA, LEA AND CHAVES COUNTIES, N. MEX., IN WINTER 1981, CHANGE FROM WINTER 1976 TO WINTER 1981, IN FEET, AND HIGHEST AND LOWEST RECORDED WINTER WATER LEVEL, IN FEET, REFERENCED TO LAND SURFACE DATUM.

LOCATION	OWNER NAME	SOURCE	81 WATER LEVEL	DATE	CHANGE	HIGH	YR	LOW	YR	YEARS OF RECORD
25S 37E 34 333	CLYDE COOPER	ALVM	-125.35	3-25	-	-97.45	68	-125.35	81	65,68,70,81
25S 37E 36 244	CLYDE COOPER	ALVM	-77.23	3-25	-1.75	-70.48	76	-74.70	53	53,65,68,70,76,81
25S 38E 09 343	J. T. CRAWFORD	OGLL	-88.08	3-24	+0.54	-88.08	81	-95.68	53	53,65,76,81
25S 38E 18 421	GEORGE BLOCKER	ALVM	-54.75	3-24	-1.41	-51.12	68	-54.75	81	65,68,70,76,81
25S 38E 19 313	GEORGE BLOCKER	ALVM	-70.72	3-25	-0.77	-60.71	53	-70.22	81	53,65,70,76,81
25S 38E 21 172	W. R. WILSON	OGLL	-86.05	3-25	+0.48	-85.89	68	-87.72	53	53,66,68,76,81
25S 38E 29 214	GEORGE BLOCKER	ALVM	-50.96	3-25	-0.70	-49.37	68	-50.96	81	65,68,70,76,81
25S 38E 31 133	T. LINEBERRY	ALVM	-71.75	3-25	-0.70	-71.05	76	-71.75	81	68,76,81
25S 38E 32 341	TOM LINEBERRY	ALVM	-56.69	3-25	-0.10	-56.38	70	-56.69	81	68,70,76,81
26S 33E 03 444	JIGGS DINWIDDIE	ALVM	-110.22C	3-24	+0.58	-110.80	76	-110.80	76	70,76,81
26S 33E 10 334	UNKNOWN	ALVM	-124.15	3-25	-0.19	-123.96	76	-124.15	81	70,76,81
26S 33E 27 211	BATTLE AXE RANCH	ALVM	-80.17	3-25	-6.10	-74.07	76	-80.17	81	70,76,81
26S 34E 06 214	UNKNOWN	CHNL	-129.43	3-25	-	-129.43	81	-129.43	81	54,71,81
26S 35E 13 272	EL PASO NAT. GAS	ALVM	-242.31	3-19	+2.09	-242.31	81	-244.40	76	70,76,81
26S 35E 24 342	MRS. SAM BECKHAM	ALVM	-220.40	3-08	-10.87	-209.53	76	-220.40	81	70,76,81
26S 36E 09 444	FRANK ANTHONY	ALVM	-176.18	3-18	-0.95	-175.23	76	-176.18	81	68,70,76,81
26S 36E 18 311	CITY OF JAL	ALVM	-241.02C	3-19	-7.41	-232.25	68	-233.61	76	65,68,70,76,81
26S 36E 23 222	FRANK ANTHONY	ALVM	-153.78	3-18	+0.86	-153.78	81	-154.64	76	65,68,70,76,81
26S 36E 29 314	MRS. SAM BECKHAM	ALVM	-157.22	3-18	-2.19	-155.03	76	-157.22	81	70,76,81
26S 36E 30 244	MRS. SAM BECKHAM	ALVM	-169.85	3-18	+2.45	-169.85	81	-172.30	76	76,81
26S 37E 02 311	CLYDE COOPER	ALVM	-101.12	3-17	+0.72	-90.61	68	-103.40	53	53,65,68,70,76,81
26S 37E 09 322	MILLARD DUBLIN	CHNL	-86.49	3-13	-	-86.49	81	-86.49	81	81
26S 37E 12 133	CLYDE COOPER	ALVM	-104.60	3-13	+0.75	-104.60	81	-105.35	76	65,68,76,81
26S 37E 12 332	MILLARD DUBLIN	ALVM	-99.57	3-13	-	-99.57	81	-107.25	53	53,70,76,81
26S 37E 14 122	MILLARD DUBLIN	ALVM	-97.91	3-13	+1.00	-97.91	81	-100.57	53	53,66,68,70,76,81
26S 37E 16 442	UNKNOWN	ALVM	-94.53	3-13	+1.35	-94.53	81	-95.88	76	70,76,81
26S 37E 19 413	TOMMY LINEBERRY	SNRS	-185.33	3-18	+8.60	-185.33	81	-193.93	76	68,76,81
26S 37E 29 242	TOMMY LINEBERRY	ALVM	-87.52	3-17	+1.31	-87.52	81	-88.83	76	65,68,70,76,81
26S 38E 07 244	TOMMY LINEBERRY	ALVM	-61.45	3-20	+0.52	-58.62	53	-61.97	76	53,68,70,76,81
26S 38E 08 444	TOMMY LINEBERRY	ALVM	-62.40	3-20	+2.56	-62.40	81	-64.96	76	53,68,70,76,81
26S 38E 20 214	TOMMY LINEBERRY	ALVM	-38.41	3-20	+1.64	-38.41	81	-40.77	68	53,68,70,76,81
26S 38E 29 411	TOM LINEBERRY	ALVM	-37.92	3-19	+0.52	-37.92	81	-38.44	76	68,70,76,81
26S 38E 32 311	TOMMY LINEBERRY	SNRS	-155.32	3-19	+4.62	-142.41	53	-201.40	68	53,66,68,70,76,81
27S 38E 05 141	LINEBERRY	ALVM	-70.00	3-19	-	-70.00	81	-70.00	81	81

C nearby well being pumped

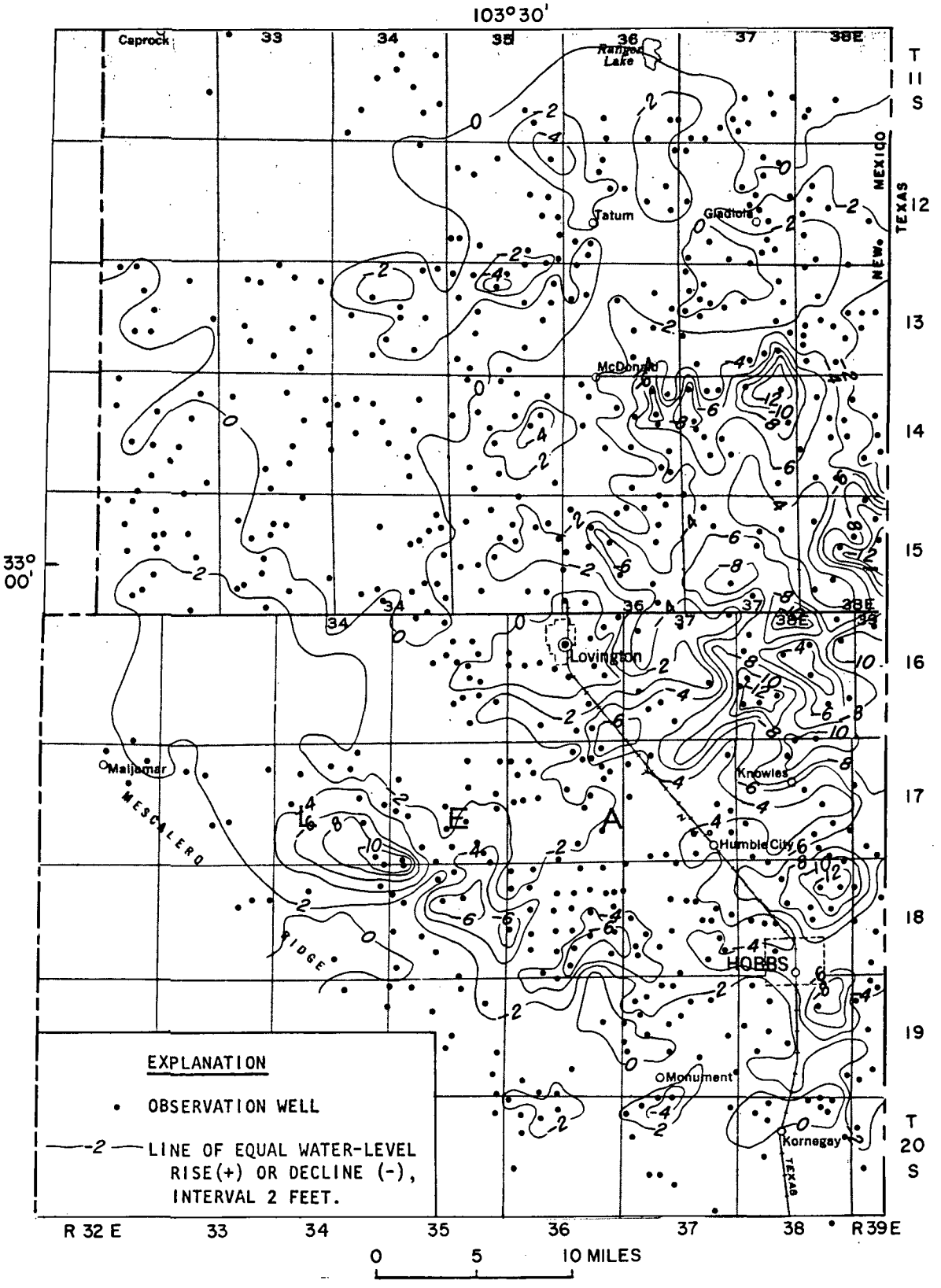


Figure 16.--Change of ground-water level from winter 1976 to winter 1981 in the Tatum-Lovington-Hobbs area, Lea County, New Mexico.

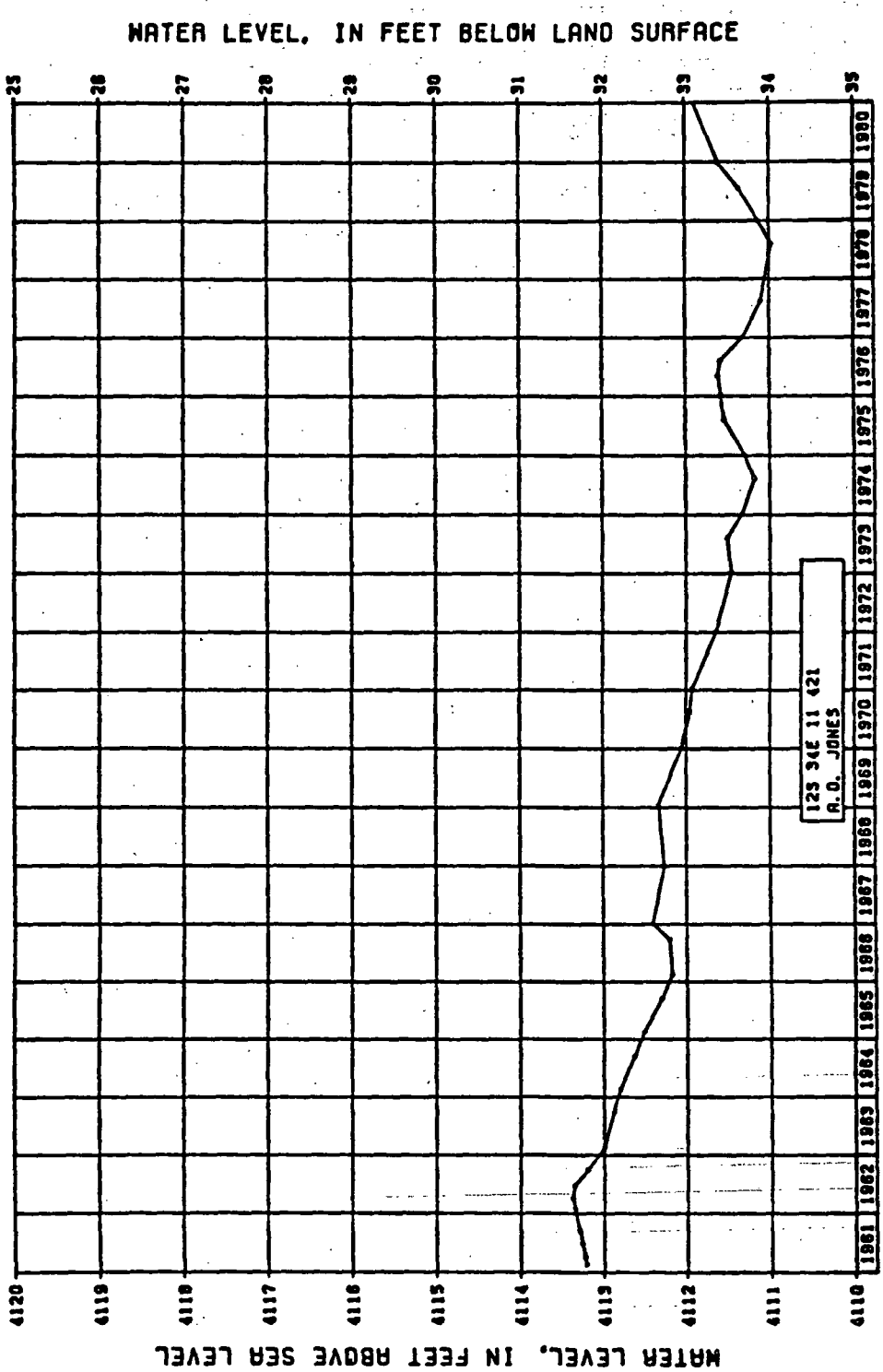


FIGURE 17.--Annual water level in well 12S.34E.11.421, Tatum-Lovington-Hobbs area.

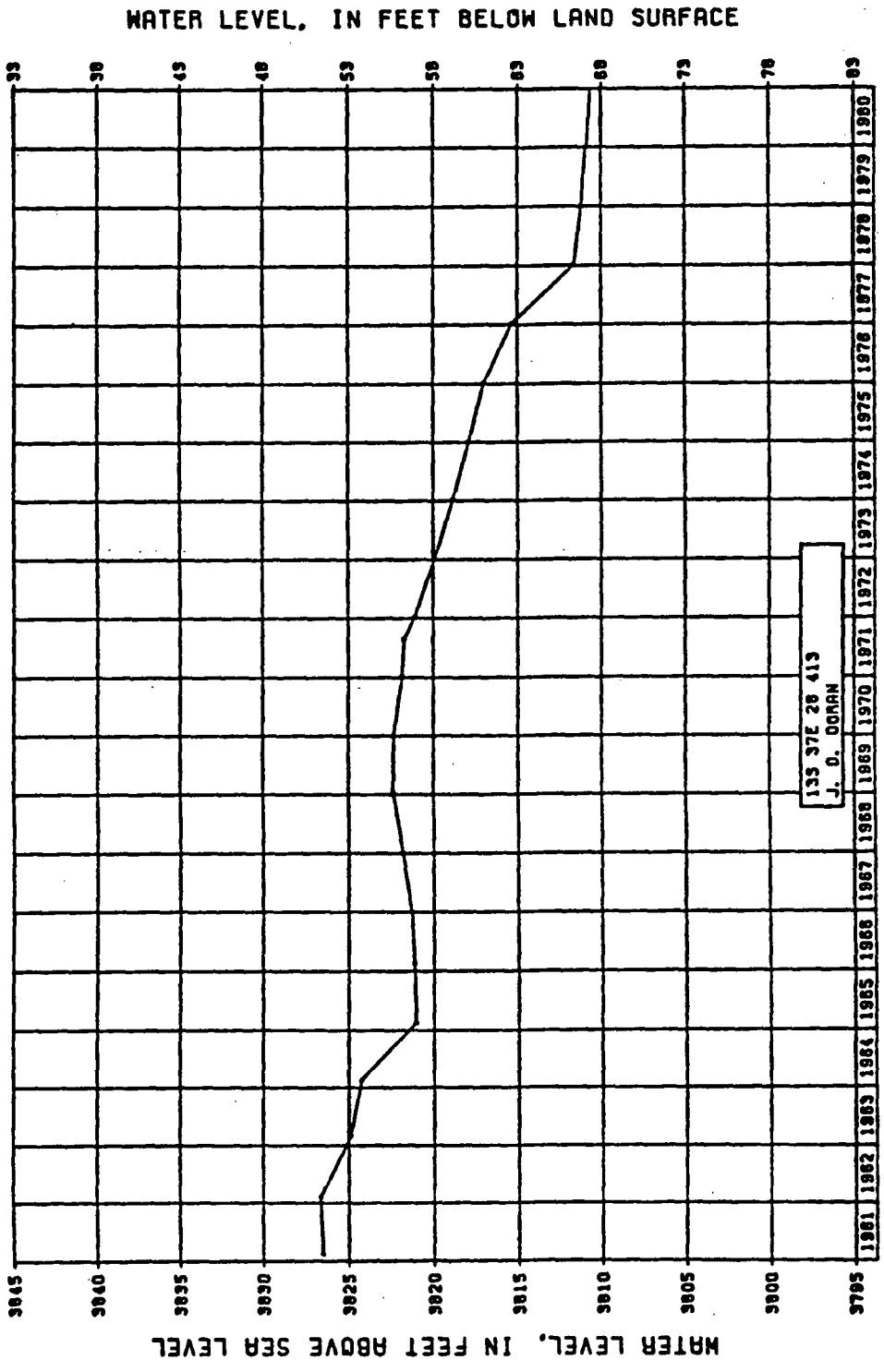


FIGURE 18.--Annual water level in well 13S.37E.28.413, Tatum-Lovington-Hobbs area.

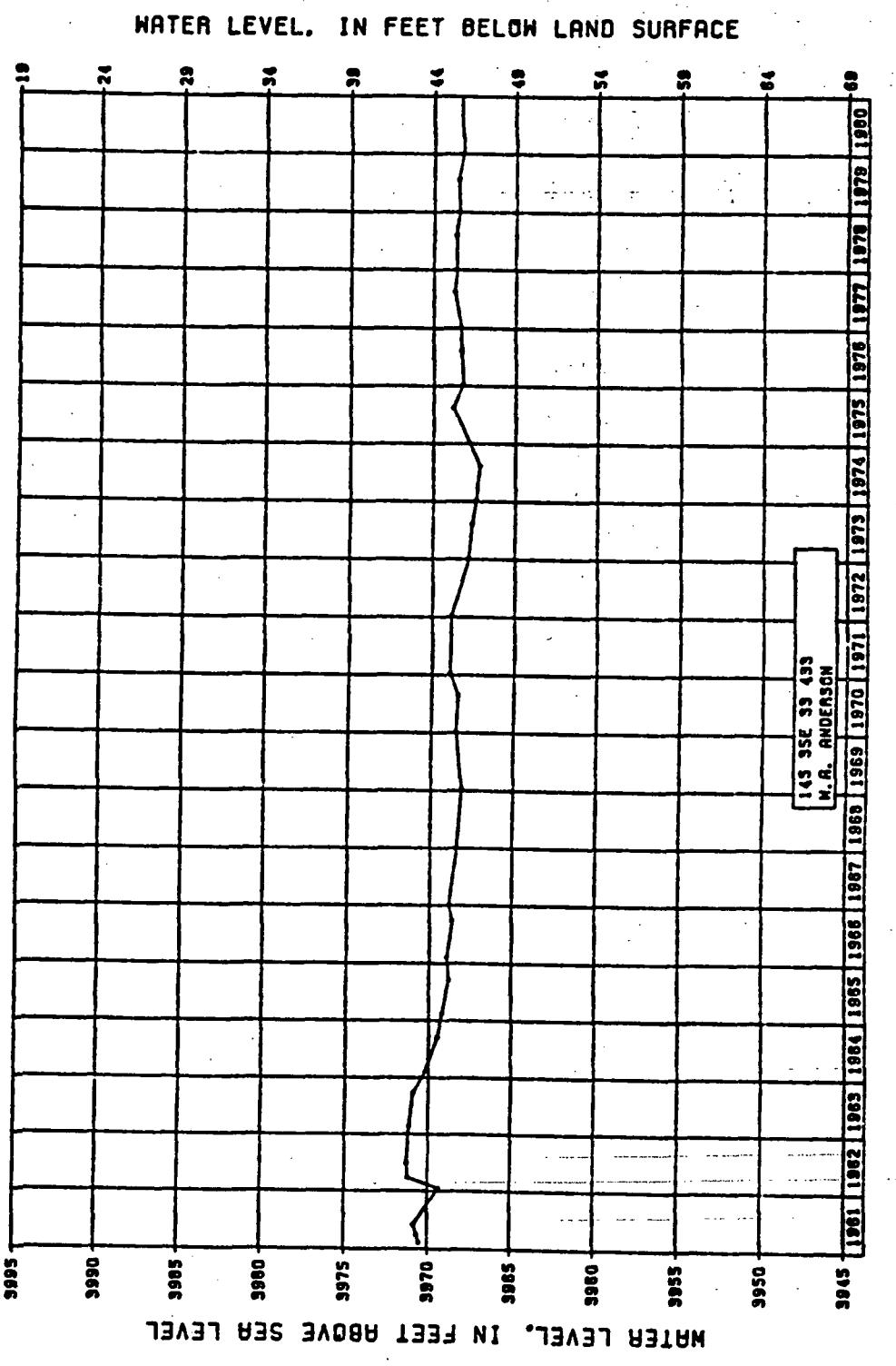


FIGURE 19.--Annual water level in well 14S.35E.33.433, Tatum-Lovington-Hobbs area.

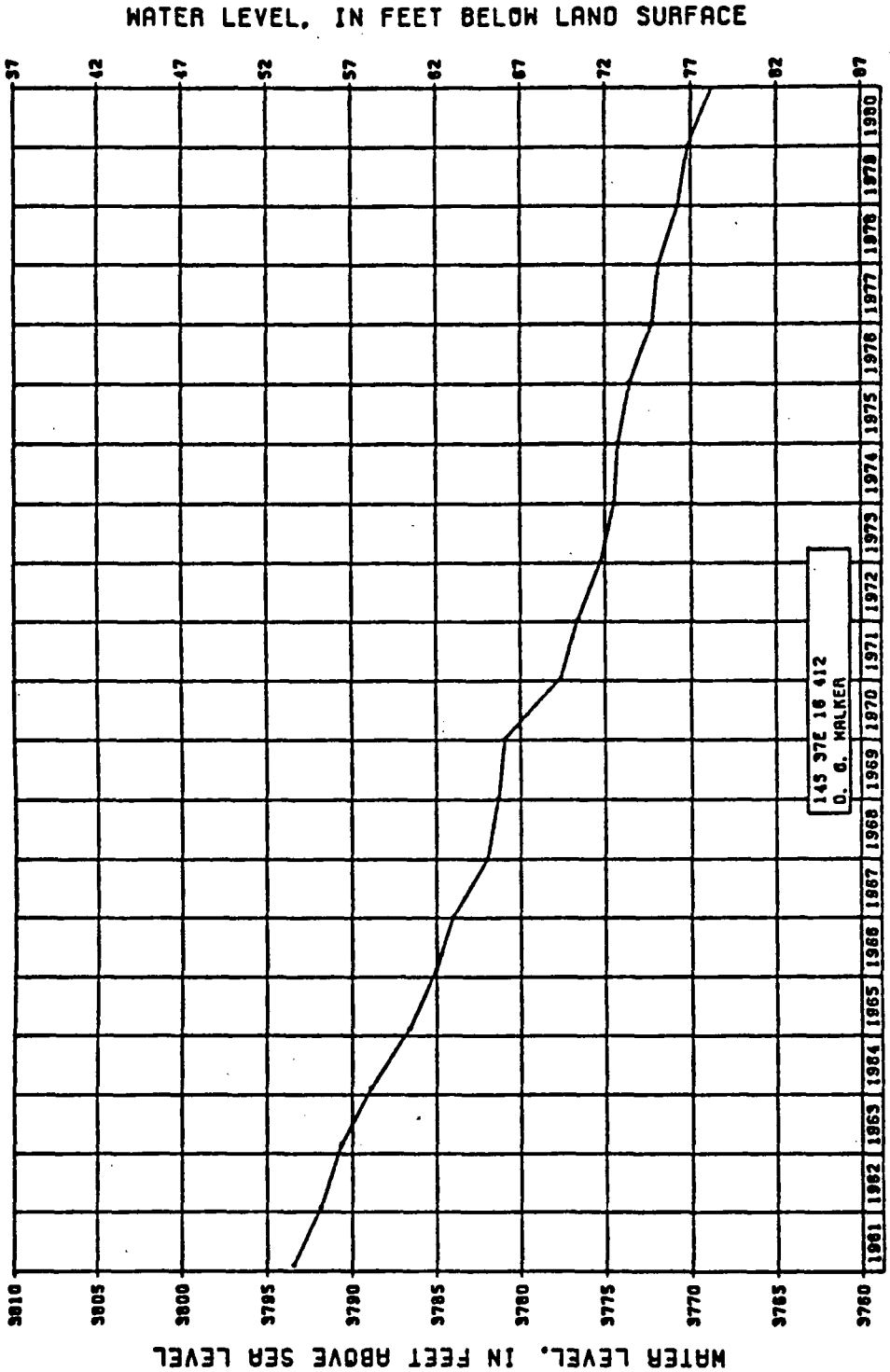


FIGURE 20.--Annual water level in well 14S.37E.16.412, Tatum-Lovington-Hobbs area.

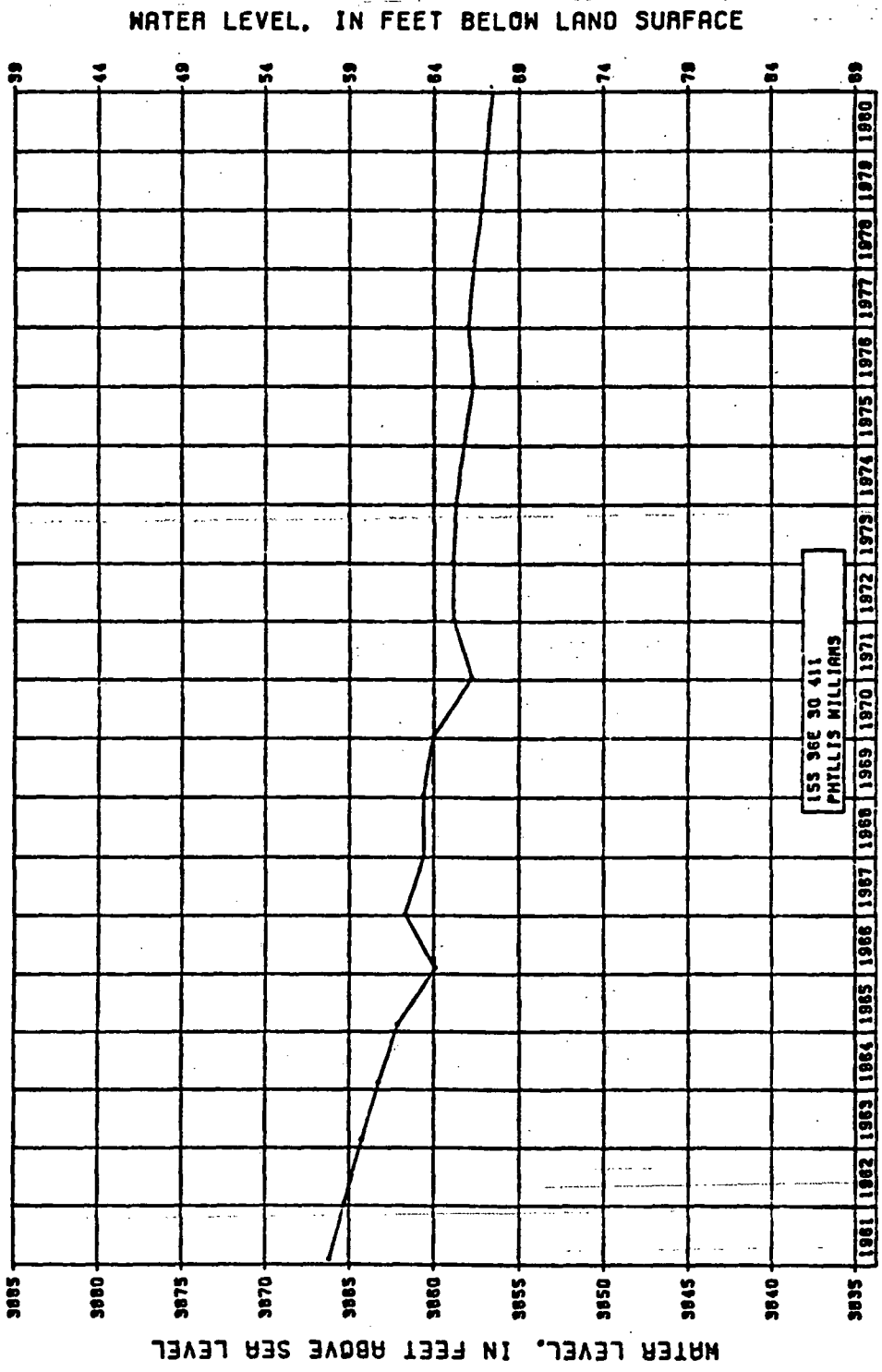


FIGURE 21.--Annual water level in well 15S.36E.30.411, Tatum-Lovington-Hobbs area.

TABLE 23.--Daily water levels in well 16S.36E.04.322, City of Lovington, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Drilled well completed in Ogallala Formation; depth 212 ft.; led is 3,926 ft. above msl. Highest water level 65.02 Jan. 4, 1980; lowest water level 67.11 Aug. 24, 1971; records available 1971-80.

Daily highest water level, in feet below land-surface datum, from recorder graph, 1978

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	65.82	65.81	65.71	65.61	65.60	65.74	65.81	65.98	65.21	-	65.99	65.79
2	65.79	65.82	65.72	65.62	65.59	65.73	-	-	-	-	65.98	65.78
3	65.78	65.83	65.74	65.63	65.60	65.76	-	-	-	-	65.92	65.81
4	65.78	65.83	65.72	65.62	65.58	65.73	-	-	-	-	65.88	65.80
5	65.89	65.80	65.71	65.60	65.60	65.74	65.81	65.97	65.03	-	65.91	65.75
6	65.87	65.76	65.71	65.62	65.62	65.73	-	-	-	-	65.97	65.79
7	65.88	65.78	65.74	65.61	65.63	65.76	-	-	-	-	65.98	65.79
8	65.91	65.77	65.73	65.67	65.63	65.78	-	-	-	-	65.90	65.82
9	65.87	65.80	65.71	65.60	65.64	65.76	-	-	-	-	65.87	65.80
10	65.88	65.75	65.67	65.62	65.63	65.75	65.80	65.21	66.22	-	65.88	65.79
11	65.86	65.74	65.71	65.62	65.62	65.76	-	-	-	-	65.95	65.81
12	65.86	65.73	65.64	65.61	65.64	65.79	-	-	-	-	65.87	65.79
13	65.88	65.80	65.69	65.61	65.66	65.78	-	-	-	-	65.88	65.78
14	65.85	65.76	65.70	65.61	65.63	65.77	-	-	-	-	65.88	65.74
15	65.84	65.77	65.73	65.60	65.61	65.76	65.89	65.91	66.19	-	65.90	65.73
16	65.85	65.74	65.73	65.59	65.62	65.76	-	-	-	-	65.88	65.75
17	65.84	65.78	65.71	65.60	65.63	65.77	-	-	-	-	65.88	65.73
18	65.84	65.77	65.69	65.60	65.68	65.78	-	-	-	66.01	65.88	65.72
19	65.86	65.76	65.68	65.61	65.66	65.75	-	-	-	66.01	65.88	65.72
20	65.84	65.74	65.66	65.59	65.71	65.77	65.89	65.99	66.00	66.00	65.88	65.73
21	65.86	65.79	65.67	65.58	65.67	65.76	-	-	-	65.29	65.86	65.73
22	65.84	65.75	65.63	65.60	65.67	65.77	-	-	-	66.00	65.83	65.72
23	65.81	65.74	65.64	65.60	65.69	65.79	-	-	-	66.01	65.83	65.70
24	65.82	65.73	65.64	65.61	65.70	65.78	-	-	-	65.99	65.83	65.72
25	65.83	65.74	65.68	65.61	65.70	65.77	65.83	66.04	66.08	65.99	65.81	65.71
26	65.83	65.73	65.65	65.60	65.71	65.79	-	-	-	66.00	65.81	65.73
27	65.84	65.72	65.64	65.59	65.72	65.81	-	-	-	66.00	65.83	65.70
28	65.84	65.73	65.63	65.59	65.73	-	-	-	66.07	66.00	65.80	65.68
29	65.82	-	65.66	65.59	65.73	-	-	-	-	65.99	65.81	65.70
30	65.82	-	65.64	65.58	65.73	65.82	-	-	-	65.99	65.80	65.71
31	65.81	-	65.62	-	65.72	-	65.96	66.21	-	66.00	-	65.71

TABLE 23.— Continued

16S.36E.04.322

Daily highest water level, in feet below land-surface datum, from recorder graph, 1979

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	65.68	65.60	65.51	65.47	65.39	65.46	65.53	65.66	65.72	-	65.11	-
2	65.70	65.62	65.50	65.46	65.39	65.48	65.54	65.66	65.73	-	65.11	-
3	65.70	65.62	65.52	65.48	65.40	65.47	65.54	65.67	65.73	-	65.10	-
4	65.69	65.61	65.53	65.47	65.46	65.46	65.55	65.69	65.72	-	65.08	-
5	65.67	65.59	65.53	65.48	65.40	65.46	65.56	65.69	65.73	-	65.11	-
6	65.66	65.59	65.53	65.47	65.39	65.46	65.58	65.68	65.73	-	65.14	-
7	65.68	65.58	65.51	65.46	65.39	65.47	65.54	65.68	65.74	-	65.10	-
8	65.68	65.60	65.49	65.47	65.39	65.48	65.57	65.68	65.74	-	65.02	-
9	65.67	65.58	65.51	65.41	65.39	65.48	65.57	65.70	65.74	-	65.06	-
10	65.66	65.59	65.53	65.40	65.43	65.57	65.58	65.70	65.73	-	65.10	-
11	65.65	65.58	65.51	65.42	65.45	65.50	65.57	65.70	65.73	-	65.06	-
12	65.64	65.59	65.49	65.46	65.46	65.50	65.59	65.70	65.74	-	65.11	-
13	65.64	65.56	65.50	65.47	65.43	65.50	65.59	65.70	65.74	-	65.09	-
14	65.67	65.53	65.51	65.47	65.43	65.50	65.59	65.71	65.75	-	65.09	-
15	65.66	65.56	65.51	65.46	65.43	65.49	65.61	65.71	65.76	-	65.09	-
16	65.66	65.58	65.50	65.46	65.41	65.49	65.63	65.72	65.75	-	65.08	-
17	65.66	65.57	65.48	65.42	65.41	65.49	65.62	65.72	65.75	-	-	-
18	65.65	65.56	65.49	65.44	65.41	65.49	65.63	65.72	65.75	-	-	-
19	65.62	65.53	65.49	65.43	65.41	65.50	65.63	65.71	65.75	-	-	-
20	65.64	65.54	65.49	65.44	65.40	65.52	65.64	65.72	65.74	-	-	-
21	65.65	65.53	65.48	65.45	65.43	65.51	65.63	65.72	65.76	-	-	-
22	65.60	65.53	65.48	65.45	65.44	65.50	65.64	65.72	65.78	-	-	-
23	65.65	65.52	65.49	65.42	65.46	65.51	65.64	65.72	-	-	-	-
24	65.63	65.54	65.49	65.40	65.43	65.52	65.63	65.69	-	-	-	-
25	65.61	65.55	65.47	65.41	65.42	65.52	65.64	65.72	-	-	-	-
26	65.63	65.51	65.49	65.41	65.42	65.53	65.65	65.72	-	-	-	-
27	65.64	65.51	65.48	65.42	65.39	65.53	65.66	65.72	-	-	-	-
28	65.63	65.52	65.47	65.40	65.41	65.53	65.66	65.72	-	-	-	-
29	65.61	-	65.47	65.42	65.41	65.54	65.66	65.72	-	65.83	-	-
30	65.64	-	65.48	65.41	65.43	65.53	65.66	65.73	-	65.11	-	-
31	65.63	-	65.46	-	65.45	-	65.67	65.72	-	65.10	-	-

TABLE 23.— Concluded

16S.36E.04.322

Daily highest water level, in feet below land-surface datum, from recorder graph, 1980

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-	-	-	-	65.36	65.40	65.49	65.61	65.64	65.80	-	-
2	-	-	-	-	65.38	65.40	65.49	65.61	65.64	65.80	-	-
3	-	-	-	-	65.38	65.40	65.49	65.61	65.64	65.80	-	-
4	65.02	-	-	-	65.38	65.40	65.49	65.61	65.64	65.80	-	-
5	-	-	-	-	65.38	65.41	65.50	65.61	65.64	65.80	-	-
6	-	-	-	-	65.38	65.41	65.52	65.61	65.64	65.80	-	-
7	-	-	-	-	65.39	65.41	65.52	65.61	65.65	65.80	-	-
8	-	-	-	-	65.39	65.41	65.52	65.61	65.65	65.80	-	-
9	-	-	-	-	65.39	65.41	65.52	65.61	65.65	65.80	-	-
10	-	-	-	-	65.39	65.41	65.53	65.61	65.65	65.80	-	-
11	-	-	-	-	65.39	65.41	65.54	65.61	65.65	65.80	-	-
12	-	-	-	-	65.40	65.41	65.54	65.62	65.65	65.80	-	65.63
13	-	-	-	-	65.40	65.41	65.54	65.62	65.65	65.80	-	65.62
14	-	-	-	-	65.40	65.41	65.54	65.62	65.65	65.80	-	65.62
15	-	-	-	-	65.40	65.41	65.54	65.62	65.65	65.80	-	65.62
16	-	-	-	65.34	65.40	65.41	65.54	65.62	65.65	65.80	-	65.62
17	-	-	-	65.39	65.40	65.41	65.54	65.63	65.65	65.80	-	65.62
18	-	-	-	65.39	65.40	65.41	65.54	65.63	65.65	65.80	-	65.61
19	-	-	-	65.39	65.40	65.41	65.54	65.63	65.65	65.80	-	65.61
20	-	-	-	65.38	65.40	65.41	65.54	65.63	65.65	65.80	-	65.61
21	-	-	-	65.38	65.40	65.41	65.54	65.63	65.65	65.80	-	65.61
22	-	-	-	65.38	65.40	65.48	65.54	65.63	65.65	65.82	-	65.61
23	-	-	-	65.37	65.40	65.48	65.59	65.63	65.65	65.82	-	65.61
24	-	-	-	65.35	65.40	65.48	65.59	65.63	65.65	65.83	-	65.61
25	-	-	-	65.35	65.40	65.48	65.59	65.63	65.65	65.78	-	65.61
26	-	-	-	65.38	65.40	65.48	65.60	65.63	65.61	65.78	-	65.60
27	-	-	-	65.38	65.40	65.48	65.60	65.63	65.80	65.78	-	65.60
28	-	-	-	65.38	65.40	65.48	65.61	65.63	65.80	65.81	-	65.60
29	-	-	-	65.34	65.40	65.48	65.61	65.63	65.80	65.77	-	65.60
30	-	-	-	65.36	65.40	65.48	65.61	65.63	65.80	-	-	65.60
31	-	-	-	-	65.40	-	65.61	65.60	-	-	-	65.60

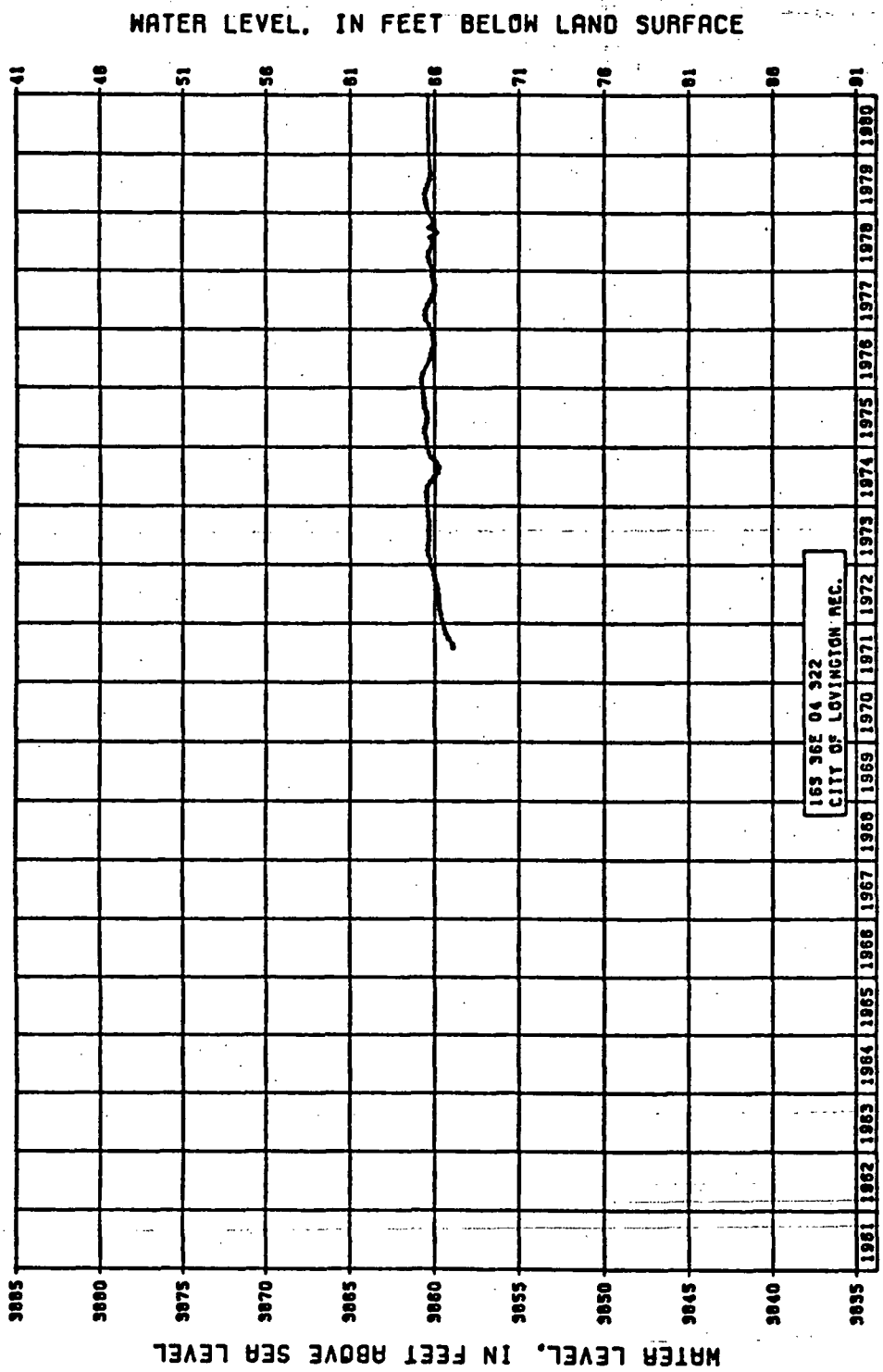


FIGURE 22.--Average-monthly water level in well 16S.36E.04.322, Tatum-Lovington-Hobbs area.

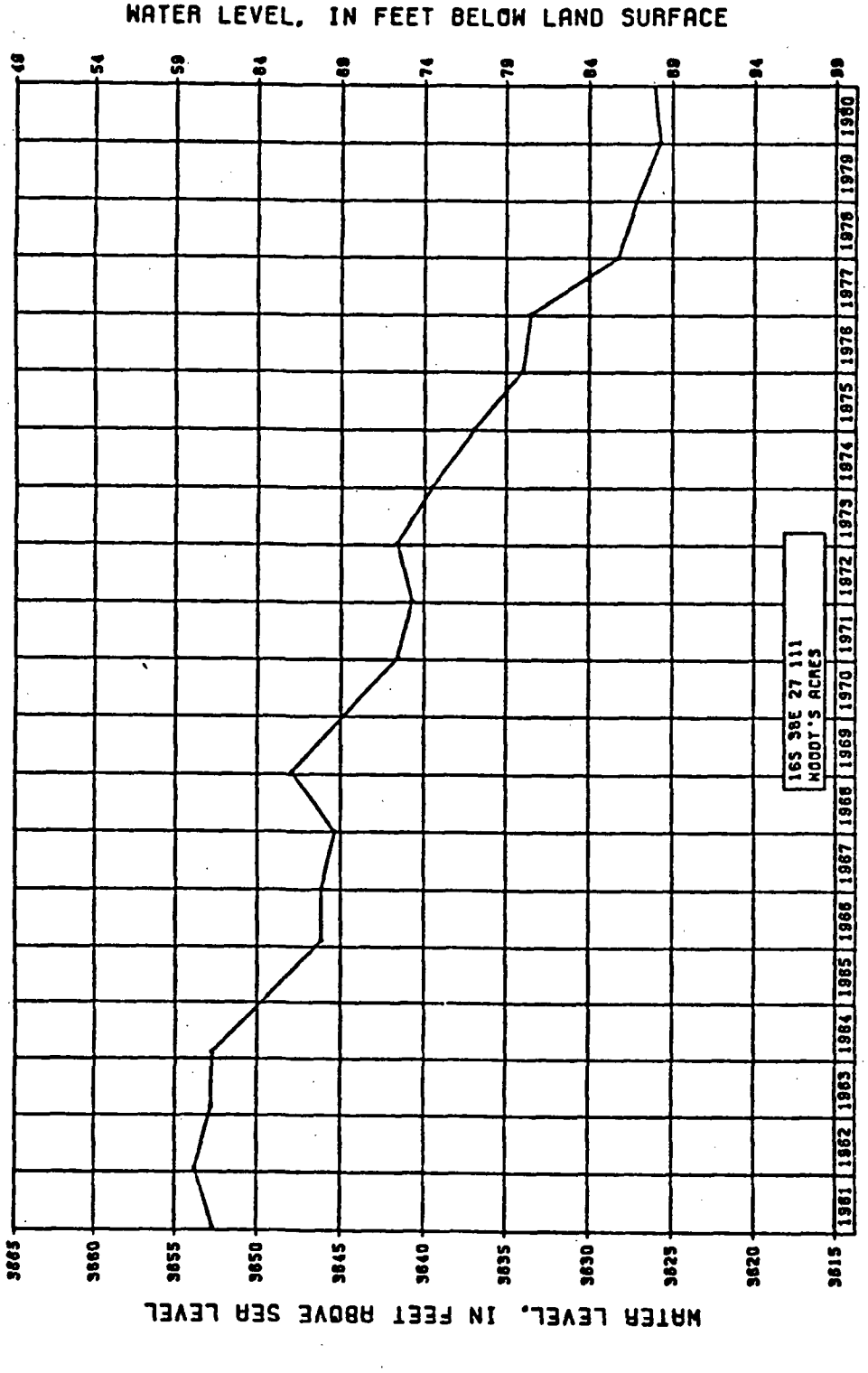


FIGURE 23.--Average-monthly water level in well 16S.38E.27.111, Tatum-Lovington-Hobbs area.

TABLE 24.--Daily water levels in well 17S.33E.13.341, Potash Company of America, Tatum-Lovington-Hobbs area, Lea County, N. Mex. Drilled well completed in Ogallala Formation; depth 252 ft.; lsd is 4,124 ft. above msl. Highest water level 146.00 Jan. 21, 1953; lowest water level 174.18 Oct. 29, 1980; records available 1952-80.

Daily highest water level, in feet below land-surface datum, from recorder graph, 1978

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	169.93	169.67	169.91	169.93	170.08	170.34	170.46	170.74	170.74	170.88	171.11	170.80
2	169.80	169.69	169.65	170.04	170.08	170.41	170.49	170.79	170.75	170.91	171.03	170.80
3	169.82	169.48	169.72	170.06	170.08	170.42	170.47	170.78	170.77	170.98	171.02	170.95
4	169.84	169.42	169.66	169.98	169.99	170.28	170.52	170.78	170.77	170.90	171.11	170.60
5	169.87	169.42	169.66	169.98	170.06	170.37	170.53	170.76	170.77	170.90	171.11	170.80
6	169.74	169.50	169.71	170.07	170.11	170.38	170.54	170.67	170.76	171.00	171.13	170.81
7	169.74	169.50	169.79	170.02	170.16	170.42	170.56	170.67	170.78	170.91	171.20	170.81
8	169.92	169.50	169.71	169.95	170.20	170.44	170.58	170.68	170.80	170.92	171.10	170.89
9	169.77	169.37	169.69	170.04	170.21	170.32	170.58	170.66	170.80	170.94	171.10	170.81
10	169.77	169.42	169.68	170.11	170.09	170.32	170.59	170.66	170.82	170.94	171.11	170.75
11	169.78	169.52	169.80	169.99	170.10	170.33	170.53	170.73	170.79	170.96	171.16	170.82
12	169.69	169.61	169.68	169.97	170.12	170.40	170.57	170.75	170.77	170.95	171.07	170.94
13	169.71	169.49	169.78	170.02	170.22	170.27	170.61	170.73	170.80	170.95	171.07	170.76
14	169.75	169.54	169.86	170.03	170.15	170.28	170.65	170.75	170.87	170.95	171.07	170.64
15	169.60	169.49	169.94	170.06	170.13	170.30	170.63	170.77	170.90	171.05	171.04	170.65
16	169.59	169.51	169.91	170.02	170.14	170.31	170.62	170.77	170.91	170.95	170.98	170.80
17	169.59	169.59	169.87	170.03	170.15	170.35	170.63	170.76	170.83	170.93	170.98	170.72
18	169.64	169.56	169.85	170.07	170.24	170.37	170.65	170.82	170.83	170.95	170.97	170.71
19	169.62	169.54	169.85	170.07	170.23	170.31	170.68	170.83	170.84	170.93	170.92	170.74
20	169.62	169.55	169.87	169.95	170.26	170.31	170.66	170.77	170.90	170.94	170.88	170.73
21	169.79	169.66	169.91	169.96	170.19	170.37	170.66	170.77	170.90	170.91	170.83	170.84
22	169.69	169.57	169.85	170.01	170.20	170.37	170.69	170.77	170.91	170.97	170.80	170.85
23	169.69	169.54	169.87	170.09	170.23	170.40	170.70	170.77	170.96	171.05	170.80	170.84
24	169.61	169.55	169.90	170.09	170.22	170.45	170.70	170.76	170.98	170.92	170.79	170.92
25	169.59	169.65	169.96	170.06	170.24	170.42	170.68	170.78	170.98	170.92	170.77	170.92
26	169.56	169.66	169.92	169.98	170.26	170.42	170.68	170.74	170.98	171.12	170.77	171.00
27	169.61	169.66	169.93	169.99	170.26	170.47	170.71	170.78	170.98	171.07	170.83	171.01
28	169.67	169.73	169.94	170.03	170.28	170.47	170.78	170.83	170.98	171.07	170.72	171.00
29	169.63	-	169.99	170.05	170.29	170.47	170.77	170.82	170.97	171.04	170.73	171.00
30	169.68	-	169.92	170.06	170.28	170.47	170.76	170.83	170.97	171.04	170.80	171.06
31	169.71	-	169.94	-	170.29	-	170.72	170.81	-	171.13	-	171.08

TABLE 24.— Continued

17S.33E.13.341

Daily highest water level, in feet below land-surface datum, from recorder graph, 1979

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	171.09	171.28	171.58	171.79	171.94	172.24	172.17	172.40	172.40	172.20	172.55	172.59
2	171.03	171.30	171.54	171.79	171.94	172.24	172.20	172.40	172.46	172.20	172.54	172.66
3	171.03	171.38	171.62	171.79	171.87	172.18	172.18	172.40	172.44	172.20	172.48	172.66
4	171.07	171.33	171.69	171.80	171.85	172.17	172.17	172.40	172.42	172.29	172.46	172.65
5	171.05	171.30	171.68	171.80	171.87	172.16	172.16	172.41	172.41	172.18	172.47	172.64
6	171.05	171.30	171.68	171.85	171.92	172.11	172.15	172.36	172.40	172.22	172.48	172.58
7	171.06	171.34	171.68	171.85	171.94	172.14	172.15	172.36	172.41	172.22	172.35	172.59
8	171.12	171.35	171.61	171.85	172.09	172.15	172.12	172.38	172.37	172.23	172.35	172.72
9	171.12	171.28	171.61	171.82	172.09	172.15	172.12	172.39	172.36	172.24	172.44	172.70
10	171.12	171.30	171.76	171.77	172.09	172.23	172.12	172.40	172.36	172.46	172.54	172.61
11	171.13	171.41	171.58	171.77	172.18	172.27	172.12	172.40	172.36	172.46	172.52	172.61
12	171.13	171.42	171.59	171.87	172.18	172.25	172.12	172.40	172.36	172.46	172.54	172.77
13	171.13	171.42	171.61	171.99	172.17	172.25	172.15	172.40	172.36	172.46	172.56	172.78
14	171.16	171.41	171.76	172.00	172.17	172.25	172.15	172.43	172.31	172.45	172.55	172.65
15	171.12	171.41	171.75	172.00	172.17	172.09	172.18	172.40	172.24	172.43	172.55	172.61
16	171.19	171.59	171.67	171.88	172.17	172.10	172.17	172.44	172.20	172.31	172.55	172.62
17	171.21	171.45	171.67	171.85	172.18	172.13	172.14	172.43	172.20	172.31	172.46	172.90
18	171.11	171.47	171.67	171.84	172.13	172.14	172.14	172.42	172.21	172.35	172.48	172.90
19	171.15	171.37	171.71	171.89	172.10	172.15	172.15	172.43	172.15	172.32	172.59	172.90
20	171.17	171.37	171.71	171.92	172.10	172.22	172.18	172.44	172.13	172.32	172.61	172.90
21	171.20	171.45	171.63	171.97	172.10	172.20	172.20	172.45	172.14	172.34	172.62	172.87
22	171.10	171.45	171.66	171.93	172.11	172.16	172.21	172.45	172.19	172.42	172.65	172.87
23	171.28	171.53	171.75	171.90	172.17	172.13	172.21	172.45	172.19	172.49	172.64	172.87
24	171.24	171.54	171.75	171.90	172.18	172.18	172.23	172.45	172.20	172.45	172.64	172.89
25	171.24	171.57	171.72	171.90	172.19	172.18	172.26	172.46	172.20	172.44	172.64	172.89
26	171.30	171.44	171.72	171.91	172.19	172.20	172.27	172.50	172.20	172.43	172.56	172.89
27	171.33	171.44	171.74	171.94	172.14	172.19	172.26	172.49	172.19	172.42	172.57	172.90
28	171.26	171.59	171.69	171.95	172.11	172.19	172.31	172.49	172.19	172.42	172.77	172.90
29	171.26	-	171.70	171.94	172.15	172.20	172.31	172.49	172.19	172.34	172.76	172.90
30	171.35	-	171.77	171.95	172.11	172.23	172.31	172.51	172.18	172.34	172.72	172.90
31	171.28	-	171.75	-	172.16	-	172.31	172.42	-	172.40	-	172.82

TABLE 24.-- Concluded

17S.33E.13.341

Daily highest water level, in feet below land-surface datum, from recorder graph, 1980

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	172.77	173.05	173.30	173.29	173.49	173.55	173.62	173.78	173.80	173.94	-	-
2	172.77	173.05	173.29	173.25	173.53	173.55	173.66	173.78	173.80	173.99	-	-
3	172.79	173.02	173.29	173.32	173.53	173.60	173.66	173.76	173.80	174.05	-	-
4	172.79	172.98	173.29	173.30	173.48	173.60	173.66	173.77	173.82	174.04	-	-
5	172.80	173.02	173.19	173.23	173.48	173.60	173.68	173.82	173.83	174.03	-	-
6	172.80	172.83	173.13	173.23	173.44	173.60	173.67	173.83	173.83	174.04	-	-
7	172.89	172.83	173.13	173.26	173.45	173.60	173.65	173.80	173.82	174.00	-	-
8	172.89	173.06	173.20	173.39	173.47	173.65	173.66	173.79	173.82	174.00	-	-
9	172.89	173.02	173.22	173.41	173.44	173.65	173.67	173.79	173.84	173.97	-	-
10	172.82	172.94	173.22	173.40	173.45	173.65	173.69	173.80	173.84	173.99	-	-
11	172.82	172.94	173.05	173.35	173.49	173.65	173.69	173.83	173.81	174.06	-	-
12	173.02	173.01	173.11	173.34	173.53	173.65	173.69	173.85	173.83	174.02	-	-
13	173.01	173.01	173.29	173.24	173.55	173.65	173.69	173.84	173.87	174.02	-	-
14	173.00	173.01	173.28	173.24	173.54	173.65	173.69	173.83	173.90	174.03	-	-
15	173.00	173.02	173.25	173.28	173.54	173.60	173.69	173.83	173.85	174.02	-	-
16	172.90	173.05	173.16	173.28	173.55	173.60	173.70	173.84	173.85	174.03	-	-
17	172.90	172.96	173.30	173.39	173.56	173.64	173.72	173.89	173.86	174.07	-	-
18	172.89	172.97	173.35	173.40	173.56	173.65	173.71	173.82	173.92	174.08	-	-
19	172.89	172.98	173.30	173.39	173.59	173.64	173.72	173.83	173.94	174.12	-	-
20	172.98	173.03	173.30	173.39	173.59	173.65	173.71	173.83	173.91	174.13	-	-
21	172.99	173.04	173.22	173.39	173.59	173.65	173.72	173.84	173.91	174.12	-	-
22	172.99	173.07	173.21	173.39	173.59	173.63	173.66	173.86	173.93	174.12	-	-
23	173.05	173.10	173.21	173.27	173.51	173.63	173.67	173.86	173.90	174.12	-	-
24	173.03	173.11	173.32	173.27	173.51	173.64	173.68	173.86	173.90	174.15	-	-
25	173.02	173.14	173.20	173.32	173.55	173.65	173.69	173.84	173.92	174.06	-	-
26	173.02	173.08	173.21	173.41	173.58	173.66	173.70	173.85	173.96	174.04	-	-
27	173.03	173.08	173.20	173.41	173.60	173.66	173.70	173.87	173.96	174.04	-	-
28	173.03	173.08	173.20	173.40	173.60	173.66	173.75	173.86	173.96	174.15	-	-
29	173.03	173.08	173.25	173.34	173.60	173.66	173.75	173.87	173.96	174.18	-	-
30	173.03	-	173.22	173.33	173.60	173.65	173.75	173.86	173.97	174.10	-	-
31	173.03	-	173.12	-	173.60	-	173.75	173.86	-	174.10	-	-

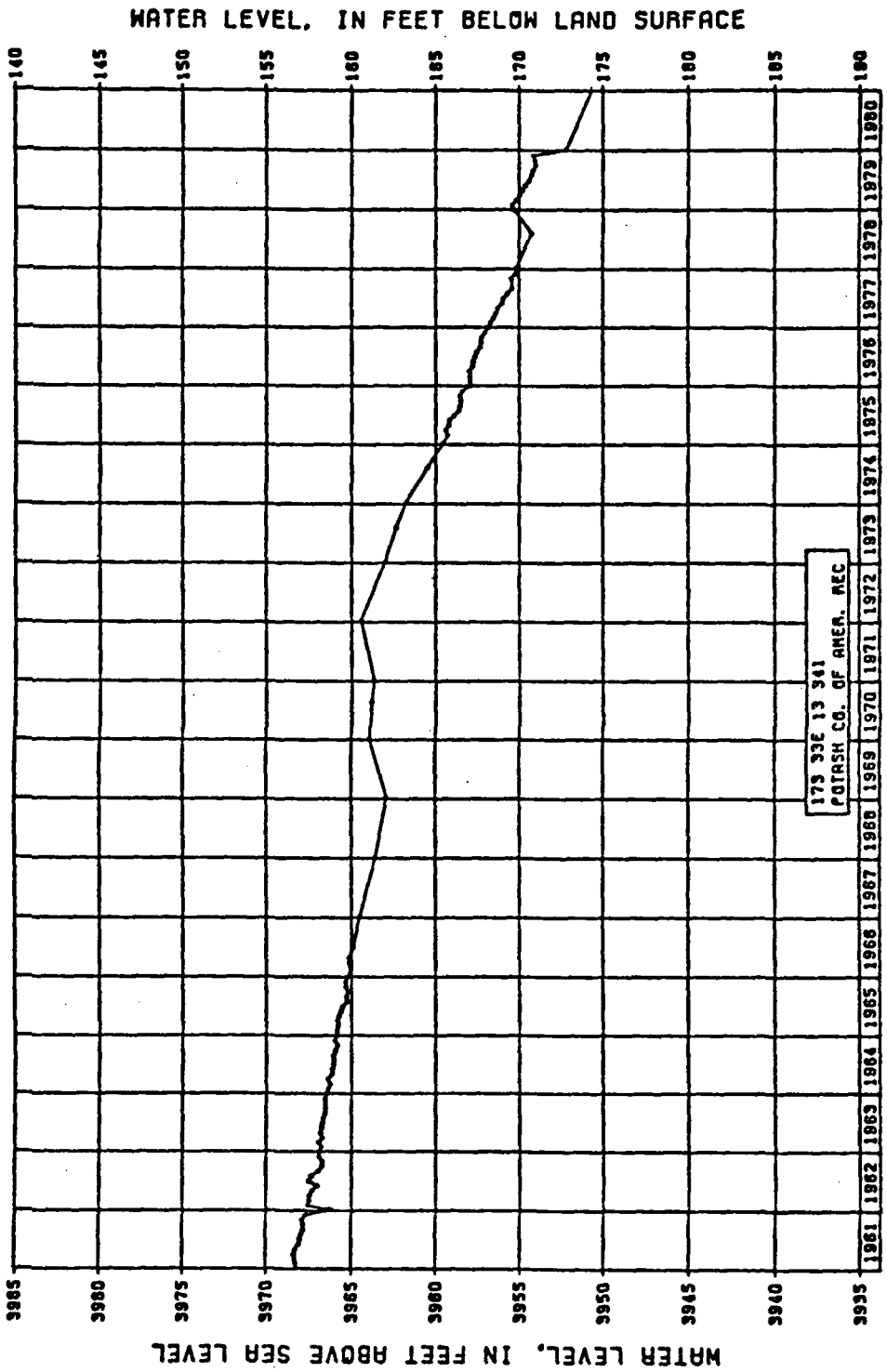


FIGURE 24.--Average-monthly water level in well 17S.33E.13.341, Tatum-Lovington-Hobbs area.

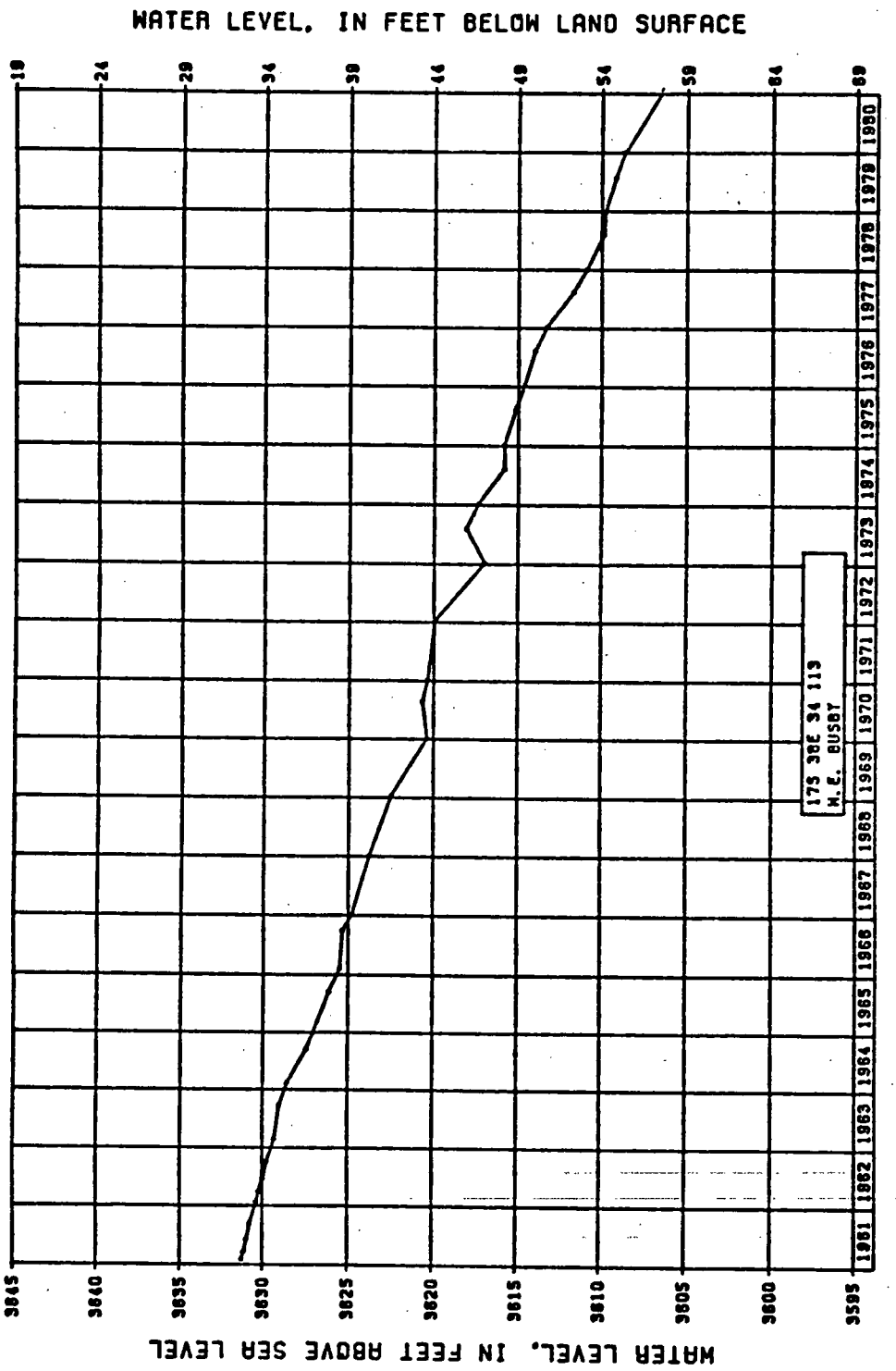


FIGURE 25.--Annual water level in well 17S.38E.34.113, Tatum-Lovington-Hobbs area.

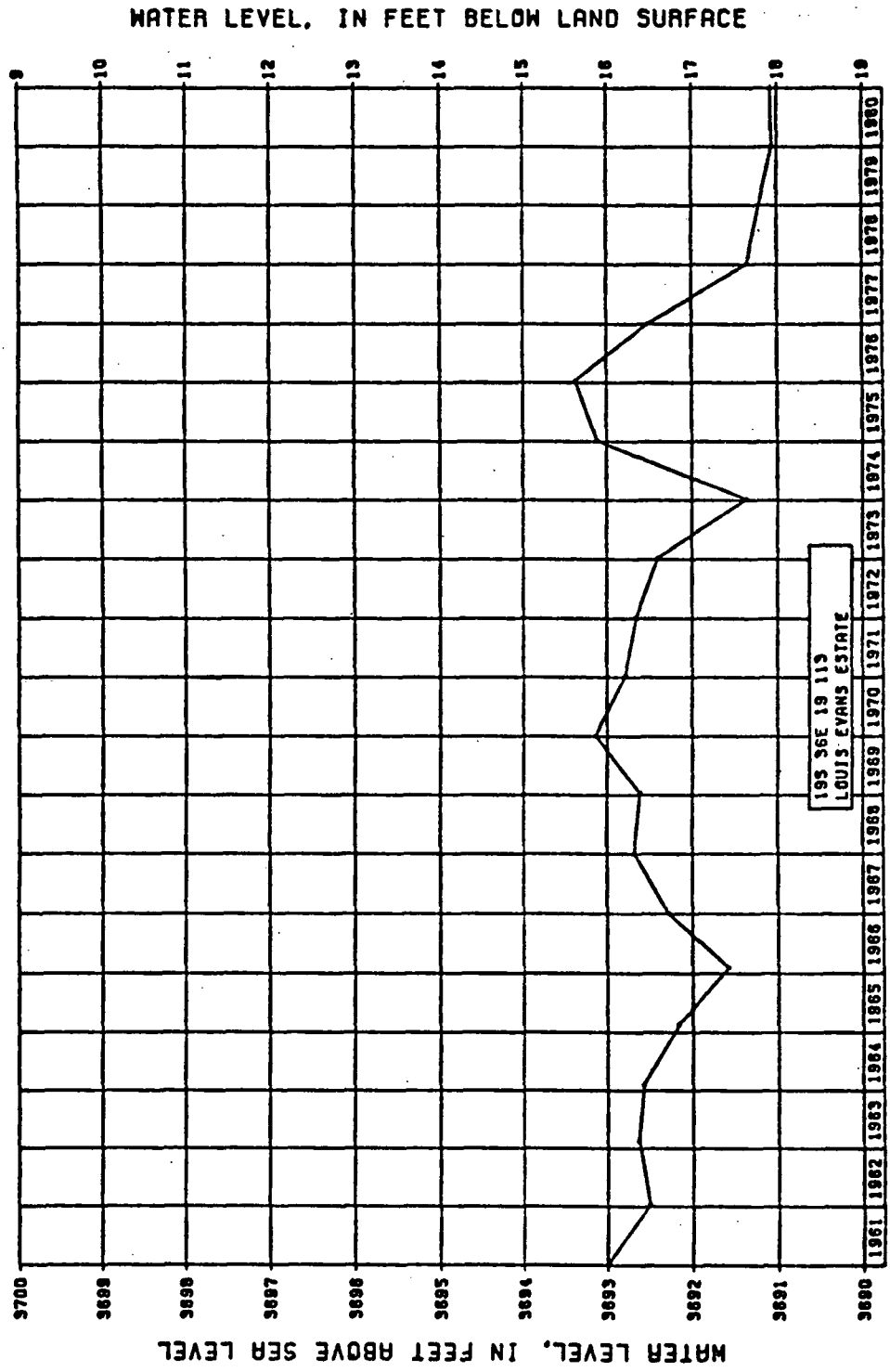


FIGURE 26.--Annual water level in well 19S.36E.19.113, Tatum-Lovington-Hobbs area.

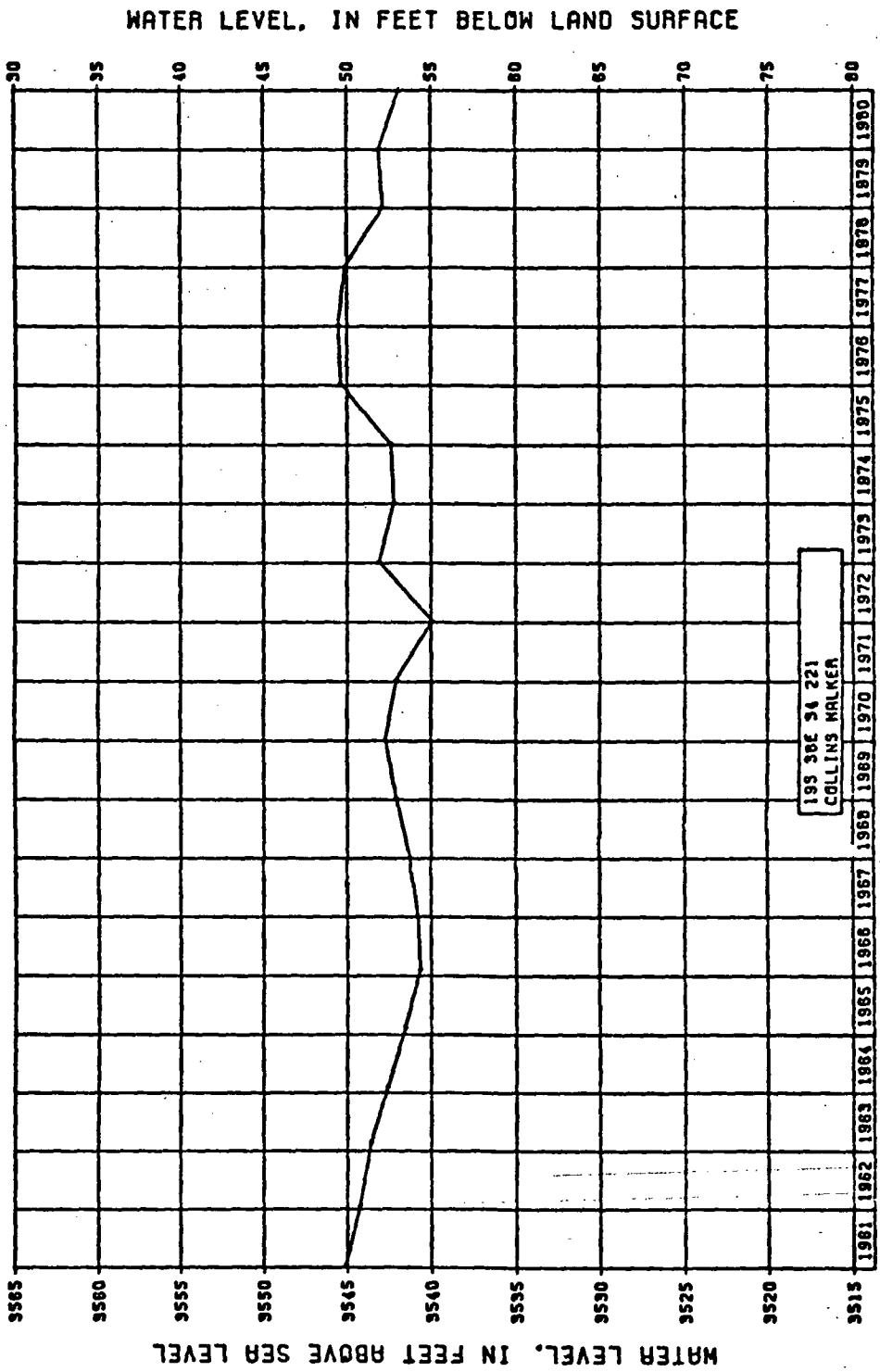


FIGURE 27.--Annual water level in well 19S.38E.34.221, Tatum-Lovington-Hobbs area.