RECR-10
Windmill Oil

OCD Misc. Files

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

(11)

SYMBOLS

DL = Day Letter

NL = Night Letter

LT = International Letter Telegram

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

LA06 SSC331

L RWA112 PD=WUX ROSWELL NMEX 16=

R F MONTGOMERY=

NMOCC BOX 2045 HOBBS NMEX=

1957 JUL 16 PM 3 24

MEETING OF COMMITTEE STUDYING PROTECTION HOBBS FRESH WATER SANDS CALLED FOR 1-30 PM JULY 19 IN HOBBS OCC CONFERENCE. MR E G MINTON OF LOVINGTON TO DISCUSS MOVEMENT OF WATER IN FRESH WATER SANDS. ALSO PLAN TO MAKE WORK ASSIGNMENTS. NOTIFY YOUR ALTERNATE IF YOU CANNOT ATTEND=

C L KELLEY PAN AMERICAN PETROLEUM CORP=

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

1201

SYMBOLS

DL = Day Letter

NL = Night Letter

LT = International Letter Telegram

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

LA00 SSM257

L RWA098 PD=WUX ROSWELL NMEX 11 220PMM= 1957 JUL 11 PM 3 00

RANDALL MONTGOMERY PRORATION MGR=

=OIL CONSERVATION COMMISSION HOBBS NMEX=

=AT OCC INFORMAL HEARING 7-9-57 IN HOBBS YOUR ORGANIZATION WAS APPOINTED TO SERVE ON COMMITTEE TO STUDY OTHER MEANS TO PREVENT CONTAMINATION OF FRESH WATER SANDS IN AREA OF HOBBS POOL AND STUDY POSSIBLE MEANS TO ELIMINATE CONTAMINATION OF FRESH WATER SANDS WHICH MAY HAVE ALREADY OCCURRED PLEASE ADVISE IMMEDIATELY NAME AND ADDRESS OF YOUR OFFICIAL REPRESENTATIVE AND HIS ALTERNATE WHO WILL SERVE ON THIS COMMITTEE PAN AMERICANS OFFICIAL REPRESENTATIVE IS C L

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

1201

SYMBOLS

DL = Day Letter

NL = Night Letter

LT = International Letter Telegram

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

(45) • = [illegible]

KELLEY WITH ALTERNATE J W BROWN• BOTH LOCATED IN ROSWELL 2ND FLOOR PETROLEUM BUILDING OR P O BOX 899 PLEASE ADDRESS MAIL AND WIRES REGARDING THIS COMMITTEE TO ABOVE ADDRESS=

C L KELLEY PAN AMERICAN PET CORP ROSWELL OFFICE=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

New Mexico

OIL CONSERVATION COMMISSION

LAND COMMISSIONER, MURRAY E. MORGAN
MEMBER

STATE GEOLOGIST, A.L. PORTER JR.
SECRETARY DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

July 10, 1957

Gentlemen:

The following companies and agencies are hereby appointed as a committee to make a study of fresh water contamination in the Hobbs Area (Hobbs, Bowers and Byers-Queen Pools) and make recommendations as to:

(1) Any action that may be taken by the Commission in addition to what is presently being done to prevent further contamination;

(2) Any corrective measures that may be employed to prevent further spread of present contamination.

Pan American Petroleum Corporation, Chairman
Samedan Oil Corporation
Shell Oil Company
Tidewater Associated Oil Company
Continental Oil Company
Hobbs City Water Board
State Engineer's Office
Hobbs Commission Staff

Each company or agency will be called upon by the Chairman to designate a representative to serve on the committee and each representative will be notified of the first meeting date, which will be in the very near future.

The committee is hereby instructed to make a progress report to the Commission not later than thirty days from this date. Your cooperation will be greatly appreciated.

Yours very truly,

A. L. Porter, Jr.

A. L. Porter, Jr.
Secretary - Director

ALP:bp

NEW MEXICO
OIL CONSERVATION COMMISSION

P. O. Box 871
Santa Fe, New Mexico

MEMORANDUM TO: All Hobbs Pool Operators:

SUBJECT: Casing Leaks -- Hobbs Pool.

All Hobbs Pool Operators are directed to perform the following tests on all flowing wells in the Hobbs Pool prior to October 1, 1953.

1. Take a Bottom Hole Pressure test after a minimum of 24 Hours shut-in at a datum of -400 and report the result to the Commission office at Hobbs on Form C-124-A (in triplicate).

2. Run a temperature survey to check for possible casing leaks.

3. Test all surface connections for any evidence of casing leaks.

Operators shall report the results of all tests in connection with this directive on Form C-103 and shall submit 2 copies of temperature surveys with the report.

In the event the tests show any evidence of possible casing leak operators shall take immediate steps to perform the necessary remedial work to assure this Commission that any and all oil or gas producing zones in the Hobbs area are confined to their original formation. Details of all remedial work shall be reported on Form C-103 or the appropriate USGS Form if the well is located on Federal land.

In the event any portion of the required tests outlined above have been performed since July 1, 1953 that portion of the required tests may be waived, however, operators shall be sure that appropriate Forms are on file in the Commission Office at Hobbs outlining the tests taken and the results thereof.

R. R. SPURRIER
Director

N. M. Oil and Gas Engineering Committee
Hobbs, New Mexico
8-25-53.

MINUTES OF THE HOBBS POOL OPERATORS COMMITTEE MEETING
AUGUST 25, 1953

The meeting was called to order by the Director who gave a resume of the reason for calling the meeting which pertained to a bradenhead leak in the Hobbs Pool. The Operator affected and offset operators reported on Bottom Hole Pressure and Temperature Surveys made in their wells. The results of which were illustrated by graphs and charts. Each Operator conducting such tests gave an outline of the work that had been done and what they proposed to do in the future.

A letter from Mr. R. R. Spurrier, Director of the New Mexico Oil Conservation Commission, addressed to all Hobbs Pool Operators was distributed. A copy of which is included herewith. Mr. W. B. Macey, Chief Engineer for the Commission, requested that the group outline a standard procedure for running this Temperature Survey. After some discussion the following procedure was adopted and recommended to the Oil Conservation Commission:

I. Well to be in a static condition - Shut-in a minimum of 24 Hours.

II. The survey instrument will be lowered at a maximum speed not to exceed fifty (50) feet per minute.

III. Reporting: Plot points every 100 feet (except where an anomaly appears in which case data shall be detailed) on 8 1/2" X 11" - 10 X 10 graph paper.

a. For the Ordinate from Zero to 4000' : 1" equal 400 Feet (Depth)

b. For the Obscissa from 65° to 100° : 1" equal 5° (Temp.)

c. On right hand side of page plot all casing strings 1" equal 400'.

d. On bottom left hand side record: Company, Lease Name, Well Number, Unit, Section, Township, Range, and Date survey was run.

Attached is a list of those attending the meeting.

Glenn Staley
Director

HOBBS POOL OPERATORS
August 25, 1953

ATTENDANCE RECORD

NAME-	COMPANY	ADDRESS
Rex C. Cabaniss	Shell Oil Company	Hobbs, New Mexico
Paul D. Sweitzer	The Texas Company	Monument, New Mexico
L. C. Hudry	Atlantic Refining Company	Denver City, Texas
J. S. Hutchins	" " "	" " "
R. W. Yarbrough	Union Oil Company of Calif.	Hobbs, New Mexico
L. B. Curtis	Continental Oil Company	" " "
Bill Kearley	Ohio Oil Company	" " "
E. Van Vranken	" " "	" " "
John A. Disch	Sinclair Oil and Gas Company	" " "
C. J. Merryman	Sun Oil Company	Odessa, Texas
D. C. Capps	Amerada Petroleum Corporation	Monument, New Mexico
W. G. Abbott	" " "	" " "
Paul S. Johnston	Texas-Pacific Coal and Oil Co.	Hobbs, New Mexico
C. C. Wilson	Continental Oil Company	" " "
R. S. Dewey	Humble Oil & Refining Company	Midland, Texas
K. C. Heald, Jr.	" " " "	Hobbs, New Mexico
M. M. Rogers	" " " "	" " "
Max E. Curry	Skelly Oil Company	" " "
Chas F. Dwyer, Jr.	Standard Oil Company of Texas	Royalty, Texas
W. B. Macey	Oil Conservation Commission	Santa Fe, New Mexico
George E. Trimble	Samedan Oil Corporation	Midland, Texas
S. J. Stanley	Oil Conservation Commission	Hobbs, New Mexico
H. A. DuPont	U. S. Geological Survey	" " "
H. E. Massey	Cities Service Oil Company	" " "
H. Lucchi	" " " "	" " "
E. E. Noble	Samedan Oil Corporation	Midland, Texas
Earl Woolwine	" " "	Hobbs, New Mexico
R. L. Hendrickson	Stanolind Oil and Gas Company	" " "

N. M. Oil and Gas Engineering Committee
Hobbs, New Mexico
8-26-53.

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR / LEASE - DATE COMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface	Intermediate	Production	Liner / Patch Liner / Full String	Date Leak Found	String and Depth of Leak	Repaired Date	Remarks
AMERADA PET. CO.										
State B Bowers	5-O	29-18-38	10" 220/200	7" 1665/300	5" 3136/300					
State B Sept 11'30 Hobbs	1-F	29-18-38	12" 210/200	9" 2740/400	7" 3997/500					
State B Sept 6 '30 Hobbs	2-G	29-18-38	12" 221/250	9" 2756/500	7" 3995/200		8/25/53	7" 1788/1810	12/22/53	
ATLANTIC RFG. CO.										
Grimes Hobbs	1-O	20-18-38	12" 232/200	9" 2790/500	6" 4037/300					
CITIES SERVICE OIL CO.										
Fowler May 14'30 Hobbs	1-A	31-18-38	12" 242/N.R.	9" 2744/N.R.	7" 3938/N.R.		9/22/53	7" 964/1894 2187/2211	10/29/53	
Fowler Apr 16'34 Hobbs	4-H	31-18-38	12" 242/100	9" 2760/300	7" 3955/150	5" New String 4190?/635	7/26/54	7 x 9 2700	8/16/54	
CONTINENTAL OIL CO. (Min Cost $1,900 Max Cost $15,000 Avg. $6,516)										
Grimes July 14'34 Hobbs	1-O	28-18-38	12" 222/180	9" 1637/300	7" 3975/400	5" Liner @ 3927/4277	9/23/53	7" 370'	11/21/53	
Grimes May 13'35 Hobbs	3-J	38-18-38	10" 245/150	7" 1635/300	5" 4015/300		7/7/54	5" 292/412	7/16/54	
State A-29 Hobbs	3-K	29-18-38	15" 252/1000	9" 2729/600	7" 3953/300		9/11/56		2/3/57?	
State A-29 Apr 16'47 Bowers	5-K	29-18-38	10" 380/200	7" 1573/425	5" 3197/450		8/29/56	7" x 5"	7/1/57	Leak in well head Tested 1500 p.s.i O.K.
State A-33 Sept 16'30 Hobbs	1-M	33-18-38	12" 209/165	9" 2738/500	7" 3976/275	No leak indicated in well file				
State A-33 Nov 12'31 Hobbs	4-J	33-18-38	15" 232/425	9" 2757/600	7" 3928/325	5" Liner 3871/4232	10/22053	7" 524 1116/1176	11/13/53	
State A-33 Mar 1'32 Hobbs	6--N	33-18-38	15" 223/387	9" 2754/600	7" 3971/350	5" 3911/4236	7/6/54	7" 259	7/26/54	
State A-33 Feb 1'33 Hobbs	7-G	33-18-38	15" 237/235	9" 2756/600	7" 3970/350	5" 4243/300	7/26/54	7" x 9" ?	12/3/54	
GETTY OIL CO. (Opr. by Tidewater) Min Cost $2,500 Max Cost $25,000.										
McKinley July 4'30 Hobbs	1-G	30-18-38	12" 245/200	9" 2758/600	7" 3856/250	5" 99jts. 4% gel. 405	9/10/53	7" 400/500	7/1/54.	

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR LEASE - DATE COMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface	Intermediate	Production	Liner Patch Liner Full String	Leak Found	String and Depth of Leak	Repaired Date	Remarks
GETTY OIL CO. (Continued)										
McKinley July 15 '30 Hobbs	2-H	30-18-38	12" 251/200	9" 2756/600	7" 3858/250	5" 4202/450	6/3/54	7" 227/903	7/7/54	$35,000+
[redacted]inley Aug 21 '30 Hobbs	4-B	30-18-38	12" 245/200	9" 2753/600	7" 3998/250		9/6/56	Could not get circulation	9/12/56	
McKinley May 29 '47 Bowers	6-G	30-18-38	11" 1474/400		5" 3160/200		9/4/56	Could not get circulation	9/14/56	
McKinley July 13 '47 Bowers	7-B	30-18-38	8" 1503/400		5" 3175/200		9/4/56		9/6/56	
GULF OIL CORP.										
Graham St. A Aug 10 '32 Hobbs	2-A	24-18-37	13" 229/300	9" 2790/600	7" 3975/250		12/7/55		1/10/56	
Grimes, W.D.BNov 1 '32 Hobbs	2-H	33-18-38	13" 221/175	9" 2761/500	6" 3959/250	5" Liner 3914/4169	4/17/56	7" ?	5/22/56	
Grimes, W.D. Aug 16 '34 Hobbs	3-B	33-18-38	13" 292/200	9" 2746/350	7" 3930/250	5" 4086/75	(7/2/46) (10/9/53)	5" 3589/3775 489/499	(7/10/46) (3/5/54)	
Grimes, W.D. Nov 16'34 Hobbs	4-A	33-18-38	13" 285/200	9" 2739/350	7" 3970/150	5" Liner 3919/4175	2/14/56		5/21/56	
Grimes, W.D.COct. 16'35 Hobbs	2-N	21-18-38	13" 281/225		7" 4109/1300	5" 250w/4% 0/4224	12/28/54	7" 425/1687	1/4/55	
[redacted]rimes, W.D. A Apr. 18'30 Hobbs	1-D	32-18-38	15" 200	9" 3000	6" 4200		12/28/53	6" 1049/1080	4/12/54	
[redacted]mes, W.D. A June 13'30 Hobbs	2-F	32-18-38	15" 200 N. A.	9" 3000 N.A.	6" 4200 N.A.		5/24/53	7" Sur. Nipple	7/4/53	Replaced Surface Connections
Grimes, W.D. Feb 16'31 Hobbs	7-C	32-18-38	13" 220 N.A.	9" 2750 N.A.	7" 3950 N.A.		6/21/54	7" above 1208	6/28/54	
Grimes, W.D. July 1'34 Hobbs	8-E	32-18-38	15" 238/200	9" 2757/350	7" 3954/200		4/2/54	7" 1725/1935	4/10/54	
Grimes, W.D. Sept 16'34 Hobbs	9-L	32-18-38	13" 212/200	9" 2740/350	7" 3966/150		10/8/53	7 x 9"	5/15/54	
HUMBLE OIL & RFG. CO.										
Fed. Bowers A Oct 1'30 Hobbs	8-O	30-18-38	12" 220/210	9" 2738/650	7" 3974/300		2/27/46	7" @ 60'	3/14/46	
" " " " "	8-O	30-18-38					9/ /47		10/10/47	
Fed. Bowers A Sept 1'30 Hobbs	5-I	30-18-38	12" 210/200	9" 2739/650	7" 3963/300	5" 3905	Aug.28'47	7" @ ?	9/15/47	

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR LEASE - DATE COMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface Cement	Intermediate	Production	Liner Patch Liner Full String	Leak Found	String and Depth of Leak	Repaired Date	Remarks
HUMBLE OIL & RFG. (Continued)										
Fed. Bowers A Aug 28'30 Hobbs	4-P	30-18-38	12" 204/200	9" 2750/650	7" 3960/300		10/2/47	7" @ ?	10/24/47	
Fed. Bowers A Aug 12'30 Hobbs	2-J	30-18-38	12" 242/225	9" 2750/650	7" 3960/300	5" 4208	8/7/47	7" @ ? Temp Anoms.		
" "	"	"					8/2/53	18" 216 & 3676		
Fed. Bowers A Aug28'30 Hobbs	3-M	29-18-38	12" 203/200	9" 2736/650	7" 3960/300	5" 3940 circ	8/7/47	7" numerous holes	9/29/47	
MAGNOLIA PET. CO.										
Berry Nov 18'30 Hobbs	1-K	31-18-38	13" 245 N.A.	9" 2800 N.A.	7" 3955 N.A.	5" Liner 3847/4190	9/6/56		11/11/56	
OHIO OIL CO.										
State 30 Oct 3'30 Hobbs	3-L	30-18-38	12" 243/225	9" 2751/550	7" 3900/350		1/30/57		3/8/57	
State 32 Aug 14'30 Hobbs	3-I	32-18-38	12" 205/225	9" 2750/475	7" 3968/350	5" 4244/65sx	6/29/54	7" 266/1567/1200 & 1567	9/3/54	
State 32 Oct 5'30 Hobbs	5-O	32-18-38	16" 221/250	9" 2750/556	7" 3925/225	5" 4235	7/26/54	7" aprox. 1200	9/9/54	
PAN AMERICAN PET. CORP.										
Byers NE-4 Mar 1'33 Hobbs	26-H	4/19/38	16" 199/85	10" 1570/75	8" 3961/150	5" 4205/675	3/8/47	8" @ 3140	3/8/47	
Byers NE-4 Aug 13'30 Hobbs	33-G	4/19/38	16" 152/360	10" 1523/75	8" 3250/60	6" 3952/50	9/24/53	6" 1865	6/1/55	
"	"	"					3/8/55	7" @ 1500	3/7/55	
H.D.McKinley NW-5 Oct. 20'30 Hobbs	1-C	5-19-38	16" 162/55	10" 2749/300	6" 3920/150		6/18/57			
McKinley Oct 7'30 Hobbs	6-D	5-19-38	16" 185/75	10" 2782/350	6" 3977/150		9/10/53		3/17/54	
McKinley Dec 9'30 Hobbs	26-F	5-19-38	13" 212/150	9" 2780/300	6" 3950/150		10/13/53?		12/2/54	
McKinley Jan 1'45 Hobbs	29-E	5-19-38	13" 210/200	9" 2780/500	7" 3999/300		10/17/53	7" 2095/2126	11/3/54	
State A "5" May 16'33 Hobbs	8-B	9-19-38	16" 217/100	10" 2810/450	7" 3993/100		6/20/57			

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR LEASE - DATE DOMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface	Intermediate	Production	Liner Patch Liner Full String	Leak Found	String and Depth of Leak	Repaired Date	Remarks
PAN AMERICAN PET. CORP (Cont)										
State A-7 Aug 16'30 Hobbs	3-D	10-19-38	16" 158/50	10" 1543/75	8" 4016/40		9/28/53	8" 0/227	11/2/54	
Terry 1 Sept 1'32 Hobbs	11-I	9-19-38	16" 196/100	10" 1593/75	8" 4031/150	DV 3874/450 5" 4196/100	9/28/53	8" 1224	11/2/54	
Terry 2 June 1'32 Hobbs	8-L	10/19/38	16" 204/125	10" 1597/75	8" 4034/150	5" 4175/100 DV 3839/450				
						8#	11/11/53	8" 1182/1160	10/17/54	
State B Sept 15'30 Hobbs	2-F	33-18-38	12" @ 200	9" 2800	7" 4012	5" 4242/100	9/28/53	7"	4/7/54	
State A Tr 10 Dec 16'31 Hobbs	26-P	33-18-38	16" 209/125	10" 2752/400	8" 3946/140	5" 4220/300	8/26/46	8"No leak found	8/12/46	
State A Tr 3 Nov 30'30 Hobbs	26-N	4-19-38	16" 193/50	10" 3275/650	8" 3983/100	5" 4190/83	6/13/47	8" @ 1043	7/14/47	Liner 3939/4190
State A Tr 1 Feb 16'32 Hobbs	11-C	4-19-38	16" 201/125	10" 2754/400	8" 3976/150	5" 4212/75	6/30/48	8" @ 838	8/24/48	Liner 3900/4212
B. H. Turner Tr 1 Sept 1'34 Hobbs	8-D	34-18-38	16" 223/90	10" 1646/350	7" 3976/150	5" 3872/50	2/17/48	7" 815/1180	3/4/48	Liner 3872/4221
SANEDAN OIL CO.										
State B Oct 11'35 Hobbs	1-F	25-18-37	12" 205/175		7" 4039/500				8/12/54	No record in well file.
State C June 21'34 Hobbs	2-K	24-18-37	12" 212/150	9" 2823/200	7" 3983/150	5" 3917 4171/50	1/2/51	7" @ 2163	1/8/51	
SHELL OIL COMPANY (Cost to add packers & Sweet Oil in annulus to Flowing wells in Hobbs Pool $30,000(1953 & 1946)										
Rice Sept 4,'32 Hobbs	1-P	13-18-37	12" 228/200	9" 2786/600	7" 3922/250		2/14/57	7" 1500 p.s.i for 30 min.NF.	5/27/57	
Rice Dec. 14'35 Hobbs	3-I	13-18-37	12" 264/200	9" 1591/600	7" 3960/160		8/4/54	7" above 400	9/3/54	
State B June 12'34 Hobbs	2-C	33-18-38	12" 296/150	9" 2760/150	7" 3930/250	5" 3884/250	9/28/53	7" 526/557	11/16/53	

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR LEASE - DATE COMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface	 Intermediate	 Production	Liner Patch Liner Full String	Leak Found	String and Depth of Leak	Repaired Date	Remarks
SHELL OIL CO. (Continued)										
State F Dec 10'41 Bowers	1-A	23-18-37	8" 1592/525		4" 4099/130		3/?/57	4" 3300/2575	6/5/57	
Sanger Inv. Co. Jun 15'35 Hobbs	3-J	27-18-38	12" 257/155	9" 1645/200	7" 4075/250		9/28/53	7" 2800		
Sanger Inv. Co. Feb. 1'35 Hobbs	2-N	27-18-38	12" 233/700	9" 1648/350	7" 4060/250				6/6/57	
SKELLY OIL CO.										
Fowler Hobbs	2-F	31-18-38	12" 208/300	9" 2796/400	7" 3964/450	5" 4211/325	12/5/55	No Leak 7"	12/11/55	
Fowler Hobbs	1-C	31-18-38	12" 266/185	9" 2750/400	7" 3973/450	5" 4215	8/28/53	7" No leak	5/26/54	
SOUTHERN PET. EXPL CO. INC.										
Morris A Mar 1'36 Hobbs	1-O	21-18-38	12" 252/200		7" 4066/468	5" 0-572	4/23/57 7/?/57			
Morris B Nov 28 '37 Hobbs	1-P	21-18-38	10" 259/175		7" 4097/400	4" 4072/400 4%	7/10/56		7/20/56	
STANDARD OF TEXAS										
T/A State Sept 17'30 Bowers	2-O	29-18-38	13" 242/150	9" 2822/725	7" 3951/300		3/27/57		5/10/57	
SUN OIL COMPANY										
McKinley Aug 15'30 Hobbs	1-A	5-19-38	12" 192/190	9" 2746/500	7" 3984/225	5" 4180 NA.	3/26/54	7" ?	5/4/54	
McKinley Aug 13'30 Hobbs	2-H	5-19-38	12" 200 NA	9" 2900 NA	7" 4000 NA	5" 4168/50	9/28/53	7" 1226/1650	4/26/54	
McKinley Aug 19'30 Hobbs	3-B	5-19-38	12" 200 NA	9" 2900 NA	7" 4000 NA	5" 4175 NA	9/28/53	7" 1877/1882	4/2/54	
McKinley Oct 16'30 Hobbs	4-G	5-19-38	12" 2000NA	9" 2900 NA	7" 4000 NA	5" 4200/65	9/9/53	7" 77/3790	4/2/54	Bad Collars
SUNRAY MID-CONTINENT OIL CO.										
Fowler Nov 12'30 Hobbs	1-D	31-18-38	13" 300	9" 2750/600	7" 3950/425		9/30/53	7" 3100	10/21/53	

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR LEASE - DATE COMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface Cement	 Intermediate	 Production	Liner Patch Liner Full String	Leak Found	String and Depth of Leak	Repaired Date	Remarks
TEXAS PACIFIC COAL & OIL CO.										
State G July 2'30 Hobbs	1-P	24-18-37	20" 105/125	12" 1521/300	9" 2815/700	7" 3880/200	9/30/53	7" 2350	3/15/57	
State G Nov 7'30 Hobbs	3-J	24-18-37	12" 215/200	9" 2810/400	7" 3878/300		No Leak just remedial		7/9/56	
TIDEWATER OIL CO.										
Bome Hardin Nov 6'30 Hobbs	3-B	19-18-38	12" 217/200	9" 2750/600	7" 3952/300		12/18/42	7" x 9"	2/23/43	
Grimes Oct 4'30 Hobbs	3-I	29-18-38	15" 228/200	9" 2715/600	7" 3900/300	5" 3691 4233/120	10/18/46	7" 368/403	11/1/46	
Grimes (P&A) Sept 15'30 Bowers	2-H	29-18-38	15" 230/200	9" 2718/600	7" 3880/300	5" 3350/100	9/25/46	7" Bad Conditions	9/27/46	

Memo No. 20-57

NEW MEXICO
OIL CONSERVATION COMMISSION
P. O. BOX 871
Santa Fe, New Mexico

MEMORANDUM:

TO: All Operators in the Hobbs, Bowers, and Byers-Queen Pools.

FROM: A. L. Porter, Jr., Secretary-Director

SUBJECT: Protection of Fresh Water Resources.

The Oil Conservation Commission has received a letter from the City Commission of Hobbs, New Mexico, expressing concern over the danger of contamination of the Hobbs municipal water supply as a result of leakage from oil and gas wells in the area.

The City Commission requested this office to call a meeting of all operators in the Hobbs, Bowers, and Byers-Queen Pools for the purpose of determining the most feasible method of protecting the fresh water from contamination.

All operators in the above-named pools are therefore directed to appear at the Office of the Oil Conservation Commission in Hobbs, New Mexico at 10:00 o'clock a.m. on July 9, 1957. Each operator should have at least one representative present who is authorized to speak the policy of his company. Members of the field offices who are familiar with the problem should also be present.

A representative of the State Engineer's Office as well as the members of the Oil Conservation Commission expect to attend the meeting.

All inquiries concerning the meeting should be directed to the Oil Conservation Commission Office in Santa Fe, New Mexico.

June 21, 1957
ir/

2045

June 10, 1957

Mr. A. L. Porter
State Geologist
Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

The City Commission at their regular meeting on June 17, 1957, was advised that leakage from oil and gas wells in the Hobbs area was contaminating the water supply of the City of Hobbs, due either to leakage from the producing wells or from prior contamination.

You will recall that in 1954 the City of Hobbs by Resolution Number 636, requested the Oil Conservation Commission to effectuate orders requiring the cessation of oil and gas leakage. Such action was taken by the Oil Conservation Commission and after diligent efforts on the part of the Commission and the oil operators, all wells were tested and repaired.

By reason of this, it is uncertain whether the present contamination is the result of prior leakage, which now remains in the water bearing strata.

The contamination, unless corrected by migration, will ultimately pollute and destroy the water resources of the City of Hobbs and surrounding area.

The City at this time does not have a scientifically correct answer or solution to the problem, and therefore, requests

that the Oil Conservation Commission call a meeting to include the Commission, State Engineer, the oil operators of the Hobbs Pool and all other interested parties for the purpose of determining the most feasible method of eliminating this contamination, to be held at the Oil Conservation Commission Office in the City of Hobbs at your earliest convenience.

The City of Hobbs sincerely appreciates your present interest, and your efforts in the past.

Very truly yours,

Donald D. Hallam
City Attorney

DDH/gg
cc: Mr. Neal Harry
City Manager

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

July 16, 1957

COPY

Mr. A. L. Porter, Jr., Director
Oil Conservation Commission
Box 871
Santa Fe, New Mex.

Dear Mr. Porter:

Enclosed you will find a report on the meeting held in Hobbs, New Mexico on July 9, 1957 to consider the protection of fresh water resources.

Yours very truly,

OIL CONSERVATION COMMISSION

R. F. Montgomery
Proration Manager

mc
encl.

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

THE OIL CONSERVATION COMMISSION MEETING OF JULY 9, 1957

Notice of the meeting was given by MEMORANDUM 20-57 from Mr. A. L. Porter, Jr., Secretary-Director, dated June 21, 1957. The subject of the Memorandum was "Protection of Fresh Water Resources" and directed to all operators in the Hobbs Pool Area. The meeting was called for 10:00 O'Clock A. M. On July 9, 1957 at the Hobbs Office of the OCC. The Memorandum pointed out that the meeting was called at the request of the Hobbs City Commission.

The meeting was called to order by the Director who gave a resume' of the reason for calling the meeting which pertained to the fresh water contamination northwest of the Hobbs City limits. Shortly after opening the meeting a field trip to inspect the contaminated areas was conducted by Mr. E. J. Fischer, OCC District Engineer. The first stop was at the Dowell plant north of the city. A lighted match was held over a water hose, and when the valve was opened small spurts of gas would burn intermittently. The second stop was made on the Ellison property. A demonstration was made by Mr. Eric Engbrecht, OCC Oil & Gas Inspector, which indicated that the water well had 19.1 feet of fluid including 6.3 feet of 34 gravity oil. This water well is located 1250 feet from the east line and 2380 feet from the north line of Section 30, T-18-S, R-38-E. Stop No. 3 was a disposal pit of Humble Oil and Refining Co. and Stop No. 4 was the Phillips Lake where gas bubbles appeared sporadically on the surface of the water. When the bubble burst a rainbow of oil was observed. This was the last stop of the field trip and the meeting was adjourned until 1:15 P. M.

At 1:15 P. M. the meeting was called to order by Mr. Porter in the Little Theatre of the Hobbs High School, at which time Mr. Porter called on the writer to briefly outline the pollution problem for the benefit of those who were not present at the morning session. This was done. Also it was pointed out that the Commission had been aware of the problem for several years, and that it had diligently discharged its duty to see that all necessary repairs were made by the operators.

The fact that casing leaks did exist was first brought to the attention of the Oil Commission by letter from the Humble Oil and Refining Co. on August 12, 1953. The Director of the OCC called a meeting of Hobbs Pool operators on August 25, 1953, and issued a directive that tests for casing leaks be performed before October 1, 1953. To insure that the operators had found all leaks a second directive was written on March 12, 1954. This direcitve called for a Commission representative to witness tests on Hobbs Pool area wells.

On March 15, 1954 at a special meeting of the City Council Resolution No. 686 was adopted; this resolution declared that an emergency existed due to casing leaks in wells and requested the Oil Commission to take appropriate action to rectify this condition. As indicated above the Commission had already taken action to rectify this condition.

In August of 1956 a meeting was held by the OCC, at which meeting it was brought to the attention of operators that water contamination existed in Section 30 of T-18-S, R-38-E. Mr. Porter, Director, and Mr. Walker, Commission member, informed the operators that check for casing leaks must continue and that leaking casing would not be tolerated. Mr. Porter directed that a four section block surrounding the contaminated area be rechecked immediately and that a recheck of all

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

Hobbs area wells be made in the near future. Both orders have been complied with.

During the testing of the Hobbs Pool area from August 1953 to 1957 a total of 52 wells were found to have had leaks. These leaks have been repaired at a known cost of some 400,000 dollars.

After the above summary by this writer Mr. Porter called on the operators for an expression of their views on the matter.

Mr. A. R. Ballou representing the Sun Oil Company suggested that the problem be studied to determine the feasibility of pumping the offending oil from the fresh water aquifer, and pledged this company's cooperation toward solving the problem.

Lloyd A. Calhoun, member of the Hobbs City Water Board, addressed the chair to make a statement. He stated that the Hobbs Water Board had been keenly aware of the possibilities of contamination of the city aquifer for over 3 years, and had taken steps to provide an adequate and contamination-free water supply for at least the next 20 years. At the Water Board meeting of May 10, 1954 the subject of oil and gas infiltration into the water system was discussed. He further mentioned that a member of the OCC staff had met with the Water Board and City Commission and described the program being then carried out by the OCC.

About the middle of 1954 a majority of the Hobbs Water Board members went to Santa Fe and conferred with Mr. Bliss, State Engineer, and Mr. Irby, Assistant. Both officials were informed of the contamination. These officials were very positive in their assurances that the City wells were not in any immediate danger of contamination. They pointed out that on the basis of exhaustive engineering studies it had been determined that the lateral movement of the water in the Ogallala reservoir was about 2½ feet per year. At this time the Water Board made application and received water rights north of the Hobbs Oil Pool for an amount sufficient to support a population of 80,000 within 20 years.

Calhoun stressed his abhorrence to the type of scare headline publicity which had been given by the local newspaper and the wire services. He emphatically assured all of the Oil Company representatives and the OCC that the Hobbs City water system was not in jeopardy, and made a motion that the Hobbs City Council withdraw from the matter.

At this point Mr. Porter called on the City Council for a statement. There were no statements heard from this body.

Mr. Irby of the State Engineer's office stated that he disliked the publicity given, and had no solution for the problem and felt that the OCC and operators were capable of handling the situation.

Mr. C. F. Taylor representing Gulf Oil Corp. read a prepared statement that pledged their fullest cooperation and would take every reasonable precaution to prevent leaks.

Mr. H. E. Meadows speaking for Humble Oil and Refining Co. stated that their wells were not contaminating the fresh water aquifer, also that they would continue to observe their wells for leaks and cooperate.

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

Mr. J. W. Brown spoke for Pan American Petroleum Corp. and gave a brief summary of the manner in which they were combating corrosion and pledged to continue their observations for leaks.

Mr. Glenn Staley, New Mexico Oil and Gas Engineering Committee, stated that the first casing leaks came to their attention in 1934. The wells in the area were immediately repaired. He further said that the casing would continue to be corroded but that the operators have always been cooperative in repairing leaks.

Sinclair Oil and Gas Company stated that they recognized the problem and would continue their cooperation.

Ohio Oil Co. stated that all of their leaks had been repaired and would continue to cooperate. Shell Oil Co., Continental Oil Co., Gackle Drlg. Co., Skelly Oil Co. and Amerada Pet. Corp. all made similar statements.

Mr. Porter called on Mr. Don Hallam, Hobbs City Attorney, for a statement since Mr. Calhoun had put his request that the City withdraw in the form of a motion. Mr. Hallam said that the City's position was still as that stated in his letter to Mr. Porter of June 19, 1957 and the City would not withdraw.

At this point Mr. Porter appointed the following Committee to make a study of fresh water contamination in the Hobbs area and make recommendations as to:

(1) Any action that may be taken by the Commission in addition to what is presently being done to prevent further contamination

(2) Any corrective measures that may be employed to prevent further spread of present contamination

Pan American Pet. Corp., Chairman
Samedan Oil Corp.
Shell Oil Co.
Tidewater Oil Co.
Continental Oil Co.
City Water Board
State Engineer
Hobbs OCC Office

A progress report was requested within 30 days.

The meeting was adjourned.

RFM/mc

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

July 16, 1957

Mr. A. L. Porter, Jr., Director
Oil Conservation Commission
Box 871
Santa Fe, New Mex.

Dear Mr. Porter:

Enclosed you will find a report on the meeting held in Hobbs, New Mexico on July 9, 1957 to consider the protection of fresh water resources.

Yours very truly,

OIL CONSERVATION COMMISSION

R. F. Montgomery
Proration Manager

mc
encl.

COPY

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

THE OIL CONSERVATION COMMISSION MEETING OF JULY 9, 1957

Notice of the meeting was given by MEMORANDUM 20-57 from Mr. A. L. Porter, Jr., Secretary-Director, dated June 21, 1957. The subject of the Memorandum was "Protection of Fresh Water Resources" and directed to all operators in the Hobbs Pool Area. The meeting was called for 10:00 O'Clock A. M. On July 9, 1957 at the Hobbs Office of the OCC. The Memorandum pointed out that the meeting was called at the request of the Hobbs City Commission.

The meeting was called to order by the Director who gave a resume' of the reason for calling the meeting which pertained to the fresh water contamination northwest of the Hobbs City limits. Shortly after opening the meeting a field trip to inspect the contaminated areas was conducted by Mr. E. J. Fischer, OCC District Engineer. The first stop was at the Dowell plant north of the city. A lighted match was held over a water hose, and when the valve was opened small spurts of gas would burn intermittently. The second stop was made on the Ellison property. A demonstration was made by Mr. Eric Engbrecht, OCC Oil & Gas Inspector, which indicated that the water well had 19.1 feet of fluid including 6.3 feet of 34 gravity oil. This water well is located 1250 feet from the east line and 2380 feet from the north line of Section 30, T-18-S, R-38-E. Stop No. 3 was a disposal pit of Humble Oil and Refining Co. and Stop No. 4 was the Phillips Lake where gas bubbles appeared sporadically on the surface of the water. When the bubble burst a rainbow of oil was observed. This was the last stop of the field trip and the meeting was adjourned until 1:15 P. M.

At 1:15 P. M. the meeting was called to order by Mr. Porter in the Little Theatre of the Hobbs High School, at which time Mr. Porter called on the writer to briefly outline the pollution problem for the benefit of those who were not present at the morning session. This was done. Also it was pointed out that the Commission had been aware of the problem for several years, and that it had diligently discharged its duty to see that all necessary repairs were made by the operators.

The fact that casing leaks did exist was first brought to the attention of the Oil Commission by letter from the Humble Oil and Refining Co. on August 12, 1953. The Director of the OCC called a meeting of Hobbs Pool operators on August 25, 1953, and issued a directive that tests for casing leaks be performed before October 1, 1953. To insure that the operators had found all leaks a second directive was written on March 12, 1954. This direcitve called for a Commission representative to witness tests on Hobbs Pool area wells.

On March 15, 1954 at a special meeting of the City Council Resolution No. 686 was adopted; this resolution declared that an emergency existed due to casing leaks in wells and requested the Oil Commission to take appropriate action to rectify this condition. As indicated above the Commission had already taken action to rectify this condition.

In August of 1956 a meeting was held by the OCC, at which meeting it was brought to the attention of operators that water contamination existed in Section 30 of T-18-S, R-38-E. Mr. Porter, Director, and Mr. Walker, Commission member, informed the operators that check for casing leaks must continue and that leaking casing would not be tolerated. Mr. Porter directed that a four section block surrounding the contaminated area be rechecked immediately and that a recheck of all

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

Hobbs area wells be made in the near future. Both orders have been complied with.

During the testing of the Hobbs Pool area from August 1953 to 1957 a total of 52 wells were found to have had leaks. These leaks have been repaired at a known cost of some 400,000 dollars.

After the above summary by this writer Mr. Porter called on the operators for an expression of their views on the matter.

Mr. A. R. Ballou representing the Sun Oil Company suggested that the problem be studied to determine the feasibility of pumping the offending oil from the fresh water aquifer, and pledged this company's cooperation toward solving the problem.

Lloyd A. Calhoun, member of the Hobbs City Water Board, addressed the chair to make a statement. He stated that the Hobbs Water Board had been keenly aware of the possibilities of contamination of the city aquifer for over 3 years, and had taken steps to provide an adequate and contamination-free water supply for at least the next 20 years. At the Water Board meeting of May 10, 1954 the subject of oil and gas infiltration into the water system was discussed. He further mentioned that a member of the OCC staff had met with the Water Board and City Commission and described the program being then carried out by the OCC.

About the middle of 1954 a majority of the Hobbs Water Board members went to Santa Fe and conferred with Mr. Bliss, State Engineer, and Mr. Irby, Assistant. Both officials were informed of the contamination. These officials were very positive in their assurances that the City wells were not in any immediate danger of contamination. They pointed out that on the basis of exhaustive engineering studies it had been determined that the lateral movement of the water in the Ogallala reservoir was about 2½ feet per year. At this time the Water Board made application and received water rights north of the Hobbs Oil Pool for an amount sufficient to support a population of 80,000 within 20 years.

Calhoun stressed his abhorrence to the type of scare headline publicity which had been given by the local newspaper and the wire services. He emphatically assured all of the Oil Company representatives and the OCC that the Hobbs City water system was not in jeopardy, and made a motion that the Hobbs City Council withdraw from the matter.

At this point Mr. Porter called on the City Council for a statement. There were no statements heard from this body.

Mr. Irby of the State Engineer's office stated that he disliked the publicity given, and had no solution for the problem and felt that the OCC and operators were capable of handling the situation.

Mr. C. F. Taylor representing Gulf Oil Corp. read a prepared statement that pledged their fullest cooperation and would take every reasonable precaution to prevent leaks.

Mr. H. E. Meadows speaking for Humble Oil and Refining Co. stated that their wells were not contaminating the fresh water aquifer, also that they would continue to observe their wells for leaks and cooperate.

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

Mr. J. W. Brown spoke for Pan American Petroleum Corp. and gave a brief summary of the manner in which they were combating corrosion and pledged to continue their observations for leaks.

Mr. Glenn Staley, New Mexico Oil and Gas Engineering Committee, stated that the first casing leaks came to their attention in 1934. The wells in the area were immediately repaired. He further said that the casing would continue to be corroded but that the operators have always been cooperative in repairing leaks.

Sinclair Oil and Gas Company stated that they recognized the problem and would continue their cooperation.

Ohio Oil Co. stated that all of their leaks had been repaired and would continue to cooperate. Shell Oil Co., Continental Oil Co., Gackle Drlg. Co., Skelly Oil Co. and Amerada Pet. Corp. all made similar statements.

Mr. Porter called on Mr. Don Hallam, Hobbs City Attorney, for a statement since Mr. Calhoun had put his request that the City withdraw in the form of a motion. Mr. Hallam said that the City's position was still as that stated in his letter to Mr. Porter of June 19, 1957 and the City would not withdraw.

At this point Mr. Porter appointed the following Committee to make a study of fresh water contamination in the Hobbs area and make recommendations as to:

(1) Any action that may be taken by the Commission in addition to what is presently being done to prevent further contamination

(2) Any corrective measures that may be employed to prevent further spread of present contamination

Pan American Pet. Corp., Chairman
Samedan Oil Corp.
Shell Oil Co.
Tidewater Oil Co.
Continental Oil Co.
City Water Board
State Engineer
Hobbs OCC Office

A progress report was requested within 30 days.

The meeting was adjourned.

RFM/mc

NAME	COMPANY OR AGENCY	ADDRESS
Warren W. Mankin	N M O C C	Santa Fe, N.M.
R.F. Montgomery	N M O C C	Box 2045 - Hobbs, N.M.
J.W. Runyan	N M O C C	Box 2045 - Hobbs, N.M.
Dan Nutter	N M O C C	Santa Fe, N.M.
W.J. Cooley	N M O C C	Santa Fe, N.M.
C.M. Rieder	Self	Hobbs, N.M.
F.D. Engholm	Self	Albuquerque, N.M.
Eric Engbrecht	N M O C C	Box 2045 - Hobbs, N.M.
W.L. Crothers	Humble	Box 1600 - Midland, Texas
Henry E. Meadows	Humble	Box 1600 - Midland, Texas
H. McCarty	Humble	Box 2347 - Hobbs, N.M.
B.K. Bevill	Humble	Box 2347 - Hobbs, N.M.
R.G. Tonkin	Humble	Box 2347 - Hobbs, N.M.
Zane Spiegel	State Engineer's Office	Santa Fe, N.M.
W.P. Yost	The Texas Co.	Hobbs, N.M.
H.N. Wade	The Texas Co.	Box 1720 - Ft. Worth, Texas
C.F. Taylor	Gulf Oil Corp.	Box 2167 - Hobbs, N.M.
W.V. Kastler	Gulf Oil Corp.	Box 669 - Roswell, N.M.
O.K. Gilbreth, Jr.	Gulf Oil Corp.	Box 962 - Roswell, N.M.
W.R. Eddington	Gulf Oil Corp.	Hobbs, N.M.
C.M. Dumpass	Gulf Oil Corp.	Hobbs, N.M.
Elvis Utz	N M O C C	Santa Fe, N.M.
J.A. Moore	Continental Oil Co.	Roswell, N.M.
E.V. Boynton	Continental Oil Co.	Box 427 - Hobbs, N.M.
F.T. Elliott	Continental Oil Co.	Box 427 - Hobbs, N.M.
R.L. Adams	Continental Oil Co.	Roswell, N.M.

A.N. Ballou	Sun Oil Co.	Box 2880 - Dallas, Texas
Joseph O. Walton	Self	Hobbs, N.M.
Mrs. A.A. Kemnitz	City Commission	Hobbs, N.M.
Hugh Smith	Phillips Petroleum Co.	Box 758 - Hobbs, N.M.
J.D. Hamilton	Standard Oil Co. of Texas	Box 397 - Hobbs, N.M.
Richard Lee Doak	Standard of Texas	Bin B - Royalty, Texas
G.L. Staley	N.M. Oil & Gas Eng.	Hobbs, N.M.
D.C. Cappa	Amerada Pet. Corp.	Drawer D - Monument, N.M.
J.E. Wooton	T. P. Coal & Oil Co.	Box 2037 - Midland, Texas
J.W. Brown	Pan American Petroleum Corp.	Box 899 - Roswell, N.M.
M.C. McPhail	Pan American Petroleum Corp.	Hobbs, N.M.
Ralph L. Hendrickson	Pan American Petroleum Corp.	Hobbs, N.M.
R.B. Elkins	Shell Oil Co.	Box 1957 - Hobbs, N.M.
J.W. Montgomery	Shell Oil Co.	Box 1957 - Hobbs, N.M.
Fred C. Baker	City of Hobbs Engr.	City Hall - Hobbs, N.M.
Kent M. Moxey	N.M. Oil & Gas Assn.	Box 1291 - Roswell, N.M.
R.E. Layhe	Samedan Oil Corp.	Box 2137 - Hobbs, N.M.
C.W. Putnam	Samedan Oil Corp.	Box 2137 - Hobbs, N.M.
R.E. Powers	Sinclair Oil & Gas Co.	Box 1470 - Midland, Texas
C.C. Salter	Sinclair Oil & Gas Co.	520 E. Broadway - Hobbs, N.M.
K.J. Bernard	Sinclair Oil & Gas Co.	520 E. Broadway - Hobbs, N.M.
H.P. Shackelford	Tidewater Oil Co.	Box 547 - Hobbs, N.M.
S.E. Cavanaugh	Tidewater Oil Co.	Los Angeles, Calif.
Jack D. Jones	Tidewater Oil Co.	Box 731 - Tulsa, Okla
Robert N. Miller	Tidewater Oil Co.	Box 547 - Hobbs, N.M.
H.G. Weberry	Tidewater Oil Co.	Box 1231 - Midland, Texas
C.M. Neal	Tidewater & Getty Oil	Hobbs, N.M.

Tom W. Neal	Citizen	Hobbs, N.M.
D.H. Trahan	Shell Oil Co.	Hobbs, N.M.
Rex C. Cabaniss	Shell Oil Co.	Hobbs, N.M.
W.E. Owen	Shell Oil Co.	Hobbs, N.M.
J.A. Lore	Shell Oil Co.	Midland, Texas
T.O. Webb	Ohio Oil Co.	Hobbs, N.M.
E.B. Steward	Ohio Oil Co.	Midland, Texas
D.N. Kitley	Ohio Oil Co.	Midland, Texas
D.L. Province	Ohio Oil Co.	Hobbs, N.M.
Lloyd A. Calhoun	Board of Water Comm.	City Hall - Hobbs, N.M.
Paul S. Johnston	Cackle Oil Co.	Hobbs, N.M.
Randall L. Thompson	Hobbs Water Board	Hobbs, N.M.
C.W. Jobe	Hobbs Water Board	Hobbs, N.M.
M.H. Alexander	Water Dept.	Hobbs, N.M.
Frank E. Irby.	State Engineer's Office	Santa Fe, N.M.
Fred H. Hennighausen	State Engineer's Office	Roswell, N.M.
James Wright	State Engineer's Office	Roswell, N.M.
Reed W. Mower	U.S.G.S. - Ground Water Board	Roswell, N.M.
J.D. Ramey	Skelly Oil Co.	Hobbs, N.M.
J.N. Dunlavey	Skelly Oil Co.	Hobbs, N.M.
R.J. Christensen	Magnolia Petroleum Co.	Hobbs, N.M.
Burtow Veteto	Morris R. Antweil	Hobbs, N.M.
W.C. Abbott	Hobbs Water Board	Hobbs, N.M.
E.F. Hotter	Cities Service Oil Co.	Hobbs, N.M.
D.J. Van Orden	Sunray Mid-Continent Oil Co.	Midland, Texas
C.T. McClanahan	Sunray Mid-Continent Oil Co.	Hobbs, N.M.
D.E. Hull	Sunray Mid-Continent Oil Co.	Midland, Texas

Roy T. Rains	Halliburton	Hobbs, N.M.
Allen D. Jarred	Halliburton	Lubbock, Texas
Vic Jameson	Hobbs Daily News-Sun	Hobbs, N.M.
W.H. Vaughan	Walker Oil Corp.	Hobbs, N.M.
E.J. Fischer	N M O C C	Hobbs, N.M.
W.E. Smith	N M O C C	Hobbs, N.M.
Mr. & Mrs. W.H. Ellison	Citizen	Hobbs, N.M.
W.D. Girand	Attorney	Hobbs, N.M.

FORM A 201

HUMBLE OIL & REFINING COMPANY

~~HOUSTON 1, TEXAS~~

RECEIVED
AUG 5 1953
OIL CONSERVATION COMMISSION
HOBBS OFFICE

#64

P. O. Box 2347
Hobbs, New Mexico
August 5, 1953

New Mexico Oil Conservation Commission
P. O. Box 2045
Hobbs, New Mexico

Gentlemen:

Authority is requested to run approximately 3000 barrels of distress oil which is now flowing, uncontrolled, from the bradenhead on our Federal Bowers "A" A/C 1 Well #2, Unit J, Section 30, T-18-S, R-38-E, Hobbs Pool. This well is flowing into a pit at an estimated rate of 18 barrels per hour.

We are now moving in a workover rig to kill the well and work same over.

Humble Pipe Line Company is transporter of oil from this lease. Oil produced in excess of current allowable for this well will be charged against the future allowable.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

By R. M. Gillette
R. M. Gillette

RMG/jsp

cc: Mr. W. E. Hubbard
Mr. J. W. House

Not desirable to shut well in.

A-238 D50527 (3-53)

COPY

HUMBLE OIL & REFINING COMPANY

HOUSTON 1, TEXAS

P. O. Box 1600

August 12, 1953

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. R. R. Spurrier
Secretary & Director

Gentlemen:

On August 2, 1953, we discovered a leak in the cellar of Federal-Bowers "A" No. 2 located on our Federal Bowers lease in the Hobbs Field, Lea County, New Mexico. Flow into the cellar was estimated at one barrel per hour. The cellar was dug out and the annulus between 12-1/2-inch and 9-5/8-inch casing was found to be flowing oil through a 1/2-inch valve on the 12-1/2-inch bradenhead. Flow was estimated at 2.5 barrels per hour.

Federal Bowers A-2 was originally completed in September, 1930, in open hole from the 7-inch casing set at 3960 feet to 4213 feet. The well was re-entered in September, 1947, and holes were located in the 7-inch oil string at 490 and 875 feet. These holes were repaired by perforating the 7-inch oil string at 1500 feet and circulating cement to the surface between the 7-inch and 9-5/8-inch casing. The hole was deepened to 4238 feet and a string of 5-1/2-inch casing was run inside the 7-inch casing set on bottom and cemented with 30 sacks. The 5-1/2-inch casing was perforated from 4010 to 4205 feet. A Baker production packer was set at 3940 feet and the well returned to production. A well completion diagram is attached.

After the cellar was cleaned out, the 5-1/2-inch oil string was tested with 1000 pounds pressure and found to hold pressure satisfactorily. A similar test was also made on the annulus between the 5-1/2-inch and 7-inch casing. This annular space was tested with 1000 pounds and was found to hold pressure satisfactorily.

COPY

HUMBLE OIL & REFINING COMPANY

HOUSTON 1, TEXAS

On August 5, 1953, a total of 1685 barrels of water was pumped into the producing interval from 4010 to 4205 feet. Injection pressures ranged from 900 to 1600 pounds. The flow on the 1/2-inch valve on the 12-1/2-inch bradenhead had increased to 15.5 barrels of oil per hour. On August 6 after pumping an additional 455 barrels of water into the producing interval, the Baker production packer at 3940 feet was drilled out and a retainer set at 4000 feet. The 5-1/2-inch oil string was perforated at 3976 feet with four shots and a Baker P & T tool was set at 3916 feet. A total of 300 barrels of water was pumped through the perforations at 3976 feet in ten hours. The average injection pressure was 2100 pounds. A temperature survey, Delta log and potential survey were run. A bridge plug was set at 3795 feet and the 5-1/2-inch casing perforated from 3677 to 3678 feet with four shots. A total of 900 barrels of water was injected through perforations from 3677 to 3678 feet. Injection rates ranged from 16 to 60 barrels per hour and injection pressures from 2700 to 3800 pounds. As of August 8, 1953, the oil flow on the bradenhead had increased to 18.5 barrels per hour.

The results of these tests indicate that the oil flow on the 12-1/2-inch bradenhead of Humble Federal Bowers A-2 is not the direct result of a casing leak in Bowers A-2. Humble is now in the process of conducting temperature surveys in its other wells in the area in an effort to locate any possible casing leaks which might serve as a source for the oil flow noted in the bradenhead at Federal Bowers A-2. The characteristics of the oil being produced from the 12-1/2-inch bradenhead at Bowers A-2 indicate that the San Andres is the source of this oil. Humble has contacted offset operators and advised them of the situation at Bowers A-2.

We request that we be issued such tenders as are necessary, covering the oil produced from the bradenhead on this well during the period that it continues to flow; in the meanwhile, Humble will continue diligently its efforts to locate and control the source of the oil now being produced from the 12-1/2-inch bradenhead of the Federal Bowers A-2 well.

Yours very truly,

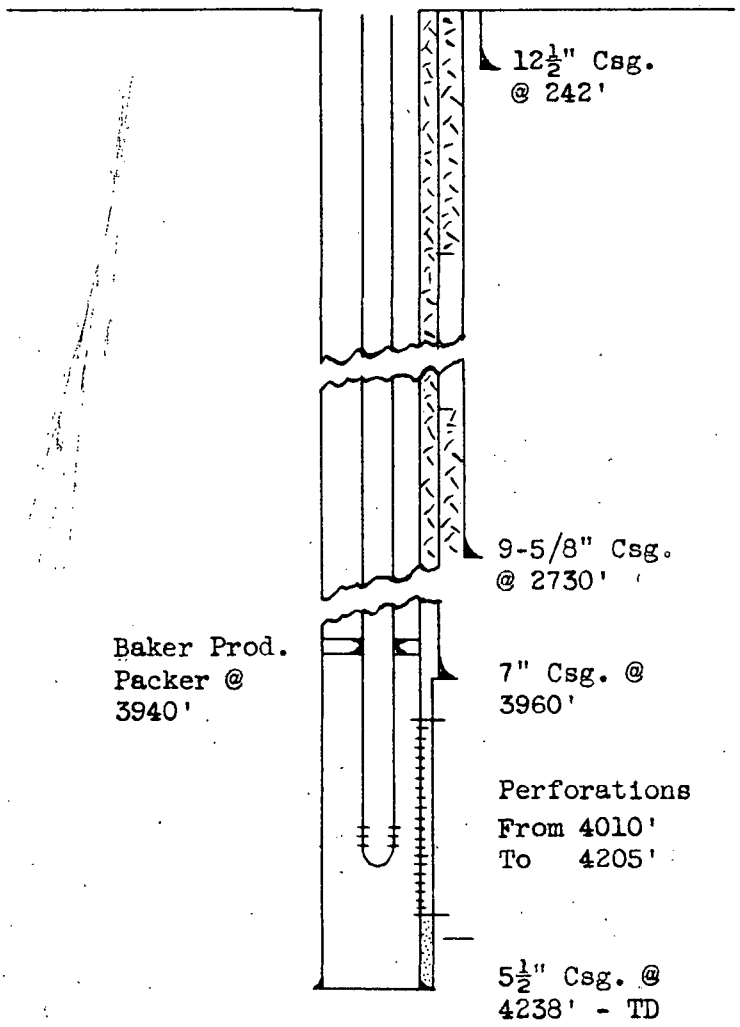
HUMBLE OIL & REFINING COMPANY

By_____
J. W. House

DES:WDM:ls
cc: Mr. A. L. Porter ✓
P. O. Box 2045
Hobbs, New Mexico

Mr. R. S. Dewey-Bldg.
Mr. M. M. Rogers-Hobbs

Well Completion Diagram
Federal Bowers A-2



1. Dewater + reinject
2. Leaks

July 26, 1957

COPY

Mr. A. L. Porter, Jr., Director
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

The first meeting of the committee that you appointed to study the fresh water pollution problem in the Hobbs area was held on July 19, 1957. A list of the committee members is enclosed for your information.

At this meeting Mr. E. G. Minton, Lea County Hydrologist, gave a brief talk on the general geology and hydrology of the area. Mr. Minton stated that from past studies the water moves at about 7 to 9 inches a day, however due to the Cone of Depression (covering about the area of the City Limits of Hobbs) it probably was moving at two to three times this rate. This Cone of Depression is some 25 feet deep and 5 to 6 miles in diameter causing the water to flow towards the center of Hobbs. When asked for suggestions from committee members he put forth the idea of dewatering the contaminated area and reinjecting the treated water. The difficulty of this type of project would be that water wells in the area would go dry. He made an estimate that if the entire saturated section was opened one well could probably produce 800 to 1,000 gals/min. Mr. Minton also stated that water wells had no casing or plug and abandonment requirements.

After Mr. Minton's talk, Mr. Jack Brown, Chairman, proposed methods of conducting the meetings and the following items were decided upon:

1. Conduct informally
2. Members notify alternates
3. Minimum of minutes
4. Quorum to be 5 members
5. Rule of majority
6. No action of member binding on his organization
7. No charges to committee
8. Only members and alternates attend meetings unless others invited

Mr. Zane Spiegel gave a long talk on the general hydrology of the Hobbs area. Mr. Jack Brown stated that subcommittees would be formed to study specific phases of the problem and the next meeting was called for 9:00 A.M. July 25th at the Hobbs OCC Office.

At the second meeting of this committee, July 25th, numerous items were discussed which took most of the day.

It was the concensus of the members that the area of contamination was small in extent, possibly 2 to 5 acres, and that if as much as 300,000 barrels had entered the fresh water aquifer that due to the fact that the oil would ride on top of the water it would be filtered out within one mile. This is not a final answer but to determine in some manner what we were looking at, 300,000 barrels was assumed to be in the aquifer. Due to the dry water sands in the upper portions of the aquifer within one mile distance it would filter out if it was riding on top of the water.

However the committee is going ahead with its studies. The OCC Hobbs Office has been requested to furnish the committee with information on all remedial work completed and other pertinent information.

A subcommittee was formed, Tidewater Chairman, to investigate the feasibility of the committee recommending the manner in which future water wells should be completed. The following organizations were appointed to this subcommittee:

City Water Board
Samedan Oil Co.
State Engineer

A second subcommittee was formed, Hobbs OCC Chairman, to determine the location of all water wells in the Hobbs Pool area, and determine all physical characteristics of such wells as to pipe, depth and purity of water. The following organizations were appointed to the subcommittee:

Shell Oil Co.
Continental Oil Co.
State Engineer

A third subcommittee was appointed, Samedan Chairman, to investigate contamination of the fresh water aquifer from causes other than oil wells. The following organizations were appointed to this subcommittee:

Pan American Pet. Corp.
City Water Board

The afternoon session was largely taken up by discussing methods of preventing future contamination.

Casing programs and methods the OCC used in checking for leaks was discussed.

Following considerable discussion of preventing future contamination, the committee may recommend the following:

1. That surface pipe set on clamps should be corrected, and that a small diameter pipe be used to vent all surface bradenheads to the atmosphere at all times or install a sensitive gauge.

2. That quarterly tests by operators be submitted to the OCC with the certification that no leaks were found or if leaks were found a program for correction. One such test each year to be witnessed by the OCC.

3. That packers be installed on all flowing wells and the annular space be filled with sweet oil.

The committee meeting was adjourned until 9:00 A.M. August 1, 1957.

Yours very truly,

OIL CONSERVATION COMMISSION

R. F. Montgomery
Proration Manager

RFM/mc
cc-E. J. Fischer, Engineer
OCC, Hobbs
encl.

A Summary on the Results of Eliminating Underground Waste and Fresh Water Contamination in the Hobb Pool Area.

Introduction

The recent published (show Headlines) reports of oil contaminating the Fresh Water aquifers near the City of Hobbs has caused numerous inquires. The most frequent question asked was how did ~~the~~ oil & gas migrate into the water sands? The first answer of course is that the discovery of the Hobbs Pool in 1928 when Hobbs consisted of 2 General Stores and a Schoolhouse, was the main reason. Without meaning to be fischous? by the above statement other contributing fractors were:

1. The Corrosive nature of

the Hobbs Pool oil.

2. The age of much of the well equipment

3. The type of older equipment

4. The type of some well equipment used during National emergencies and during several steel strikes

The above items can be attributed to the operator, nature and emergencies.

5. Failure to recognize the problems and reporting to a responsible body.

This can be attributed to both the operator, citizens and the various government bodies including the City of Hobbs, the State Engineer and the Oil Conservation

throughout the country.

Further the Hobbs Pool was the first important oil reservoir found in this entire area. If the Hobbs pool had not been discovered or had it been delayed a few years it is entirely possible that New Mexico's economy would not be based on the oil industry as it is now but possibly the tourist industry

By 1930 six months after the second well was completed Hobbs was a town of over 12,000 people. Before the end of 1930 over 130 wells were completed and had a rated potential of over 1,000,000 BOPD. This probably is far more oil than all of the some 9600 well in Southeastern N.M. could produce today. In fact somewhat the terrific impact the discovery of the Hobbs pool had on the oil industry and the economy of N.M.

6. The drilling of water wells that penetrated all fresh water aquifers without isolating ~~un~~contaminated zones from those that were contaminated

The responsibility here lies with those people that have drilled water wells.

The above remarks makes it appear that everyone has been remiss however that is not true in that the Hobbs pool is one of the classic oil reservoirs of the world, and true Conservation under the direction of Mr. Staley had its beginning in this field. Goverment bodies and engineers from all parts of the country have studied the principals setup for this field that become guides for developing fields

Presently there are 345 producing wells on the Hobbs structure. These wells have produced some 153,000,000 barrels of oil

Drilling and Production Methods

Prior to 1931

20 wells surface did not reach Red Bed

Set about 200 feet of 15½" Surface pipe Cementing to surface.

9 5/8 set and cemented at about 2750 feet. Then count 4100 feet 5" set & cemented. Then 3 inch hole to about 5' of bottom

Any cost about $90,000

By the end of 1941 265 Hobbs Pool wells were producing.

During the Bowers development some 85 wells were drilled

"A Typical casing program was 400' 9 5/8, 3100' 5 1/2

Enough Historical background

① The fact that casing leaks exist was first brought to the attention of the New Mexico Oil Conservation Commission by letter from the Humble Oil & Ref Co on August 12, 1953. The Director of the OCC called a meeting of Hobbs Pool operators on August 25, 1953 and issued a directive that tests for casing leaks be performed before Oct. 1, 1953. The Humble Bowers 2A well produced some 8,000 bbls of oil from the Surface + Intermediate

Braidenhead

Humble Bowers 2-A 2335's

2310' E Sec 30 18-38

15½ / 102 / cmt

12½ / 242 / 225

9 5/8 / 2750 / 650

7 / 3960 / 300

5½ / 4238 / 30 sx

Aug 2, 1953 Temp. Survey indicated leak @ 18 feet, 216 feet, 3676 feet Pressured up between Tubing + 5½ + 5½ + 7" 7 + 9 5/8 - no leaks. Csg was dry to 12 feet + fluid was entering thru an open ½" valve on Surface Csg. The well flowed to pits a 18 to 20 BOPH.

Total Cumulative oil produced thru surface csg thru Sept 8, 1953 was 8,212 BO

(2) To insure that the operators had found all leaks a second directive was issued on March 12, 1954 to recheck all well with a Commission representative to witness these tests.

On March 15 1954 at a special mtg of the City Council Resolution No. 686 was adopted, this resolution declared that an emergency existed due to leaks in well csg.

The Oil Commission was at that time conducting a survey

(3). In August of 1956 a meeting was held by the OCC to discuss appropriate csg programs for SE N Mex. At this meeting it was brought to the attention of operators that water contamination existed in Section 30 of T18S, R-38-E. Mr. Porter Director of the OCC and Mr Johnny Walker member of OCC were present & Mr. Porter informed the operators that all wells must be continually checked to insure that no leaks ever exist, Mr. Porter made it quite clear that leaking

City would not be tolerated, and directed that a 4 section area be rechecked immediately and set up another complete recheck for the Hobbs Pool which was completed ~~the~~ earlier this year.

During the testing in the Hobbs ~~field~~ Pool from Aug 53 to 1957 52 wells were repaired
$400,000 est cost todate

On June 19, 1957 after the City Council heard evidence that oil contamination existed in our fresh water supply a mtg was held between Mr. Porter and Mr. Hallam City attorney to determine steps to be taken. Mr Porter had been informed that no wells are presently leaking

and so informed Mr. Hallam.
It was the opinion of
the City Government that
the Air and Gas should
be removed from the
aquifer. This office was
instructed to survey this matter
and make a preliminary
investigation. We have made
investigation and gathered
considerable information and
it is now ready for study
to determine —

STATE OF NEW MEXICO

Controlling State Agency

State Engineer

General

The laws of 1907 created the office of the State Engineer and provided for his general supervision of the waters of the state including the measurement, appropriation and distribution thereof. The State Engineer has formulated the following regulations which affect water well construction standards.

Drilling of Well

No well may be drilled in a declared underground water basin except by a licensed well driller. Before licensed driller may drill a well, he shall ascertain that the land owner has a valid permit for such work. He shall keep a reliable log of each well drilled, showing formations, water-bearing strata, etc.

In general, the casings of irrigation wells penetrating artesian aquifers shall not exceed the following maximum outside diameters: for irrigated areas less than 100 acres in size, 10-3/4 inches; for irrigated areas exceeding 100 acres, 13-3/8 inches.

Exploration in Artesian Aquifers

Any person proposing to drill a well or wells for oil, gas or other minerals, or for geological or geophysical prospecting within any area of artesian water supply in any declared underground water basin shall notify the State Engineer of the purpose of proposed exploration, the type of equipment to be used, the location and specifications of the proposed work and the schedule of performance. He shall furnish bond to the State of New Mexico in the sum of $5,000.00 for the drilling of one well or $10,000.00 for the drilling of more than one well. Said bond shall be approved by and filed with

the New Mexico Oil and Gas Commission or the State Engineer. Such drilling shall be undertaken only under permit of the State Engineer.

Log and Well Records

The well driller shall keep a log of each well drilled, repaired or deepened, making current records as drilling progresses. The well driller shall submit to the Groundwater Supervisor, State Engineer Sub-Office, P. O. Box 810, Roswell, New Mexico, in triplicate, on forms supplied by the State Engineer, a complete and properly executed well record, not later than ten (10) days after completion of the well. Records shall be submitted for each artesian or non-artesian well drilled, repaired, deepened or cleaned.

Samples

The well driller shall, when requested by the State Engineer, furnish (in sample bags supplied by the State Engineer) samples of the formations encountered during drilling operations. The method of sampling and the quantities required will be stipulated by the State Engineer.

Suspension or Revocation of Driller's License

The State Engineer may, upon notice and hearing, suspend or revoke a water well driller's license if he finds that said well drilled has:

(a) intentionally made a material misstatement of facts in his application for a license;

(b) intentionally made a material misstatement of facts in a Well Record report;

(c) been found to be incompetent as a well driller;

(d) wilfully violated any of the prescribed rules and regulations;

(e) failed to submit a Well Record report of well or wells drilled, repaired, or deepened in accordance with the rules and regulations; or

(f) wilfully violated any other condition of the bond maintained by him as a prerequisite for such license.

After one year following the date of revocation of a Water Well Driller's license the well driller may make application to the State Engineer for a new license. Appeals from the decision of the State Engineer may be taken to the District Courts of the State in the same manner as now provided for other appeals from action of the State Engineer.

Should the bond be violated, the principal and sureties are liable for damages to the State of New Mexico and any other person who may be injured thereby. In addition, the State Engineer is authorized to recover on behalf of the State of New Mexico a civil penalty in an amount to be determined by the District Court in which the action is tried, but not to exceed $1,000.00.

Construction of Artesian Wells

The casing for artesian wells shall be inspected by the State Engineer or his representative and shall be of proper weight, of good quality, smooth and without pits. The threads shall be in good shape. The threads, if worn or damaged, must be redressed. A casing shoe of standard make shall be used in all instances. In no case shall the outer or water-carrying casing be perforated.

Casing of various sizes shall meet the following minimum A.P.I. specifications:

TABLE 7

WATER WELL CASING SPECIFICATIONS

Outside diameter, inches	Weight, lbs. per foot: Pipe only	Pipe and couplings	Wall thickness, inches	Length of coupling, inches	Threads per inch	Grade of casing
5-1/2	12.84	13.12	.228	6-3/4	10 or 8	F-25
6	14.65	15.03	.238	7	10 or 8	F-25
6-5/8	16.69	17.29	.245	7-1/4	10 or 8	F-25
7	19.54	20.01	.272	7-1/4	10 or 8	H-40
7-5/8	23.47	24.26	.300	7-1/2	8	H-40
8-5/8	27.02	28.13	.304	7-3/4	8	H-40
9-5/8	31.03	32.25	.312	7-3/4	8	H-40
10-3/4	38.88	40.50	.350	8	8	J-55
11-3/4	45.56	46.94	.375	8	8	J-55
13-3/8	52.74	54.28	.380	8	8	J-55

After the hole has been drilled to the confining bed overlying the artesian aquifer and the casing has been landed theron, it shall be cemented with oil-well cement. The cementing procedure to be followed depends upon whether the well has been drilled by the cable tool method or by the rotary method.

The following procedure shall be used in the case of a well drilled with cable tools. Two-inch tubing shall be run inside the casing to within two feet of the bottom of the hole. A heavy slurry of oil-well cement and water shall then be pumped or poured through the tubing. During this operation the casing shall be raised from six to fifteen feet from the bottom depending upon the density and stability of the formation immediately above the confining stream. After the cement has been run, the tubing shall be removed and the casing released or driven to the bottom. The cement shall be allowed to set for seventy-two hours before drilling is resumed. The following table shows minimum amounts of cement to be used in wells drilled with cable tools:

TABLE 8

MINIMUM AMOUNTS OF CEMENT ALLOWED
IN CABLE TOOL WELLS

Outside diameter of casing, inches	Minimum size of hole, inches	Minimum sacks of cement to be used
5-1/2	6-5/8	5
6-5/8	8-1/4	5
7	9-5/8	15
8-5/8	10	15
10-3/4	12-1/2	20
13-3/8	15-1/2	20

If a well is drilled by the rotary method, cementing shall proceed as follows: After the casing has been run and landed, the pump shall be started and mud circulation maintained for a time with the casing raised slightly in order to equalize the mud pressure inside and outside of the casing. A heavy slurry of oil-well cement and water is then mixed and poured into the top of the casing. A casing plug of standard make is placed in the casing above the cement. A swedge nipple is then screwed onto the top of the casing and connected to the mud pump. The pump is started and mud slurry is pumped into the casing forcing the cement and casing plug down the casing.

It is advisable to place a length of two by four about six feet long ahead of the plug to act as a guide and keep it from going to the bottom as it is important to retain some of the cement in the casing to insure complete cementing around the shoe. A measuring line is run behind the plug so that the driller may know its location at all times. When the plug reaches a point from five to seven feet above the bottom, the pump should be stopped and the casing lowered to the bottom. The cement must set seventy-two hours before drilling is resumed.

The following table shows the minimum amounts of cement to be used in wells drilled with rotary tools:

TABLE 9

MINIMUM AMOUNTS OF CEMENT ALLOWED
IN ROTARY TOOL WELLS

Outside diameter of casing, inches	Minimum sacks of cement to be used
5-1/2	10
6-5/8	12
7	12
8-5/8	15
10-3/4	20
13-3/8	30

If any soft unstable formation is encountered below the casings seat a perforated liner may be set. The liner shall extend from a hard seat on the bottom of the hole to a point five to ten feet above the bottom of the casing. If the water-bearing fromation is stable, no liner will be required.

Flowing wells must be equipped with a suitable valve.

Repair of Artesian Wells

Faulty, leaking artesian wells sometimes waste more water underground than they deliver at the surface. When leaks in the casing are found below ground and the casing and well are otherwise in good condition, the

well may be repaired by relining with a casing which will slip down inside the original casing. The liner shall be set at the bottom of the original casing regardless of the location of the point of leakage. If this were not done, any new leaks developing below the relined section could not be repaired.

A packer of standard make approved by the State Engineer shall be used in all well repairs. It shall be installed on the bottom of the first or lowest joint of the liner and shall be set immediately above the casing shoe of the original casing. Homemade packers will not be permitted.

The following table shows the recommended sizes of liners to be used if the walls of the original casing are comparatively smooth. All dimensions are in inches.

TABLE 10

RECOMMENDED LINER SIZES

in inches

Original casing size		Recommended liner size
Outside diameter	Inside diameter	Outside diameter
6-5/8	6.135	4-1/2
8-5/8	8.0	7
10-3/4	10.92	8-5/8
13-3/8	12.24	10-3/4

The removal of any of the original casing in an artesian well to be relined is prohibited.

Where it is found necessary to set large surface pipe for the installation of a turbine pump, the following procedure shall be followed. The surface pipe shall be driven to the desired depth outside the original casing after which the original casing shall be cut off with casing cutters at a point approximately ten feet above the bottom of the new pipe. The original casing shall not be removed until the new pipe has been landed. A lead seal shall then be driven between the original casing and the new surface pipe to make the joint watertight.

Plugging of Artesian Wells

If an artesian well is to be replaced by a new well, the owner shall file a $1,000 bond with the State Engineer to insure the proper plugging of the well to be abandoned, and such well shall be plugged immediately following the completion of the new well. If the old well is plugged before the drilling of the new well, however, such plugging bond will not be required, and the work

shall be done under the supervision of the State Engineer or his representatives who shall designate the amount of cement to be used and the depths at which cement plugs shall be set. Plugging expense shall be borne by the owner, or may be borne by the conservancy district, if one has been organized to do and finance such work.

Two approved procedures of plugging are recognized--the hydraulic method and the spudding method.

In the hydraulic method, 2 inch tubing is run into the well to a point at or near the bottom where the first cement plug is to be set. Clay mud mixed into a slurry weighing from 12 to 15 pounds per gallon is pumped through this tubing until all flow of water is shut off and the mud slurry coming out of the top of the well is of same consistency as that pumped into the well. Oil well cement is then mixed with water to the same or a slightly heavier consistency than the mud slurry and is either pumped through or poured into the tubing, either method being acceptable.

When the specified amount of cement for the first plug has been run into the well, the tubing is raised to the point where the next cement plug is to be poured. Cement plugs shall thus be set in the impermeable strata between each artesian water-bearing formation and above the uppermost artesian water-bearing formation. The depth at which each cement plug shall be set and the amount of cement to be used in each plug shall be determined by the State Engineer or his representative. When this has been done, the tubing is removed from the well and the hole filled to the top with heavy mud.

In the spudding method, the hole is filled with fine gravel to the point where the first cement plug is to be set, the gravel being poured in slowly so as not to bridge the hole. Oil well cement and water are then mixed and poured through two-inch tubing on top of the gravel. The tubing is then plugged and additional gravel poured to fill the well to the next, plug location. The process is repeated until all necessary cement plugs have been set. The hole is then filled to the surface with soil, gravel, or mud.

Specifications for Oil, Gas, Mineral and Test Wells

All test, exploratory or producing mineral wells shall be so constructed, maintained and operated that each water shall be confined to the aquifer in which it is encountered. All test or exploratory wells penetrating artesian aquifers shall be cased. The casing shall be subject to inspection of the State Engineer of his representative and shall be of proper weight, of good quality, smooth and without pits. The threads shall be in

good condition. If worn or damaged, the threads must be redressed. A casing shoe of standard make shall be used in all instances.

Casing of various sizes shall meet the minimum A.P.I. specifications set forth in "Construction of Artesian Wells".

The surface string of pipe must be bonded to the confining bed overlying the artesian aquifer by the method described in "Construction of Artesian Wells", using sufficient neat cement to effectively seal off the aquifer and protect it from contamination. The cement shall be allowed to set for a period of not less than seventy-two hours. The amount of cement to be used shall be stipulated by a representative of the State Engineer or the Oil Conservation Commission.

The second (oil-carrying) string of casing shall be set through the artesian aquifer and landed into the formation underlying the artesian aquifer after the aquifer has been mudded off by a mud slurry weighing at least twelve pounds per gallon. The second string shall be properly cemented between the shoe of the inside casing and the bottom of the surface string by the method described in "Construction of Artesian Wells" applying to rotary equipment. Not less than 150 per cent of the calculated amount of cement required to fill the space between the inside casing and the drilled hole below the base of the surface casing shall be used. The cement shall be allowed to set for a period of not less than seventy-two hours. A test shall then be made of the adequacy of the sealing off of the artesian water by the pressure or bailer method in the presence of a representative of the State Engineer or the Oil Conservation Commission.

Shot holes for geophysical exploration shall not penetrate closer than twenty-five feet above any known artesian aquifer.

In the event that the test well is to be abandoned, the State Engineer and the Oil and Gas Inspector shall be notified and such well shall be plugged in compliance with the specifications of the Oil Conservation Commission or the State Engineer and in such manner that waters will be permanently confined to the aquifers in which they were encountered.

Specifications for Non-Artesian Wells

The State Engineer has not adopted any general specifications for non-artesian or shallow wells. Any specific requirements and provisions which may be made are set forth in the permit which he approves for the drilling, repair, deepening or cleaning of such well.

It is desirable that each well be constructed so as to leave an opening for measuring line to be run in between the outside casing and the pump housing in order that the water level in the well may be measured at any time. If desired for sanitary purposes a removable plug may be provided for such opening.

Abandoned Wells-Waste of Water

Any artesian well which has been abandoned for more than four years, from which any water right has been forfeited, which is found to be wasting water may be summarily plugged without notice to the owner by the State Engineer, his representative, or the Artesian Conservancy District within which the well is located.

The State Engineer or the Artesian Conservancy District may require the owner of any artesian well currently in use which is found to be leaking or wasting water to repair or correct the same in a satisfactory manner. If, after proper notification, the owner fails or refuses within ten days to abate the nuisance, the officials having jurisdiction may do whatever is necessary and proper to prevent such waste and the cost thereof shall be in lien against the land, provided that claim of lien is filed with the County Clerk within five days after the repairs or corrections are completed.

HOBBS OFFICE OCC

Roswell, New Mexico
August 5, 1957 AM 10 : 13

MEMORANDUM

TO: A. L. Porter, Jr., Director, Oil Conservation Commission

FROM: Committee Studying Fresh Water Contamination in the Hobbs Pool Area.

SUBJECT: Progress Report.

This Committee was appointed and its assignment made at the general meeting called by the Oil Conservation Commission on July 9, 1957. At that time a progress report was requested within 30 days. This is that progress report.

The Committee met for the first time in Hobbs, New Mexico, on July 19, 1957, and subsequently on July 25, 1957, and August 1, 1957. All of the organizations and companies appointed to the Committee had representatives present at each meeting.

It is the consensus of the Committee that their assignment as a whole is approximately 50% completed and that their work will be completed with a final report prepared by the first week of September, 1957.

The principal items discussed during the three committee meetings were as follows:

Steno Pool

1. The physical characteristics of the Ogallala formation and the movement of water through this aquifer. Introduction on the subject was furnished by Messrs. E. G. Minton and Zane Spiegel.

OCC Cont

2. The exhibits prepared by Mr. J. W. Runyan and presented at the general meeting held on July 9, 1957.

OCC City

3. Apparent contaminated conditions which exist in the Ogallala formation ~~northwest~~ of the City of Hobbs.

Pan Am Cont. 4. Feasibility of eliminating or removing the apparent contamination.

City Shell 5. The possibility of contamination of the Hobbs City water supply by migration from the area of apparent contamination. So many wells to watch for future

City Sandow 6. Possible contamination of the fresh water by sources other than oil or gas wells such as sewage, waste oil and acid, open storm sewer ditches, gas plant waste water, refuse, and oil held in earthen pits.

Tidewater Shell 7. Possible need for rules and regulations governing the drilling, completion and abandonment of water wells in the Hobbs pool area.

St. Eng Conoco 8. Establishment of an observation water well program to detect any new contamination and observe the movement, if any, from the area to the northwest of the City of Hobbs.

Tidewater Shell 9. Possibility of, and methods for, obtaining potable water from the areas of apparent contamination.

OCC Pan Am 10. Methods of determining the existence of defective casing in oil and gas wells. exhibit

OCC Sandow 11. Programing of bradenhead pressure tests on oil and gas wells in the Hobbs Pool area. yearly summary to supplement Quarterly absorbed in Schedule

Tidewater Sandow 12. Method of repairing oil well casing found to be defective.

During the course of the above discussion, the need for subcommittees was indicated and three were appointed at the meeting on July 25.

1. Subcommittee to locate and gather data on all water wells in the Hobbs Pool area.

   Oil Conservation Commission - Chairman
   Continental Oil Company
   State Engineer's Office
   Shell Oil Company

This subcommittee made a progress report on August 1, indicating that their assignment was approximately 35% completed and expected to complete their assignment within three weeks.

Make findings short + as many as possible covering all of beliefs, opinions, things mentioned etc.

2. Subcommittee to study water well completion and abandonment practices in the Hobbs Pool area.

Tidewater Oil Company - Chairman
City Water Board
State Engineer's Office
Samedan Oil Corporation

This subcommittee made a progress report on August 1, indicating that their assignment was completed.

3. Subcommittee to study possibilities of fresh water contamination through the disposal of waste products.

Samedan Oil Corporation - Chairman
Pan American Petroleum Corporation
City Water Board

This subcommittee made a progress report on August 1, indicating that their assignment was 75% completed and should complete their assignment within one week.

For the Committee

J. W. Brown
Acting Chairman

Copies to: Official Members and Alternates

SECOND MEETING OF
COMMITTEE STUDYING PROTECTION OF
HOBBS FRESH WATER SANDS
HOBBS, NEW MEXICO
JULY 25, 1957

The second meeting of the Committee Studying Protection of Hobbs Fresh Water Sands was held in the OCC Conference Room in Hobbs, New Mexico on July 25, 1957. Official representatives present and taking part in the meeting were as follows:

J. W. Brown, Acting Chairman	Pan American Petroleum Corporation
R. C. Lammen, Alternate	Continental Oil Company
R. J. Francis, Alternate	Continental Oil Company
W. G. Abbott, Alternate	Hobbs City Water Board
E. P. Montgomery, Member	New Mexico Oil Conservation Commission
E. J. Fischer, Alternate	New Mexico Oil Conservation Commission
E. E. Layhe, Alternate	Camden Oil Corporation
R. C. Cabaniss, Alternate	Shell Oil Company
J. M. Montgomery, Alternate	Shell Oil Company
Zane Spiegel, Member	State Engineer's Office
R. L. Borton, Alternate	State Engineer's Office
H. P. Shackleford, Member	Tidewater Oil Company
R. E. Miller, Alternate	Tidewater Oil Company

Others present:

Eric Engbrecht	New Mexico Oil Conservation Commission
J. W. Runyan	New Mexico Oil Conservation Commission

The Meeting was called to order at 9:00 a.m. by Mr. J. W. Brown, Acting Chairman.

The entire meeting was devoted to the discussion of elimination of contamination which may already exist and possible action to prevent future contamination. During the discussion three sub-committees were appointed.

1. Subcommittee to gather data on all existing water wells located in the horizontal limits of the Hobbs Pool.

2. Subcommittee to study drilling and completion practices for future water wells in the Hobbs Pool Area.

3. Subcommittee to study possibilities of contamination by disposal of waste materials in the Hobbs Pool Area.

It was agreed that the next meeting of the committee would be held in the Oil Conservation Commission Conference Room in Hobbs, at 9:00 a.m., August 1, 1957. In the meantime, subcommittees would meet.

The meeting was adjourned at 3:15 p.m.

J. W. Brown
Acting Chairman

THIRD MEETING OF
COMMITTEE STUDYING PROTECTION OF
HOBBS FRESH WATER SANDS
HOBBS, NEW MEXICO
AUGUST 1, 1957

The third meeting of the Committee Studying Protection of Hobbs Fresh Water Sands was held in the OCC Conference Room in Hobbs, New Mexico on August 1, 1957. Official representatives present and taking part in the meeting were as follows:

J. W. Brown, Acting Chairman	Pan American Petroleum Corporation
R. C. Lannen, Alternate	Continental Oil Company
R. J. Francis, Alternate	Continental Oil Company
W. G. Abbott, Alternate	Hobbs City Water Board
R. F. Montgomery, Member	New Mexico Oil Conservation Commission
E. J. Fischer, Alternate	New Mexico Oil Conservation Commission
G. W. Putman, Member	Samedan Oil Corporation
R. E. Layhe, Alternate	Samedan Oil Corporation
J. W. Montgomery, Alternate	Shell Oil Company
R. L. Borton, Alternate	State Engineer's Office
H. P. Shackleford, Member	Tidewater Oil Company

Others present:

Eric Engbrecht	New Mexico Oil Conservation Commission
J. W. Runyan	New Mexico Oil Conservation Commission

The Meeting was called to order at 9:00 a.m. by J. W. Brown, Acting Chairman.

Reports were heard from the three sub-committees appointed at the meeting on July 25.

Preparation of the progress report and the final report were discussed. A sub-committee was designated to prepare the progress report.

The meeting was adjourned at 11:55 a.m.

J. W. Brown
Acting Chairman

FOURTH MEETING OF COMMITTEE STUDYING PROTECTION OF HOBBS FRESH WATER SANDS HOBBS, NEW MEXICO AUGUST 8, 1957

The fourth meeting of the Committee Studying Protection of Hobbs Fresh Water Sands was held in the OCC Conference Room in Hobbs, New Mexico, on August 8, 1957. Official representatives present and taking part in the meeting were as follows:

J. W. Brown, Acting Chairman	Pan American Petroleum Corporation
R. J. Francis, Alternate	Continental Oil Company
H. F. Montgomery, Member	New Mexico Oil Conservation Commission
C. W. Putman, Member	Samedan Oil Corporation
J. W. Montgomery, Alternate	Shell Oil Company
R. L. Borton, Alternate	State Engineer's Office
H. P. Shackleford, Member	Tidewater Oil Company

Others present:

Eric Engbrecht	New Mexico Oil Conservation Commission
J. W. Runyan	New Mexico Oil Conservation Commission

The meeting was called to order at 9:15 a.m. by J. W. Brown, Acting Chairman.

Reports were heard from the two sub-committees which had not completed their assignments.

Final discussion was held on several items which had not been completed at previous meetings.

Considerable discussion was devoted to the preparation of the Committee's final report. Assignments were made to the various

organizations and companies to commence drafting the final report.

The next meeting was scheduled to be held at 9:00 a.m. in the OCC Conference Room in Hobbs on August 22.

The meeting was adjourned at 11:30 a.m.

J. W. Brown
Acting Chairman

FIFTH MEETING OF COMMITTEE STUDYING PROTECTION OF HOBBS FRESH WATER SANDS HOBBS, NEW MEXICO AUGUST 22, 1957

The fifth meeting of the Committee Studying Protection of Hobbs Fresh Water Sands was held in the OCC Conference Room in Hobbs, New Mexico, on August 22, 1957. Official representatives present and taking part in the meeting were as follows:

J. W. Brown, Acting Chairman	Pan American Petroleum Corporation
R. J. Francis, Alternate	Continental Oil Company
E. F. Montgomery, Member	New Mexico Oil Conservation Commission
E. J. Fischer, Alternate	New Mexico Oil Conservation Commission
R. E. Layne, Alternate	Sinclair Oil Corporation
R. C. Cabaniss, Alternate	Shell Oil Company
J. W. Montgomery, Alternate	Shell Oil Company
H. L. Morton, Alternate	State Engineer's Office
H. P. Shackleford, Member	Tidewater Oil Company

Others present:

Oris Engbrecht	New Mexico Oil Conservation Commission
J. M. Runyan	New Mexico Oil Conservation Commission

The meeting was called to order at 9:15 a.m. by J. W. Brown, acting Chairman.

Reports were heard from the two sub-committees which had not completed their assignments.

Major portion of the meeting was devoted to the preparation of the Committee's final report. Draft copies of items to be included in the final report were reviewed in detail by the Committee.

The next meeting was scheduled to be held at 9:00 a.m. in the CCS Conference Room in Hobbs on September 5, 1957.

The meeting was adjourned at 3:45 p.m.

J. W. Brown
Acting Chairman

MEETING OF
COMMITTEE STUDYING PROTECTION OF
HOBBS FRESH WATER SANDS
HOBBS, NEW MEXICO
JULY 19, 1957

A meeting of the Committee Studying Protection of Hobbs Fresh Water Sands was held in the OCC Conference Room in Hobbs, New Mexico on July 19, 1957. Official representatives present and taking part in the meeting were as follows:

J. W. Brown, Acting Chairman	Pan American Petroleum Corporation
R. C. Lannen, Alternate	Continental Oil Company
E. V. Boynton, Alternate	Continental Oil Company
L. A. Calhoun, Member	Hobbs City Water Board
W. C. Abbott, Alternate	Hobbs City Water Board
R. F. Montgomery, Member	New Mexico Oil Conservation Commission
E. J. Fischer, Alternate	New Mexico Oil Conservation Commission
G. E. Layhe, Alternate	Samedan Oil Corporation
W. E. Owen, Member	Shell Oil Company
R. C. Cabaniss, Alternate	Shell Oil Company
Zane Spiegel, Member	State Engineer's Office
R. L. Morton, Alternate	State Engineer's Office
H. F. Shackelford, Member	Tidewater Oil Company
R. M. Miller, Alternate	Tidewater Oil Company

Others present:

Eric Engbrecht	New Mexico Oil Conservation Commission
J. M. Runyan	New Mexico Oil Conservation Commission
O. Hirschfeld	New Mexico Oil and Gas Engineering Committee

The Meeting was called to order at 1:30 p.m. by Mr. J. W. Brown, Acting Chairman.

Mr. E. C. Minton from Lovington, New Mexico, was guest speaker and spoke on the movement of water in the fresh water sands. Afterwards, the Committee discussed possible means to prevent spread of contamination in the fresh water sands and eliminate the contamination which may have already occurred. No conclusion was reached.

It was agreed that the next meeting of the Committee would be held in the OCC Conference Room in Hobbs, at 9 a.m. July 25, 1957.

The meeting was adjourned at 4:10 p.m.

J. W. Brown
Acting Chairman

Casing Leak Survey Spring 1956 for Hobbs Area.

Hobbs Pool Wells = 293
Bowers Pool Wells = 51
Byers-Queen Gas = 3
Hobbs Drinkard = 1
Temporarily Abd. = 5
Total Wells = 353

Wells not yet tested = 24. Shelley = 2 overlooked
John Yates = 3, Sinclair = 1 overlooked
Pan-American = 18 digging out cellars

Wells that were exempted = 16 due to mechanical condition of well i.e old leaks repaired and cmt. circulated to surface, etc.

Leaks found = 6
Hazardous situations repaired = 1 - Shell Sanger well
had fresh water flowing out of surface x intermediate annulus.
% wells tested = $\frac{329}{353}$ = 93%
% wells w/ leaks = $\frac{6}{353}$ = 1.7%

All leaks found in west and north west end of fields.

HOBBS FIELD TOUR

We will leave the OCC Office at Broadway and Coleman streets and proceed down Broadway east to the first stop light (Grimes street). Turn left (north) up Grimes past the second light at Grimes and Sanger, North to the intersection of Grimes and Lovington highway. Turn left on the Lovington highway, go one block and turn left onto the dirt road across the railroad tracks and turn into the Dowell Inc. yard and proceed down along the left (east) side of the buildings.

The water well that supplies Dowell's water is on your left in town section. To the east approximately 2000 feet is Hobbs City Water well No.13. This City water well is approximately 1770 feet from an oil well to the south, 2100 feet from the Municipal dump to the Northeast and 1900 feet from the closest oil well to the North. We will attempt to show that gas is in the Dowell well by lighting the gas. If the gas volume is too small to show Possibly we can smell it emitting from the water hydrants.

From Dowell we will proceed west on dirt road to Mr. Ellison's place where we will attempt to show that oil is present in the water well. Mr. Engbrecht with the OCC, will conduct this part of the field trip.

We will then proceed West and then South to show an open oil pit. This pit is a water and waste oil burn pit.

From here please follow the 1935 blue and white Chevrolet through the field. Some of the lease roads are rocky so please travel slow.

We will point out a large waste (formation) water pit which will be on your right. We will not stop but you will be able to see it as you drive down the road.

From here we go to the right (west) of the gasoline plant and proceed around in back (south side) of the plant to show another large waste water pit. We will stop here in order that you may see the gas bubbles rising to the surface. You will note that as each bubble breaks on the surface it leaves a slight trace of oil. To the east of this spot there is contamination of a private water well. You can't see it but also to the east the City of Hobbs has an open waste water pit.

This concludes the tour and if you will please follow the blue and white Chevrolet we will return to town.

The main reason for this tour is to show that there are other things causing contamination of the fresh water besides leaks in oil wells. The degree to which they contaminate the fresh water is of course, impossible to determine.

Thank you for your cooperation.

OIL CONSERVATION COMMISSION

E. J. Fischer
Engineer District I

1946

COMMITTEE STUDYING PROTECTION OF HOBBS FRESH WATER SANDS

Pan American Petroleum Corporation
C. L. Kelley, Chairman, Box 899, Roswell, New Mexico
J. W. Brown, Alternate, Box 899, Roswell, New Mexico

Continental Oil Company
R. L. Adams, Member, 825 Petroleum Building, Roswell, New Mexico
F. T. Elliot, Alternate, Box 427, Hobbs, New Mexico

Hobbs City Water Board
L. A. Calhoun, Member, Box 456, Hobbs, New Mexico
W. G. Abbot, Alternate, Box 1142, Hobbs, New Mexico

New Mexico Oil Conservation Commission
R. F. Montgomery, Member, Box 2045, Hobbs, New Mexico
E. J. Fischer, Alternate, Box 2045, Hobbs, New Mexico

Samedan Oil Corporation
G. W. Putman, Member, Box 2137, Hobbs, New Mexico
C. E. Layhe, Alternate, Box 2137, Hobbs, New Mexico

Shell Oil Company
W. E. Owen, Member, Box 1957, Hobbs, New Mexico
R. C. Cabaniss, Alternate, Box 1957, Hobbs, New Mexico

State Engineer's Office
Zane Spiegel, Member, Box 1079, Santa Fe, New Mexico
H. L. Borton, Alternate, Box 810, Roswell, New Mexico

Tidewater Oil Company
H. P. Shackelford, Member, Box 547, Hobbs, New Mexico
R. N. Miller, Alternate, Box 547, Hobbs, New Mexico

Randy

There are (about) 20 wells which have surface casing set short of the Red Beds

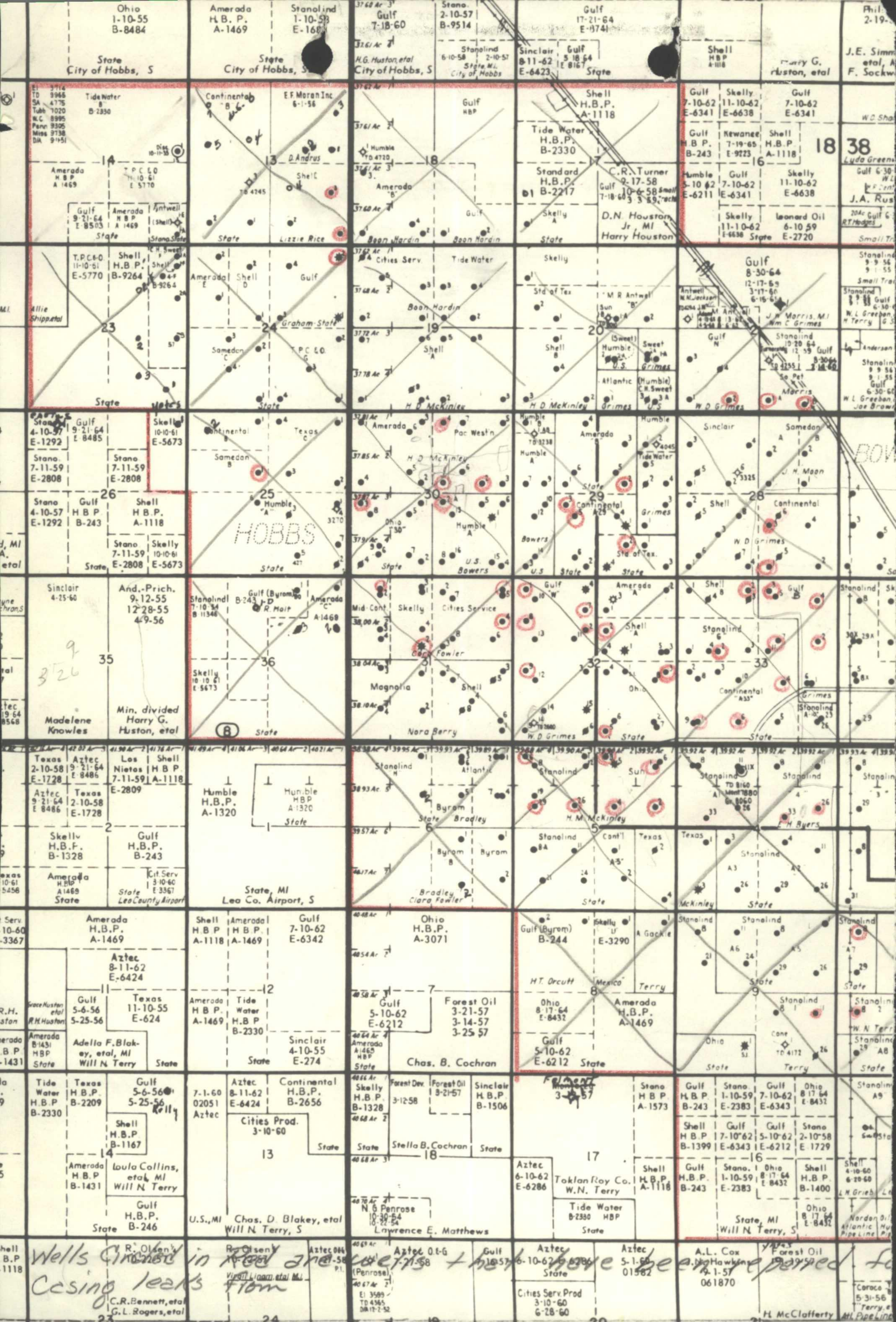
Any well with 190' of casing or more is set in to the red Beds.

Rule of thumb "eye ball" method

190' is the nearest point between Red. Beds and surface.

Range from surface is 220' to 190' to T. R.B.

J.W.R.


Ohio
1-10-55
B-8484
Amerada
H.B.P.
A-1469
Stanolind
State
City of Hobbs, S
Gulf
7-18-60
Stano.
2-10-57
B-9514
H.G. Huston, etal
City of Hobbs, S
Gulf
17-21-64
Sinclair
State
Shell
HBP
Huston, etal
J.E. Simm
etal
F. Sockw
Tide Water
B-2330
14
Amerada
HBP
A 1469
T.P.C.&O.
11-10-61
E 5770
Gulf
9-21-64
E 8503
State
Continental
"B"
E.F. Moran Inc
6-1-56
13
D. Andrus
Shell
Lizzie Rice
Gulf
HBP
Humble
18
Amerada
"B"
Boon Hardin
Shell
H.B.P.
A-1118
Tide Water
H.B.P.
B-2330
17
Standard
H.B.P.
B-2217
C.R. Turner
9-17-58
Skelly
D.N. Houston
Jr, MI
Harry Houston
Gulf
7-10-62
E-6341
Skelly
11-10-62
E-6638
Gulf
7-10-62
E-6341
Gulf
H.B.P.
B-243
Kewanee
7-19-65
E-9223
Shell
H.B.P.
A-1118
18
38
16
Humble
5-10-62
E-6211
Gulf
7-10-62
E-6341
Skelly
11-10-62
E-6638
Skelly
11-10-62
E-6638
Leonard Oil
6-10-59
E-2720
State
J.A. Rus
T.P.C.&O.
11-10-61
E-5770
Shell
H.B.P.
B-9264
C.H. Sweet
Allie
Shipp, etal
23
State
Amerada
E
Shell
D
Gulf
24
Graham-State
Samedon
C
T.P.C.&O.
G
State
Cities Serv.
Tide Water
Boon Hardin
19
Shell
A
H.D. McKinley
Skelly
Std. of Tex.
M.R. Antwell
"B"
20
Sun
Shell
B
(Sweet)
Humble
U.S.
Sweet
Grimes
Atlantic
(Humble)
C.H. Sweet
H.D. McKinley
Grimes
U.S.
Gulf
B-30-64
Antwell
J.H. Morris, MI
Wm C Grimes
Gulf
N
Stanolind
So Pet
Morris
W.D. Grimes
Stano.
4-10-57
E-1292
Gulf
9-21-64
E-8485
Skelly
10-10-61
E-5673
Stano.
7-11-59
E-2808
Stano
7-11-59
E-2808
26
Stano
4-10-57
E-1292
Gulf
H.B.P.
B-243
Shell
H.B.P.
A-1118
Stano
7-11-59
E-2808
Skelly
10-10-61
E-5673
State
Continental
Texas
C
Samedon
B
25
Humble
"A"
HOBBS
State
Amerada
Pac West'n
H.D. McKinley
30
Ohio
"30"
Humble
"A"
U.S.
Bowers
State
Humble
Amerada
Humble
A
Tide Water
29
State
Continental
Grimes
Bowers
U.S.
State
Std. of Tex.
State
Sinclair
Samedon
J.H. Moon
28
Shell
Continental
W.D. Grimes
BOW
Sinclair
4-25-60
And.-Prich.
9-12-55
12-28-55
4-9-56
35
Madelene
Knowles
Min. divided
Harry G.
Huston, etal
Stanolind
Gulf (Byrom)
B-243
R. Mait
Amerada
"C"
A-1469
36
Skelly
10-10-61
E-5673
8
State
Mid-Cont.
Skelly
Cities Service
Cook Fowler
31
Magnolia
Shell
Nora Berry
Gulf
"W"
Amerada
A
Shell
A
32
Ohio
W.D. Grimes
State
Shell
Gulf
B
Stanolind
G
33
Continental
"A33"
Grimes
Stanolind
State
Texas
2-10-58
E-1728
Aztec
9-21-64
E-8486
Los
Nietos
7-11-59
E-2809
Shell
H.B.P.
A-1118
Aztec
9-21-64
E-8486
Texas
2-10-58
E-1728
2
Skelly
H.B.P.
B-1328
Gulf
H.B.P.
B-243
Amerada
HBP
A1469
State
Cit. Serv.
3-10-60
E-3367
State
Lea County Airport
Humble
H.B.P.
A-1320
Humble
HBP
A 1320
State
State, MI
Lea Co. Airport, S
Stanolind
Atlantic
Byrom
Bradley
State
6
Byrom
B
Byrom
Bradley
Clara Fowler
Stanolind
Sun
H.M. McKinley
5
Stanolind
Cont'l
Texas
State
Stanolind
Stanolind
E.H. Byers
4
Texas
Stanolind
McKinley
State
Stanolind
Amerada
H.B.P.
A-1469
Aztec
8-11-62
E-6424
11
Gulf
5-6-56
5-25-56
Texas
11-10-55
E-624
Adella F. Blakey, etal, MI
Will N. Terry
State
Shell
H.B.P.
A-1118
Amerada
H.B.P.
A-1469
Gulf
7-10-62
E-6342
12
Amerada
H.B.P.
A-1469
Tide
Water
H.B.P.
B-2330
Sinclair
4-10-55
E-274
State
Ohio
H.B.P.
A-3071
7
Gulf
5-10-62
E-6212
Forest Oil
3-21-57
3-14-57
3-25-57
Amerada
State
Chas. B. Cochran
Gulf (Byrom)
B-244
Skelly
"U"
E-3290
A. Gackle
H.T. Orcutt
Mexico
Terry
8
Ohio
8-17-64
E-8432
Amerada
H.B.P.
A-1469
Gulf
5-10-62
E-6212
State
Stanolind
Stanolind
A6
9
State
Stanolind
Ohio
Cone
Terry
State
Tide
Water
H.B.P.
B-2330
Texas
H.B.P.
B-2209
Gulf
5-6-56
5-25-56
Kelly
Shell
H.B.P.
B-1167
14
Amerada
H.B.P.
B-1431
Loula Collins,
etal, MI
Will N. Terry
Gulf
H.B.P.
B-246
State
7-1-60
02051
Aztec
Aztec
8-11-62
E-6424
Continental
H.B.P.
B-2656
Cities Prod.
3-10-60
13
State
U.S., MI
Chas. D. Blakey, etal
Will N. Terry, S
Skelly
H.B.P.
B-1328
Forest Dev.
3-12-58
Forest Oil
3-21-57
Sinclair
H.B.P.
B-1506
State
Stella B. Cochran
State
18
N.G. Penrose
10-30-64
10-22-54
Lawrence E. Matthews
Felmont
3-1-57
17
Stano
H.B.P.
A-1573
Aztec
6-10-62
E-6286
Toklan Roy Co.
W.N. Terry
Shell
H.B.P.
A-1118
Tide Water
B-2330
HBP
State
Gulf
H.B.P.
B-243
Stano.
1-10-59
E-2383
Gulf
7-10-62
E-6343
Ohio
8-17-64
E-8432
Shell
H.B.P.
B-1399
Gulf
7-10-62
E-6343
Gulf
5-10-62
E-6212
Stano
2-10-58
E-1729
16
Gulf
H.B.P.
B-243
Stano.
1-10-59
E-2383
Ohio
8-17-64
E-8432
Shell
H.B.P.
B-1400
Ohio
8-17-64
E-8432
State, MI
Will N. Terry, S
Wells Circled in Red are wells that have been repaired for
Casing leaks from
C.R. Bennett, etal
G.L. Rogers, etal
Aztec
Cities Serv. Prod
3-10-60
6-28-60
A.L. Cox
061870
Forest Oil
H. McClafferty
Conoco
5-31-56

New Mexico Office of the State Engineer

Water Right Summary

Back

WINDMILL WELL TO NORTH OF LH GSF

DB File Nbr: RA 08233
Primary Purpose: STK 72-12-1 LIVESTOCK WATERING
Primary Status: DCL Declaration
Total Acres: 0
Total Diversion: 1.54
Owner: BOGLE FARMS

Documents on File

Doc	File/Act	Status 1 2 3	Trans_Desc	From/To	Acres	Diversion	Consumptive
DCL	07/10/1991	DCL PRC ABS	RA 08233	T	0	1.54	

(qtr are 1=NW 2=NE 3=SW 4=SE)

Point of Diversion (qtr are biggest to smallest) X Y are in Feet UTM are in Meters)

POD Number	Source	Tws	Rng	Sec	q	q	q	Zone	X	Y	UTM_Zone	Easting	Northing	La
RA 08233		17S	29E	22	1	1					13	587184	3632126	32 49

Priority	Status	Acres	Diversion	POD Number	Source
12/31/1914	DCL	0	1.54	RA 08233	

(quarters are 1=NW 2=NE 3=SW 4=SE)

Place of Use (quarters are biggest to smallest

Tws	Rng	Sec	q	q	q	q	Acres	Diversion	Consumptive	Use	Priority	Status	Other Location Description
										STK		DCL	NO PLACE OF USE GIVEN

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 17S Range: 29E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic ◉ All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report | Clear Form | WATERS Menu | Help

WELL / SURFACE DATA REPORT 02/28/2005

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest

DB File Nbr	Use	(acre ft per annum) Diversion	Owner	Well Number	Source	Tws	Rng	Sec	q	q	q
RA 08233	STK	1.54	BOGLE FARMS	RA 08233		17S	29E	22	1	1	
RA 08234	STK	1.34	BOGLE FARMS	RA 08234		17S	29E	32			

Record Count: 2

WATERS - Purpose of Use Codes (Water Administration Technical Engineering Resource System)

Last Modified: 8/02/2001

PURPOSE OF USE CODES

Use Code	Description
AGR	AGRICULTURE OTHER THAN IRRIGATION
BPW	BRINE PRODUCTION WELL
COM	COMMERCIAL
CON	CONSTRUCTION
CPS	CATHODIC PROTECTION WELL
DAI	DAIRY OPERATION
DEW	DEWATERING WELL
DOM	72-12-1 DOMESTIC ONE HOUSEHOLD
EXP	EXPLORATION
FCD	FLOOD CONTROL
FGP	FISH AND GAME PROPOGATION
FPO	FEED PEN OPERATION
HWY	HIGHWAY CONSTRUCTION
IND	INDUSTRIAL
INJ	INJECTION
IRR	IRRIGATION
MDW	COMMUNITY TYPE USE - MDWCA, PRIVATE OR COMMERCIAL SUPPLIED
MFG	MANUFACTURING
MIL	MILITARY - MILITARY INSTALLATIONS
MIN	MINING OR MILLING OR OIL
MOB	MOBILE HOME PARKS
MON	MONITORING WELL
MPP	MEAT PACKING PLANT
MUL	72-12-1 MULTIPLE DOMESTIC HOUSEHOLDS
MUN	MUNICIPAL - CITY OR COUNTY SUPPLIED WATER
NON	NON-PROFIT ORGANIZATIONAL USE
NOT	NO USE OF RIGHT OR POD
NRT	NO RIGHT
OBS	OBSERVATION
OFM	OIL FIELD MAINTENANCE
OIL	OIL PRODUCTION

POL	POLLUTION CONTROL WELL
POU	POULTRY AND EGG OPERATION
PPP	PETROLEUM PROCESSING PLANT
PRO	72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE
PUB	2-12-1 CONSTRUCTION OF PUBLIC WORKS
REC	RECREATION
SAN	72-12-1 SANITARY IN CONJUNCTION WITH A COMMERCIAL USE
SCH	SCHOOL USE - PUBLIC, PRIVATE, PAROCHIAL, & UNIVERSITIES
SRO	SECONDARY RECOVERY OF OIL
STK	72-12-1 LIVESTOCK WATERING
STO	STORAGE
SUB	SUBDIVISION
UTL	PUBLIC UTILITY

WATERS - Document Type Codes
(Water Administration Technical Engineering Resource System)

Last Modified: 8/02/2001

DOCUMENT TYPE CODES

Document Code	Description
72121	All Applications Under Statute 72-12-1
ADJ	Adjust Filing Fee / Payment
ADM	Administrative Permit (Not Published)
ALTD	App for Alternate POD (Surface)
APPRO	Application to Appropriate
CLW	Change Location of Well (Ground)
CLWPL	Change Location of Well & Place of Use (Ground)
CLWPP	Change Location Well & Place & Purpose of Use (GW)
CLWPU	Change Location of Well & Purpose of Use (Ground)
COMB	App to Combine &/or Comingle Existing Right
COWNF	Change of Ownership Full
COWNP	Change of Ownership Partial (split water right)
CPD	Change Point of Diversion (Surface)
CPDPL	Change POD & Place of Use (Surface)
CPDPP	Change POD & Place &/or Purpose of Use (Surface)
CPDPU	Change POD & Purpose of Use (Surface)
CPLA	Change Place of Use (Ground)
CPLAS	Change Place of Use (Surface)
CPPSW	Change Place &/or Purpose of Use (Surface)
CPPU	Change Place & Purpose of Use (Ground)
CPUR	Change Purpose of Use (Ground)
CPURS	Change Purpose of Use (Surface)
DCL	Declaration of a Water Right
DED	Dedication
ENLRG	Application to Enlarge an Existing Right
ET	Extension of Time Ground Water
ETS	Extension of Time Surface Water
EXPL	Permit To Explore
FCDAM	Flood Control Dam
GTSPP	Change POD & Place & Purpose of Use (GW to SW)
GWTSW	Change POD (from Ground to Surface)

HRG	Hearing Request
LIC	License
NOIAP	Notice of Intention to make Application for Permit
ORDER	Order of District Court
PAY	Payment
PBU	Proof of Benaficial Use Filing
PCW	Proof of Completion of Works Filing
REPAR	Application To Repair Well
RFP	Return Flow Plan
STGPP	Change POD & Place &/or Purpose of Use (SW to GW)
SUPPL	Application for Supplemental Well (Ground)
SWTGW	Change POD (from Surface to Ground)
XPOD	Extra POD(s) in an Application (Surface)
XWELL	Extra Well(s) in an Application (Ground)

Olson, William

From: gerard.t.smith@exxonmobil.com
Sent: Friday, January 18, 2002 2:04 PM
To: wolson@state.nm.us
Subject: Windmill Oil Work

Bill: This is just a brief note to inform you of ongoing work activities at the Windmill Site - Section 30 - Hobbs. As you know Cliff Brunson was asked to do some initial data collection for the industry work group which was requested to review this issue. I had an opportunity earlier this week to meet with Cliff in Hobbs and review the status of this work. Among other things BBC International is generating a Windmill Oil well map for us as well as maps of all known water wells and oil wells, locating and mapping various oil facilities such as tank batteries and pits, and doing some geochemical speciation work for us. This work should be completed in Feb.and sometime after that we will reconvene the technical work group to review this information and to discuss possible next steps. I will advise you of future progress. In the meantime please feel free to call me with any questions or concerns you might have. Regards,

Jerry Smith
Project Manager
ExxonMobil Global Remediation
713-656-9185 (office)
281-381-1593 (cell)
713-656-9191 (fax)

IMPORTANT MESSAGE

FOR _____ 3:43

DATE 4/20 TIME 2:35 A.M. P.M.

M Clay Osborne

OF _____

PHONE _____
AREA CODE NUMBER EXTENSION

☐ FAX

☐ MOBILE _____
AREA CODE NUMBER TIME TO CALL

TELEPHONED		PLEASE CALL	
CAME TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		RUSH	
RETURNED YOUR CALL		SPECIAL ATTENTION	

MESSAGE Summers Expl. Co.

MNA
Scott Kimbrough
201 West Wall Suite 803
Midland, TX 79701
(915) 682 2500

SIGNED

IMPORTANT MESSAGE

FOR _____

DATE 11/15 TIME 2:59 A.M. P.M.

M Lynn Bortha

OF BP

PHONE _____
AREA CODE NUMBER EXTENSION

☐ FAX

☐ MOBILE _____
AREA CODE NUMBER TIME TO CALL

TELEPHONED		PLEASE CALL	
CAME TO SEE YOU		WILL CALL AGAIN	✓
WANTS TO SEE YOU		RUSH Mon	
RETURNED YOUR CALL		SPECIAL ATTENTION	

MESSAGE _____

ready to move forward

agreen

& Chevron BP, Arco, Amoco, Texaco, Oxy

Exxon, Amerada, McMoRan

SIGNED

Phase I reception survey

TOPS. FORM 3002P LITHO IN U.S.A.

IMPORTANT MESSAGE

FOR _____

DATE 10/3 TIME 6:02 A.M. P.M.

M Lyn Bartha

OF _____

PHONE _____
AREA CODE NUMBER EXTENSION

☐ FAX

☐ MOBILE _____
AREA CODE NUMBER TIME TO CALL

TELEPHONED		PLEASE CALL	
CAME TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		RUSH	
RETURNED YOUR CALL		SPECIAL ATTENTION	

MESSAGE _____

16th in Midland

SIGNED

TOPS FORM 3002P
LITHO IN U.S.A.

IMPORTANT MESSAGE

FOR

DATE 10/1 TIME 12:38 ☐ A.M. ☐ P.M.

M Lyn Bortle

OF

PHONE 281 366 2651
AREA CODE NUMBER EXTENSION

☐ FAX

☐ MOBILE
AREA CODE NUMBER TIME TO CALL

TELEPHONED		PLEASE CALL	
CAME TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		RUSH	
RETURNED YOUR CALL		SPECIAL ATTENTION	

MESSAGE

meeting this week
technical Politics meeting
tell more

SIGNED

TOPS. FORM 3002P
LITHO IN U.S.A.

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal | Time 0945 | Date 9/19/01

Originating Party	Other Parties
Allan Eades - Eades Drilling	Bill Olson - Envir. Bureau
(505) 370-2957 (cell)	

Subject

Windmill Oil - Neal King Residence

Discussion

Drilled 2nd new water well for Neal King
Well is east of old well and completed at base of Ogallala
Well has 40' screen, from ≈ 170 - 130 ft.
~~Purged~~ Encountered oil on water table at ≈ 52 feet
Pumped for 3 hrs at 20 gal/min to develop well then sampled
Sample results in excess of stds for BTEX
I recommended additional pumping of well to see if it cleans up.

Conclusions or Agreements

He will try additional pumping, then sample well and get back to me.

Distribution
f/e
NMOCD Hobbs

Signed Will Olson

IMPORTANT MESSAGE

FOR _____

DATE 6/13 TIME 11:46 A.M. P.M.

M Alan Endes

OF _____

PHONE 320 - 2957 mobile
AREA CODE NUMBER EXTENSION

☐ FAX

☐ MOBILE 392 - 2457 office
AREA CODE NUMBER TIME TO CALL

TELEPHONED		PLEASE CALL	
CAME TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		RUSH	
RETURNED YOUR CALL		SPECIAL ATTENTION	

MESSAGE

replacement house well

30' west of Neal Kirby well

oil on mud pit

Chris + Paul reporting today

SIGNED

TOPS. FORM 3002P
LITHO IN U.S.A.

IMPORTANT MESSAGE

FOR _____

DATE 6/13 TIME 11:46 A.M. P.M.

M Alan Endes

OF _____

PHONE 320 - 2957 mobile
AREA CODE NUMBER EXTENSION

☐ FAX

☐ MOBILE 392 - 2457 office
AREA CODE NUMBER TIME TO CALL

TELEPHONED		PLEASE CALL	
CAME TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		RUSH	
RETURNED YOUR CALL		SPECIAL ATTENTION	

MESSAGE

displacement hours well

30' west of Neal Kirby well

oil on mud pit

Chris + Paul reporting today

SIGNED

TOPS. FORM 3002P
LITHO IN U.S.A.

Olson, William

From: Sheeley, Paul
Sent: Friday, June 15, 2001 9:59 AM
To: Olson, William
Cc: Williams, Chris
Subject: King water well, Eades Drilling-BTEX

Mr. Eades faxed the following BTEX results:

		[mg/L]	[WQCC]	[EPA Drink.H20]
TPH=3.87	Benzene	**0.009**	0.01	0.005
	Toluene	0.054	0.75	1
	Et.-benzene	0.121	0.75	0.7
	Tot.-xylenes	**0.649**	0.62	10

He has a pump and can purge at a decent flowrate.
I can ask him to do so, wait for it to recharge for about an hour and then bail some samples which may come back a little higher. These really don't look all that bad compared to Hobbs city...
Whadyathink?
PS

Olson, William

From: Sheeley, Paul
Sent: Wednesday, June 13, 2001 3:45 PM
To: Olson, William
Cc: Williams, Chris
Subject: King water well, west Hobbs

Hi Bill,
Alan Eades of Eades Drilling called us this morning about a water well he was drilling for a Mr. & Mrs. Neal King off of Mayhan Road...(here just about 0.4 mi. west of Hobbs). They quit when oil apparently started coming in their fluid. They took some samples, (to Cardinal), for TPH and BTEX and called us. I went to the location and met with Mr. Eades, his crew and Mr. King and took these photos. I allowed them to backfill their pit and secure the hole, for now.
Let me know what you want to do. They are waiting to hear from us as a courtesy; in case we want to sample...
Thanks, PS


king3.jpg


king5.jpg


king6.jpg


king8.jpg


king7.jpg


6. 13. 2001


6. 13. 2001

6.13.2001


6. 13. 2001


6. 13. 2001

Olson, William

From: Sheeley, Paul
Sent: Thursday, June 14, 2001 11:27 AM
To: Olson, William
Subject: King well, TPH

Alan Eades called and reported: TPH=3.87mg/L
They don't have the BTEX results yet.
PS

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

FAX

TO: Bill Olson

FROM: Paul Sheeley
Energy Minerals and Natural Resources Department,
Oil Conservation Division

RE: King Well - color cut 8-30-01

DATE: 9-25-02

Hi Bill,

Here is the color cut data where we measured 7' 11" oil on top of the groundwater in a well Enales drilled. Please call me to discuss the numbers.

Thanks Paul

2 Pages (Including Transmittal)

Blk "

at ground surface

Oil wade

John Erikson Cty
3932174

Phil Elliot - Conoco

Kenwade - Kersey & Co
(505) 365 8876

EOTT Leak Pat McCasland
Stopped Leak

SE Eunice

S. Dynegy Pl[illegible] Property

24" Dynegy Line
NM Dyn. Gas Co. N.M.
30 Barrels rec. 15

UL-G sec 3 T22S 37E

through Eunice to Texas Ave go east
then go north.

8-30-01 | KING Well

Courtney Birdwell | 3912942

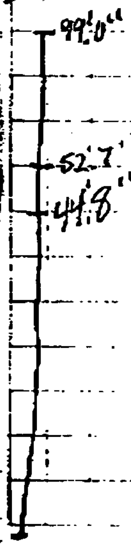
Ken Wade → 365 8876 → [illegible]
called → (505) 365 8876,

Gil [illegible] (915) 638-3106 No answer [illegible]

Clay Cooper #6 sec 24 20S 36E UL-J

Oil Well —

Wilson → Grimes 32 Lks W Brandy



52.7" Oil
44.8" H_2O

99.0
\- 52.7
46.5 oil

99.0
44.8
54.4 H_2O

54.4 H_2O
46.5 oil
7.11"

54'4" + 44'8" = 99'
46.5" + 52.7 = 99'

P.01

TRANSACTION REPORT

SEP-25-2002 WED 08:19 AM

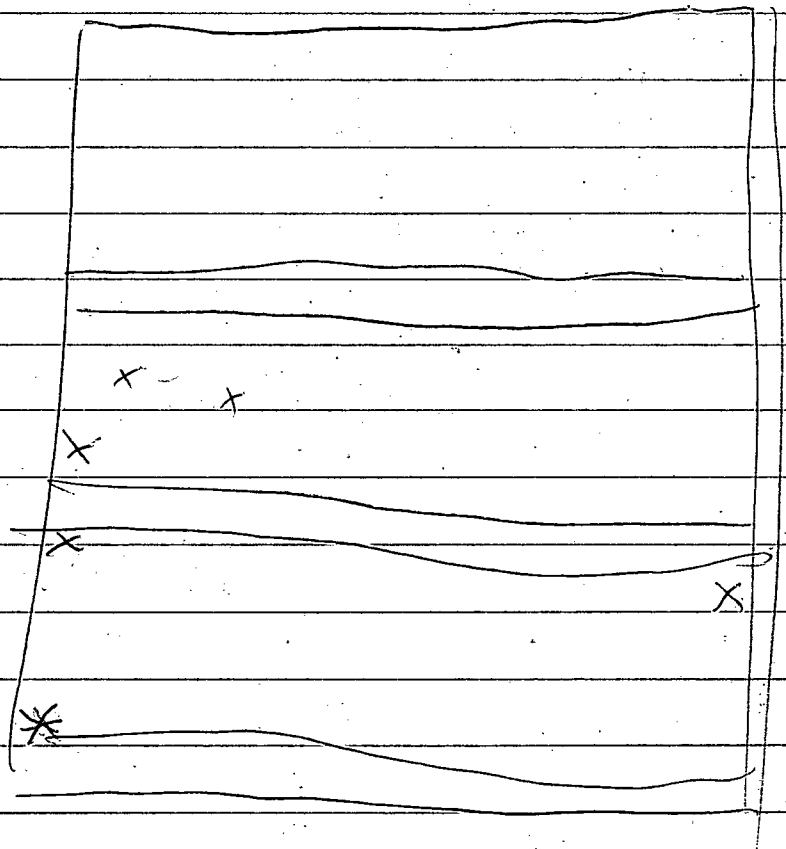
FOR:

RECEIVE

DATE	START	SENDER	RX TIME	PAGES	TYPE	NOTE	M#	DP
SEP-25	08:18 AM	15053939758	51″	2	RECEIVE	OK		

5/10/07 Bureau Meeting

- Casing leak interval
- BLM comments on report
- Estimate # wells
- Bradenhead testing - OCC order ?
  - District directive -
- Well Records - sec 30



5/25/01 OCC Hearing

1) TPH Work Groups - Paul Peacock - Marathon
(Committee Chair)

Want guidelines
Based on ASTM, NM UST

R.L. - How determine saturation for source

RCA - OCD will have public meetings in Hobbs, Artesia, Aztec

2) Cl Work Groups - Frank Gray - Texaco
(Committee Chair)

See Work Group Summary 5/25/01

LW - Other state standards? - API Waste Issues Group
looking into

8/30/01 Windmill Oil

Attendees - see attendance sheet

OCD
Oxy
BP
Exxon
Amerada Hess
Marathon
Texaco

Intro by Steve Ross

Needed
- extent
- source
- threats to public health
- what do we do about it.

Agreement?

Form 9-331a
(Feb., 1926)

U. S. Land Office Las Cruces

Serial Number 0[illegible]-A

Lease [illegible]

RECEIVED
MAY 1[illegible] 1930
U. S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT RECORD OF SHOOTING	
NOTICE OF INTENTION TO CHANGE PLANS		RECORD OF PERFORATING CASING	
NOTICE OF DATE FOR TEST OF WATER SHUT-OFF		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
REPORT ON RESULT OF TEST OF WATER SHUT-OFF		NOTICE OF INTENTION TO ABANDON WELL	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF ABANDONMENT	X
NOTICE OF INTENTION TO SHOOT		SUPPLEMENTARY WELL HISTORY	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

McCamey, Texas. May 13, 1930, 192

Following is a ~~notice of intention to do work~~ / report of work done on land under permit / lease described as follows:

New Mexico (State or Territory) — Lea (County or Subdivision) — Hobbs (Field)

Well No. 2 — SE¼ Sec. 30 (¼ Sec. and Sec. No.) — 18-South (Twp.) — 38-East (Range) — (Meridian)

The well is located 330 ft. {N/S} of N line and 330 ft. {E/W} of E line of sec. SE¼ Sec. 30

The elevation of the derrick floor above sea level is .... ft.

DETAILS OF PLAN OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work.)

Hole mudded from bottom (106') to 66' and cemented from 66' to bottom of cellar with 25 sacks cement. Cellar filled up and cemented with 15 sacks cement. One 10' joint of 9 5/8" casing set 5' in concrete, 5' protruding for permanent monument or marker. Condition around monument good.

Approved May 15, 1930 (Date)
E. A. Hanson
Title Deputy Supervisor
GEOLOGICAL SURVEY
Address Roswell, New Mexico.

Company Humble Oil & Refg. Co.
By [illegible]
Title Division Sup't.
Address McCamey, Texas.

NOTE.—Reports on this form to be submitted in *triplicate* to the Supervisor for approval.

GOVERNMENT PRINTING OFFICE 6—7053

A-238 D50527 (3-53)

COPY

HUMBLE OIL & REFINING COMPANY

HOUSTON 1, TEXAS
P. O. Box 1600

August 12, 1953

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. R. R. Spurrier
Secretary & Director

Gentlemen:

On August 2, 1953, we discovered a leak in the cellar of Federal-Bowers "A" No. 2 located on our Federal Bowers lease in the Hobbs Field, Lea County, New Mexico. Flow into the cellar was estimated at one barrel per hour. The cellar was dug out and the annulus between 12-1/2-inch and 9-5/8-inch casing was found to be flowing oil through a 1/2-inch valve on the 12-1/2-inch bradenhead. Flow was estimated at 2.5 barrels per hour.

Federal Bowers A-2 was originally completed in September, 1930, in open hole from the 7-inch casing set at 3960 feet to 4213 feet. The well was re-entered in September, 1947, and holes were located in the 7-inch oil string at 490 and 875 feet. These holes were repaired by perforating the 7-inch oil string at 1500 feet and circulating cement to the surface between the 7-inch and 9-5/8-inch casing. The hole was deepened to 4238 feet and a string of 5-1/2-inch casing was run inside the 7-inch casing set on bottom and cemented with 30 sacks. The 5-1/2-inch casing was perforated from 4010 to 4205 feet. A Baker production packer was set at 3940 feet and the well returned to production. A well completion diagram is attached.

After the cellar was cleaned out, the 5-1/2-inch oil string was tested with 1000 pounds pressure and found to hold pressure satisfactorily. A similar test was also made on the annulus between the 5-1/2-inch and 7-inch casing. This annular space was tested with 1000 pounds and was found to hold pressure satisfactorily.

COPY

HUMBLE OIL & REFINING COMPANY

HOUSTON 1, TEXAS

On August 5, 1953, a total of 1685 barrels of water was pumped into the producing interval from 4010 to 4205 feet. Injection pressures ranged from 900 to 1600 pounds. The flow on the 1/2-inch valve on the 12-1/2-inch bradenhead had increased to 15.5 barrels of oil per hour. On August 6 after pumping an additional 455 barrels of water into the producing interval, the Baker production packer at 3940 feet was drilled out and a retainer set at 4000 feet. The 5-1/2-inch oil string was perforated at 3976 feet with four shots and a Baker P & T tool was set at 3916 feet. A total of 300 barrels of water was pumped through the perforations at 3976 feet in ten hours. The average injection pressure was 2100 pounds. A temperature survey, Delta log and potential survey were run. A bridge plug was set at 3795 feet and the 5-1/2-inch casing perforated from 3677 to 3678 feet with four shots. A total of 900 barrels of water was injected through perforations from 3677 to 3678 feet. Injection rates ranged from 16 to 60 barrels per hour and injection pressures from 2700 to 3800 pounds. As of August 8, 1953, the oil flow on the bradenhead had increased to 18.5 barrels per hour.

The results of these tests indicate that the oil flow on the 12-1/2-inch bradenhead of Humble Federal Bowers A-2 is not the direct result of a casing leak in Bowers A-2. Humble is now in the process of conducting temperature surveys in its other wells in the area in an effort to locate any possible casing leaks which might serve as a source for the oil flow noted in the bradenhead at Federal Bowers A-2. The characteristics of the oil being produced from the 12-1/2-inch bradenhead at Bowers A-2 indicate that the San Andres is the source of this oil. Humble has contacted offset operators and advised them of the situation at Bowers A-2.

We request that we be issued such tenders as are necessary, covering the oil produced from the bradenhead on this well during the period that it continues to flow; in the meanwhile, Humble will continue diligently its efforts to locate and control the source of the oil now being produced from the 12-1/2-inch bradenhead of the Federal Bowers A-2 well.

Yours very truly,

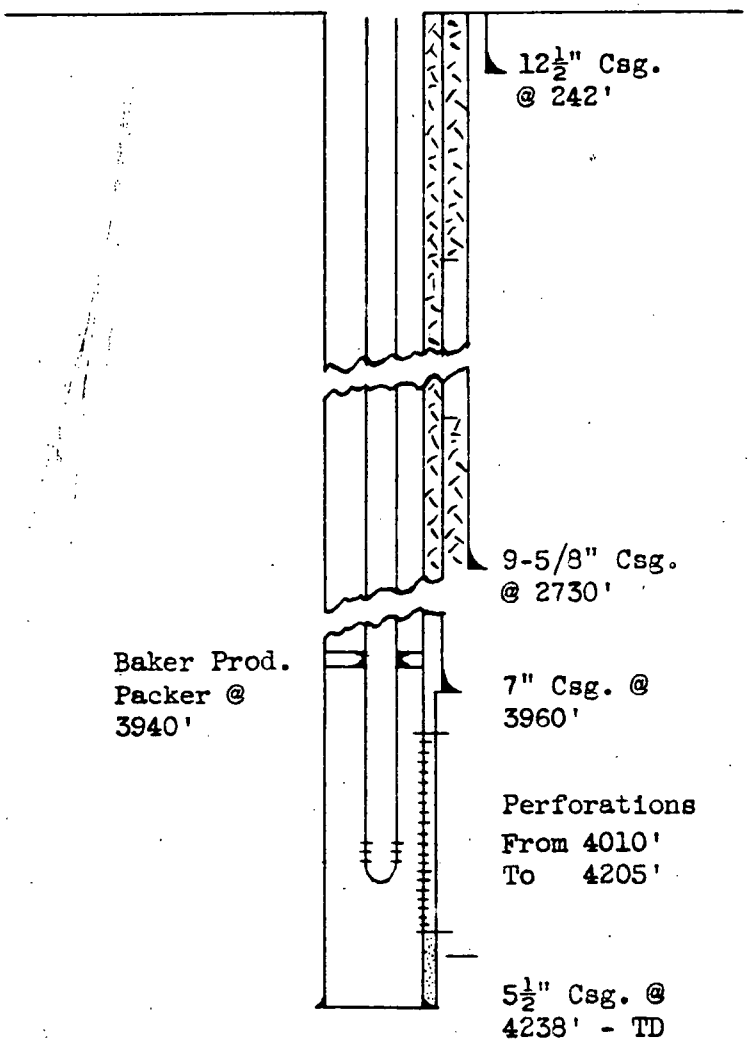
HUMBLE OIL & REFINING COMPANY

By_____
J. W. House

DES:WDM:ls
cc: Mr. A. L. Porter
P. O. Box 2045
Hobbs, New Mexico

Mr. R. S. Dewey-Bldg.
Mr. M. M. Rogers-Hobbs

Well Completion Diagram
Federal Bowers A-2



COPY

HUMBLE OIL & REFINING COMPANY

HOUSTON 1, TEXAS
P. O. Box 1600

August 12, 1953

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. R. R. Spurrier
Secretary & Director

Gentlemen:

On August 2, 1953, we discovered a leak in the cellar of Federal-Bowers "A" No. 2 located on our Federal Bowers lease in the Hobbs Field, Lea County, New Mexico. Flow into the cellar was estimated at one barrel per hour. The cellar was dug out and the annulus between 12-1/2-inch and 9-5/8-inch casing was found to be flowing oil through a 1/2-inch valve on the 12-1/2-inch bradenhead. Flow was estimated at 2.5 barrels per hour.

Federal Bowers A-2 was originally completed in September, 1930, in open hole from the 7-inch casing set at 3960 feet to 4213 feet. The well was re-entered in September, 1947, and holes were located in the 7-inch oil string at 490 and 875 feet. These holes were repaired by perforating the 7-inch oil string at 1500 feet and circulating cement to the surface between the 7-inch and 9-5/8-inch casing. The hole was deepened to 4238 feet and a string of 5-1/2-inch casing was run inside the 7-inch casing set on bottom and cemented with 30 sacks. The 5-1/2-inch casing was perforated from 4010 to 4205 feet. A Baker production packer was set at 3940 feet and the well returned to production. A well completion diagram is attached.

After the cellar was cleaned out, the 5-1/2-inch oil string was tested with 1000 pounds pressure and found to hold pressure satisfactorily. A similar test was also made on the annulus between the 5-1/2-inch and 7-inch casing. This annular space was tested with 1000 pounds and was found to hold pressure satisfactorily.

COPY

HUMBLE OIL & REFINING COMPANY

HOUSTON 1, TEXAS

On August 5, 1953, a total of 1685 barrels of water was pumped into the producing interval from 4010 to 4205 feet. Injection pressures ranged from 900 to 1600 pounds. The flow on the 1/2-inch valve on the 12-1/2-inch bradenhead had increased to 15.5 barrels of oil per hour. On August 6 after pumping an additional 455 barrels of water into the producing interval, the Baker production packer at 3940 feet was drilled out and a retainer set at 4000 feet. The 5-1/2-inch oil string was perforated at 3976 feet with four shots and a Baker P & T tool was set at 3916 feet. A total of 300 barrels of water was pumped through the perforations at 3976 feet in ten hours. The average injection pressure was 2100 pounds. A temperature survey, Delta log and potential survey were run. A bridge plug was set at 3795 feet and the 5-1/2-inch casing perforated from 3677 to 3678 feet with four shots. A total of 900 barrels of water was injected through perforations from 3677 to 3678 feet. Injection rates ranged from 16 to 60 barrels per hour and injection pressures from 2700 to 3800 pounds. As of August 8, 1953, the oil flow on the bradenhead had increased to 18.5 barrels per hour.

The results of these tests indicate that the oil flow on the 12-1/2-inch bradenhead of Humble Federal Bowers A-2 is not the direct result of a casing leak in Bowers A-2. Humble is now in the process of conducting temperature surveys in its other wells in the area in an effort to locate any possible casing leaks which might serve as a source for the oil flow noted in the bradenhead at Federal Bowers A-2. The characteristics of the oil being produced from the 12-1/2-inch bradenhead at Bowers A-2 indicate that the San Andres is the source of this oil. Humble has contacted offset operators and advised them of the situation at Bowers A-2.

We request that we be issued such tenders as are necessary, covering the oil produced from the bradenhead on this well during the period that it continues to flow; in the meanwhile, Humble will continue diligently its efforts to locate and control the source of the oil now being produced from the 12-1/2-inch bradenhead of the Federal Bowers A-2 well.

Yours very truly,

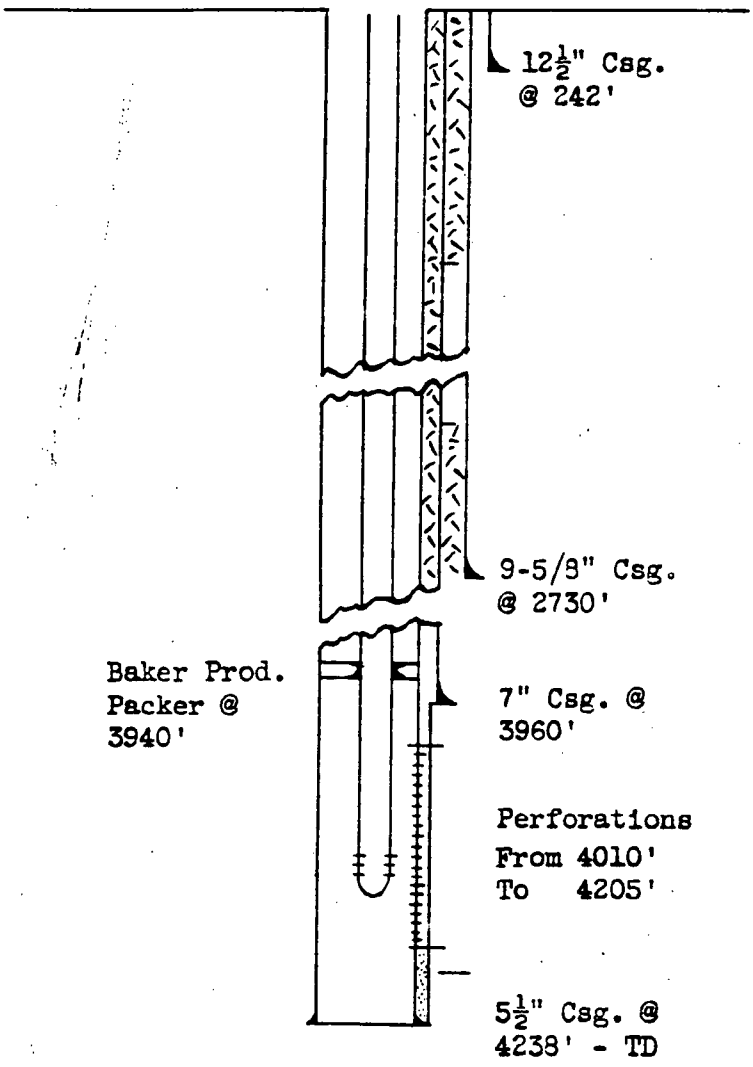
HUMBLE OIL & REFINING COMPANY

By_____
J. W. House

DES:WDM:ls
cc: Mr. A. L. Porter ✓
P. O. Box 2045
Hobbs, New Mexico

Mr. R. S. Dewey-Bldg.
Mr. M. M. Rogers-Hobbs

Well Completion Diagram
Federal Bowers A-2



WINDMILL MEETING, 8/30/01

1 Michael T. Morrone, BP, Amerada, Oxy, Marathon
2 Cliff P. Brunson, BBC Intl., 505-397-6388
3 Stephen Ross, NMOCD
4 Lynn Bortka bp:
5 Roger Anderson NMOCD
6 David Brooks NMOCD
7 Carolyn Tillman Oxy Permian
8 Sam Small Amerada
9 Melvin Hawkins Oxy Services
10 Michael Conner Exxon Mobil Corp 713-656-1628
11 Jerry Smith Exxon/Mobil 713-656-9185
12 DAVID BOYCE BP 303-830-3255
13 Bob Hill BP 281-366-5790
14 KURT KRITER Amerada Hess 713-609-4200
15 Dennis Smith Amerada Hess 713-609-4457
16 Jerry Guthrie Marathon Oil 915-687-8128
17 Tom Lowry Marathon Oil 915-687-8170
18 Robert Patterson Texaco 915-688-4836
19 Marte D. Lightstone Miller, Stratvert, Torgerson (Texaco) 505 842-4704
20 Bill Olson NMOCD (505) 476-3491
21 John Eldridge Haynes and Boone 713 547-2229

OGALLALA FORMATION
Lea County, New Mexico

Order No. R-3288, Adopting Operating Rules for the Production of Oil from the Ogallala Formation, Lea County, New Mexico, August 1, 1967.

Application of Charles E. Seed for Four Ogallala Oil Proration Units and Special Rules, Lea County, New Mexico.

CASE NO. 3628
Order No. R-3288

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on July 26, 1967, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of August, 1967, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Charles E. Seed, seeks authority to develop each of the quarter-quarter sections comprising the SW/4 of Section 30, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico, for the production of oil from the Ogallala formation to a maximum density of one well per 0.625-acre tract with no well being nearer than 82.5 feet to the outer boundary of a 40-acre unit and no nearer than 165 feet to another oil well producing from the Ogallala formation, provided that an exception should be made for existing wells located on the aforesaid tracts which are not located in conformance with said spacing rules.

(3) That the applicant also seeks a temporary exception to Rule 307 of the Commission Rules and Regulations for each well to be drilled on the aforesaid quarter-quarter sections to the Ogallala formation in order to permit the utilization of a vacuum-type drilling unit during the drilling and completion of said wells.

(4) That the applicant further seeks authority to produce all wells, authorized by this order, on each 40-acre unit at capacity even though the aggregate production from said wells exceeds the 40-acre normal unit allowable.

(5) That the Ogallala formation is the major source of fresh water in the Lea County Underground Water Basin as declared by the State Engineer.

(6) That the oil existing in the Ogallala formation is not the result of a natural accumulation of oil and, therefore, does not constitute an oil pool as commonly understood in the oil and gas business.

(7) That the presence of oil in the Ogallala formation constitutes a hazard to the fresh water supplies therein.

(8) That said oil should be removed from the Ogallala formation, a fresh water aquifer, as quickly and efficiently as possible.

(9) That the utilization as proposed by the applicant of a vacuum-type drilling unit during the drilling and completion of said wells will not damage any stratum containing oil or gas.

(10) That in order to facilitate the removal of oil, an adulterous substance when present in the Ogallala formation, from said aquifer, the applicant should be authorized to develop the aforesaid quarter-quarter sections for the production of oil from the Ogallala formation to the density requested by the applicant, to utilize a vacuum-type drilling unit during drilling and completion of said wells, and to produce said wells at capacity.

(11) That the applicant, Charles E. Seed, is the owner of four "water" wells located in the aforesaid quarter section and drilled under authority granted by the State Engineer.

(12) That said four "water" wells are capable of and are producing oil from the Ogallala formation.

(13) That upon expiration of the water well permits authorizing the aforesaid four "water" wells, said wells should be classified as oil wells.

IT IS THEREFORE ORDERED:

(1) That the applicant, Charles E. Seed, is hereby authorized to develop each of the quarter-quarter sections comprising the SW/4 of Section 30, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico, to a maximum density of one well per 0.625-acre tract for the purpose of removing oil from the Ogallala formation, a fresh water aquifer.

PROVIDED HOWEVER, that no well shall be drilled nearer than 8.5 feet to the outer boundary of a 40-acre tract and no nearer than 165 feet to another oil well located on said tract.

(2) That the locations of the four "water" wells presently completed in and producing oil from the Ogallala formation are hereby approved as oil wells, effective upon the termination of the water well permits authorizing said wells; that the operator of the four "water" wells shall notify the Hobbs District Office of the Commission in writing of the name and location of said four wells upon expiration of the water well permits and shall also file with said office Forms C-101 and C-102 in accordance with Rules 1101 and 1102 of the Commission Rules and Regulations.

(3) That the applicant is hereby authorized, as an exception to Rule 307 of the Commission Rules and Regulations, to utilize a vacuum-type drilling unit during the drilling and completion of each of the oil wells authorized by Order No. (1) of this order.

(4) That the applicant is hereby authorized to produce each of the wells authorized by this order at maximum capacity until further order of the Commission.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

(SLICK ROCK-DAKOTA POOL - Cont'd.)

from the same pool; provided, however, that in no event shall said well or wells be completed or recompleted nearer than 165 feet to the boundary of acreage owned by an offset operator.

RULE 3. The Secretary-Director of the Commission shall have authority to grant exceptions to Rule 2 without notice and hearing where an application therefor has been filed in due form and the necessity for the exception is based on topographical conditions.

All operators owning acreage within 330 feet of the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators owning acreage within 330 feet of the proposed location or if no such operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

RULE 4. A 40-acre proration unit shall not produce in excess of the 40-acre top unit allowable for wells in the 0-5000 foot depth range in Northwest New Mexico, regardless of the number of wells on the unit.

IT IS FURTHER ORDERED:
(1) That the locations of all wells presently drilling to or completed in the Slick Rock-Dakota Oil Pool or in the Dakota formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Aztec District Office of the Commission in writing of the name and location of the well on or before June 15, 1967.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

OGALLALA FORMATION
Lea County, New Mexico

Order No. R-3261, Adopting Operating Rules for the Production of Oil from the Ogallala Formation, Lea County, New Mexico, June 16, 1967.

Application of Amerada Petroleum Corporation for an Ogallala Oil Proration Unit, Special Rules for Said Unit and Authority for Fresh Water Disposal, Lea County, New Mexico.

CASE NO. 3594
Order No. R-3261

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on June 6, 1967, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 16th day of June, 1967, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:
(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Amerada Petroleum Corporation, seeks authority to develop the SE/4 NW/4 of Section 30, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico, for the production of oil from the Ogallala formation to a maximum density of one well per 0.625-acre tract with no well being nearer than 82.5 feet to the outer boundary of the unit and no nearer than 165 feet to another oil well producing from the Ogallala formation, provided that an exception should be made for existing wells located on the aforesaid tract which are not located in conformance with said spacing rules.

(3) That the applicant also seeks a temporary exception to Rule 307 of the Commission Rules and Regulations for each well to be drilled on the aforesaid quarter-quarter section to the Ogallala formation in order to permit the utilization of a vacuum-type drilling unit during the drilling and completion of said wells.

(4) That the applicant further seeks authority to produce all wells authorized by this order at capacity even though the aggregate production from said wells exceeds the 40-acre normal unit allowable.

(5) That the Ogallala formation is the major source of fresh water in the Lea County Underground Water Basin as declared by the State Engineer.

(6) That the oil existing in the Ogallala formation is not the result of a natural accumulation of oil and, therefore, does not constitute an oil pool as commonly understood in the oil and gas business.

(7) That the presence of oil in the Ogallala formation constitutes a hazard to the fresh water supplies therein.

(8) That said oil should be removed from the Ogallala formation, a fresh water aquifer, as quickly and efficiently as possible.

(9) That the utilization as proposed by the applicant of a vacuum-type drilling unit during the drilling and completion of said wells will not damage any stratum containing oil or gas.

(10) That in order to facilitate the removal of oil, an adulterous substance when present in the Ogallala formation, from said aquifer, the applicant should be authorized to develop the aforesaid quarter-quarter section for the production of oil from the Ogallala formation to the density requested by the applicant, to utilize a vacuum-type drilling unit during drilling and completion of said wells, and to produce said wells at capacity.

(11) That the applicant, Amerada Petroleum Corporation, is the owner of two "water" wells located in the aforesaid quarter-quarter section and drilled under authority granted by the State Engineer.

(12) That said two "water" wells are capable of and are producing oil from the Ogallala formation.

(13) That upon expiration of the water well permits authorizing the aforesaid two "water" wells, said wells should be classified as oil wells.

(OGALLALA FORMATION - Cont'd.)

(14) That applicant's request for authority to dispose of fresh water produced with the oil back into the Ogallala formation was dismissed, at the request of the applicant, without prejudice to the right of the applicant to utilize surface pits for the disposal of water to be produced with oil produced from the Ogallala formation.

IT IS THEREFORE ORDERED:
(1) That the applicant, Amerada Petroleum Corporation, is hereby authorized to develop the SE/4 NW/4 of Section 30, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico, to a maximum density of one well per 0.625-acre tract for the purpose of removing oil from the Ogallala formation, a fresh water aquifer;

PROVIDED, HOWEVER, that no well shall be drilled nearer than 82.5 feet to the outer boundary of said tract and no nearer than 165 feet to another oil well located on said tract.

(2) That the locations of the two "water" wells presently completed in and producing oil from the Ogallala formation are hereby approved as oil wells, effective upon the termination of the water well permits authorizing said wells; that the operator of the two "water" wells shall notify the Hobbs District Office of the Commission in writing of the name and location of said two wells upon expiration of the water well permits and shall also file with said office Forms C-101 and C-102 in accordance with Rules 1101 and 1102 of the Commission Rules and Regulations.

(3) That the applicant is hereby authorized, as an exception to Rule 307 of the Commission Rules and Regulations, to utilize a vacuum-type drilling unit during the drilling and completion of each of the oil wells authorized by Order No. (1) of this order.

(4) That the applicant is hereby authorized to produce each of the wells authorized by this order at maximum capacity until further order of the Commission.

(5) That jurisdication of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

CARLSBAD PERMO-PENNSYLVANIAN GAS POOL
Eddy County, New Mexico

Order No. R-3282-A, Rescinding the Temporary Operating Rules Adopted for the Carlsbad Permo-Pennsylvanian Gas Pool, Eddy County, New Mexico, October 1, 1974.

In the Matter of Case 3608 Being Reopened Pursuant to the Provisions of Order No. R-3282, Which Order Established Temporary Rules for the Carlsbad Permo-Penn Gas Pool, Eddy County, New Mexico, Including a Provision for 640-Acre Spacing.

CASE NO. 3608
Order No. R-3282-A

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on July 10, 1974, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 30th day of July, 1974, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:
(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That by Order No. R-3282, dated July 27, 1967, temporary rules were promulgated for the Carlsbad Permo-Penn Gas Pool, Eddy County, New Mexico, establishing temporary 640-acre spacing units.

(3) That pursuant to the provisions of Order No. R-3282, this case was reopened to allow the operators in the subject pool to appear and show cause why the Carlsbad Permo-Penn Gas Pool should not be developed on 320-acre spacing units.

(4) That no cause was shown why said pool should not be developed on 320-acre spacing.

(5) That in order to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the temporary rules promulgated by Order No. R-3282 should be rescinded and the pool should be governed by the Statewide Rules for gas pools of Pennsylvanian age or older, effective October 1, 1974.

IT IS THEREFORE ORDERED:
(1) That the Temporary Rules governing the Carlsbad Permo-Penn Gas Pool, Eddy County, New Mexico, promulgated by Order No. R-3282, are hereby rescinded, effective October 1, 1974.

(2) That after October 1, 1974, the Permo-Penn Gas Pool shall be governed by the Statewide Rules for gas pools of Pennsylvanian age or older.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

June 20, 1960

COPY

Mr. A. L. Porter, Jr., Secretary-Director
Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico

Subject: Hobbs Area Annual Witnessed Casing Leak Surveys for 1959 and 1960

Dear Mr. Porter:

In accordance with Memorandum No. 33-57, Commission witnessed casing leak surveys were conducted in the Hobbs, Bowers, Byers-Queen Gas, and Hobbs-Drinkard Pools during the second quarters of 1959 and 1960.

Throughout the witnessed survey in 1959, no leaks were discovered.

During the 1960 test period, a total of two leaks were found. Both of these leaks were in the Bradenhead connections and were repaired immediately upon discovery. The method used in repairing these leaks was to replace the packing element in each well. Total expenses for repairing these two wells amounted to $1,302.13.

In view of the favorable findings during Commission witnessed surveys, it is our recommendation that they be continued.

Yours very truly,

OIL CONSERVATION COMMISSION

Leslie A. Clements
Oil and Gas Inspector

LAC:mg
Copies to
J. D. Ramey
E. F. Engbrecht

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

April 20, 1960

Shell Oil Company
Post Office Box 845
Roswell, New Mexico

Subject: Annual Casing Leak Survey
Hobbs Area - April 6-7, 1960

Gentlemen:

During the Annual Witnessed Casing Leak Survey in the Hobbs Pool, the following wells showed noticeable leaks at wellhead flanges:

Berry No. 4	Unit O	Section 31-T18S-R38E
McKinley "A" No. 2	Unit O	Section 19-T18S-R38E
McKinley "A" No. 4	Unit N	Section 19-T18S-R38E
McKinley "A" No. 5	Unit J	Section 19-T18S-R38E
McKinley "A" No. 8	Unit I	Section 19-T18S-R38E
Rice No. 1	Unit P	Section 13-T18S-R38E
State "A" No. 4	Unit J	Section 32-T18S-R38E

The above wells are in violation of Rule 3, paragraph (b) NMOCC RULES AND REGULATIONS, and these wellhead flanges should be tightened to stop all leaks.

Also, it was found that the wells listed below did not haves risers or connections from the annular space between the surface string and the intermediate string, nor were Form C-102 or Form C-103 (Options 1 and 2) filed with the Commission to indicate that the annular space had been cemented. Therefore, these wells cannot be exempted from this survey unless cementing has been performed and the appropriate form filed with the Commission.

Berry No. 3	Unit I	Section 31-T18S-R38E
McKinley "A" No. 2	Unit O	Section 19-T18S-R38E
McKinley "A" No. 4	Unit N	Section 19-T18S-R38E
McKinley "A" No. 8	Unit I	Section 19-T18S-R38E

COPY

Shell Oil Company
Subject: Annual Casing Leak Survey

McKinley "B" No. 4	Unit L	Section 19-T18S-R38E
Sanger No. 3	Unit L	Section 27-T18S-R38E
Grimes No. 2	Unit L	Section 28-T18S-R38E
Rice No. 2	Unit O	Section 13-T18S-R37E
Rice No. 3	Unit I	Section 13-T18S-R37E
State "A" No. 3	Unit G	Section 32-T18S-R38E
State "A" No. 4	Unit H	Section 32-T18S-R38E
State "B" No. 1	Unit N 20,	Section 33-T18S-R38E
State "B" No. 2	Unit C	Section 33-T18S-R38E
State "D" No. 1	Unit F	Section 24-T18S-R37E
Thorpe No. 1	Unit J	Section 10-T19S-R38E

Further, due to most cellars having waste oil and water on all connections, it was impossible to be sure from which string the existing risers originated.

Retest dates are tentatively set up for May 11-12, 1960. May we point out that failure to comply with these requirements will result in cancellation of allowables for wells involved.

Yours very truly,

OIL CONSERVATION COMMISSION

Joe D. Ramey
Proration Manager

JDR:mg

Shell Oil Company
Box [illegible]
Roswell, New Mexico

[illegible]-7, 1960

Gentlemen:

During the Annual Witnessed Casing Leak Survey in the Hobbs Pool, the following wells showed [illegible] flanges:

Berry No. 4	Unit G	Section 31-T18S-R38E
McKinley "A" No. 2	Unit [illegible]	Section 19-T18S-R38E
McKinley "A" No. 4	[illegible]	Section 19-T18S-R38E
McKinley "A" No. 5	[illegible]	Section 19-T18S-R38E
McKinley "A" No. 8	Unit I	Section 19-T18S-R38E
Rice No. 1	Unit P	Section 13-T18S-R37E
State "A" No. 4	Unit J	Section 32-T18S-R38E

The above wells are in violation of Rule 1, paragraph (b) HOBBS RULES AND REGULATIONS, and these wellhead flanges should be tightened to stop all leaks.

Also, it was found that the wells listed below did not have risers or connections from the annular space between the surface string and the intermediate string, nor were Form C-103 or Form C-103 (Options 1 and 2) filed with the Commission to indicate that the annular space had been cemented. Therefore, these wells cannot be exempted from this survey unless cementing has been performed and the appropriate form filed with the Commission.

Berry No. 3	Unit I	Section 31-T18S-R38E
McKinley "A" No. 2	Unit O	Section 19-T18S-R38E
McKinley "A" No. 4	Unit N	Section 19-T18S-R38E
McKinley "A" No. 8	Unit I	Section 19-T18S-R38E

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. BOX 2045

HOBBS, NEW MEXICO

To: All operators in the Hobbs, Bowers, Byers Queen Gas and Hobbs Drinkard Pools.

In accordance with the memorandum issued by the District Engineer pertaining to casing pressure tests in the above-named pools, the following wells will be readied for an annual inspection in the manner and on the date as herein outlined.

1. All wells must be shut in 24 hours before inspection will be witnessed

2. All cellars will be dug in a manner to expose the outlets of all bradenheads from the first string of pipe cemented in the well and to expose all subsequent heads to and including the tubing head, unless a C-103 has been filed, indicating satisfactory connections below the ground level and with proper identification above ground level.

3. One opening from all bradenheads will be connected above the surface of the ground with a second valve. The second valve must be closed in compliance with paragraph number one.

4. The operator must furnish connections and personnel who will assist in the opening of valves. Pressure gauges to record pressures should also be furnished, if possible.

5. The Proration Manager will be notified of a well that has failed to meet the requirement of preparation as outlined on the date-time schedule, and such well will be immediately removed from the proration schedule. The loss of allowable will begin from the date of the bradenhead inspection of the well.

6. If, due to unusual mechanical difficulties or workover operations, a particular well cannot be made ready at the time set forth on the schedule, its test date may be delayed after inspection of the conditions by the Commission representative. The Commission should be notified at least 48 hours prior to test time for well or wells that require such delays.

7. The Commission expects company personnel to be present at the meeting place on the date and time indicated on the attached schedule. If for any reason the operator or his representative cannot be present, the Commission must be notified in advance.

   In every case, the Commission representative will meet the company personnel at the place and time shown on the schedule and proceed to all listed wells in logical order.

8. For further information or questions, please contact Eric Engbrecht, Express 3-6161, Hobbs, New Mexico.

   Following is a tabulation of the time-date schedule of the wells to be tested in the annual witnessed survey.

SCHEDULE FOR HOBBS AREA

Date-April 1, 1958

Operator-AMERADA PETROLEUM CORP-Meet at Hardin #1-M, 18-18-38 at 7:30 A.M.
25 wells

Hardin	1-M	18-18-38
"	2-N	"
"	3-L	"
Hardin B	4-N	18-18-36
McKinley	1-D	30-18-38
"	2-F	"
"	3-C	"
"	4-E	"
"	5-F	"
"	6-C	"
State A	1-B	32-18-38
"	2-A	"
"	3-B	32-18-38 (Status)
State B	1-F	29-18-38
"	2-G	"
"	3-B	"
"	4-C	"
"	5-G	"
"	6-F	"
State C	1-A	36-18-37
"	2-H	"
"	3-G	"
State E	1-C	24-18-37
"	2-C	"
State WH "B"	1-O	14-18-37

Date-April 2, 1958

Operator-Tidewater & Getty Oil Co.-Meet at Tidewater Camp at Hobbs at 7:30 A.M.
15 wells

Grimes	1-I	29-18-38
"	3-I	"
"	4-H	"
Hardin	1-G	19-18-38
"	2-H	"
"	3-B	"
"	4-A	"
McKinley	1-G	30-18-38
"	2-H	"
"	3-H	"
"	4-B	"
"	5-A	"
"	6-G	"
"	7-B	"
State B	1-H	14-18-37

Date-April 3, 1958

Operator-CONTINENTAL OIL CO-Meet at Continental Office on N. Turner at 7:30 A.M.
32 wells

Grimes	1-O	28-18-38
"	2-P	"
"	3-J	"
"	4-I	"
"	5-O	" (Status)
"	6-K	" (Status)
State A-5	1-J	5-19-38
"	2-O	"
State A-29	1-J	29-19-38
"	2-N	"
"	3-K	"
"	4-J	"
"	5-K	"
"	6-N	"
State A-33	1-M	33-18-38
"	2-L	"
"	3-K	"
"	4-J	"
"	5-O	"
"	6-N	"
"	7-G	"
"	9-M	"
"	10-K	"
"	11-G	"
State B-13	1-N	13-18-37
"	2-M	"
"	4-F	"
"	5-E	"
"	6-C	"
State B-25	1-C	25-18-37
"	2-D	"
State A-33	8-L	33-18-38

Date-April 7, 1958

Operator-SHELL OIL COMPANY-Meet at McKinley A #1-M, 19-18-38 at 7:30 A. M.
28 wells

Berry	1-P	31-18-38
"	2-J	31-18-38
"	3-I	'
"	4-O	"
"	6-P	"
"	7-J	"
Grimes	1-M	28-18-38
"	2-L	"
"	3-K	"
"	4-N	"
McKinley A	1-M	19-18-38
"	2-O	"
"	3-P	"

SHELL OIL COMPANY, CONTINUED

McKinley A	4-N	19-18-38
"	5-J	"
"	6-K	"
"	7-D	"
"	8-I	"
McKinley B	1-K	20-18-38
"	2-N	"
"	3-M	"
"	4-L	"
Sanger	1-M	27-18-38
"	2-N	"
"	3-L	"
"	4-E	"
"	5-K	"
State A	1-G	32-18-38

Date-April 8, 1958

Operator-PAN AMERICAN OIL CORP-Meet at Pan American Camp South of Hobbs at 7:30AM
28 wells

Byers NW/3	8-D	3-19-38
"	11-C	"
"	26-F	"
"	29-E	"
Byers NE/4	8-B	4-19-38
"	11-A	"
"	26-H	"
"	33-G	"
Capps SE/3	7XJ	3-19-38
"	10XJ	"
"	30XO	"
Capps SW/3	8-L	"
"	11-K	"
McKinley	8-D	5-19-38
"	12-C	"
"	19-E	"
State A "1"	8-D	4-19-38
"	11-C	"
"	26-F	"
"	33-E	"
State A "2"	4-J	"
"	11-I	"
"	26-P	"
"	29-O	"
State A "3"	3-K	"
"	26-N	"
State A Tr. 1 "D"	11XC	"
"	7-D	" T/A

Date-April 9, 1958

Operator-HUMBLE OIL & RFG. CO.-Meet at Humble Camp on Grimes at 7:30 A.M.
21 wells

Bowers A	1-I	30-18-38
"	2-J	"
"	3-M	29-18-38
"	4-P	30-18-38
"	5-I	"
"	6-I	"
"	8-O	"
"	9-E	29-18-38
"	10-L	"
"	12-L	"
"	13-J	30-18-38
"	14-M	29-18-38
"	15-P	30-18-38
"	16-O	"
Bower B	1-D	29-18-38
Grimes	1-A	"
State A	1-I	25-18-37
"	5-O	"
"	6-K	"
"	7-P	"
"	2-P	"

Date-April 10, 1958

Operator-SHELL OIL COMPANY-Meet at Rice #1-P, 13-18-37 at 7:30 A. M.
17 wells

Rice	1-P	13-18-37
"	2-O	"
"	3-I	"
"	4-J	"
State A	2-G	32-18-37
"	3-C	32-18-38
"	4-H	"
State B	1-D	33-18-38
"	2-C	"
State D	1-F	24-18-37
"	2-C	"
State F	1	23-18-37
"	2-G	"
"	3-B	"
Thorp	1-J	19-19-38
Turner	1-G	34-18-38
"	2-B	34-18-37

Date-April 10, 1958

Operator-WALKER OIL CO.-Meet at Terry #1-0, 10-19-38 at 3:00 P.M.
2 wells

Terry	1-0	10-19-38
Terry	2-0	"

Date-April 14, 1958

Operator-W. K. BYROM-Meet at Bradley #1, 6-19-38 at 8:00 A.M.
8 wells

Bradley	1-I	6-19-38
"	2-P	"
"	5-G	"
Bradley B	1-J	"
"	2-O	"
Holt	1-B	36-18-37
Orcutt	1-C	8-19-38
"	2-D	"

Date-April 14, 1958

Operator-ALBERT GACKLE-Meet at Terry #1-A, 8-19-38 at 1:15 P.M.
1 well

Terry	1-A	8-19-38

Date-April 14, 1958

Operator-ATLANTIC RFG. CO.-Meet at Bradley #1-A, 6-19-38 at 2:00 P.M.
7 wells

Bradley	1-A	6-19-38
"	2-A	"
"	3-B	"
"	4-H	"
"	6-B	"
"	7-H	"
Grimes	1-O	20-18-38

Date-April 15, 1958

Operator-PAN AMERICAN PET. CORP.-Meet at Pan American Camp at 7:30 A.M.
28 wells

Capps SW/3	26-N	3-19-38
Capps SE/3	27-P	"
"	31-M	"

PAN AMERICAN PET. CORP., CONTINUED

Leech	24-F	15-19-38
State A "5"	1-A	9-19-38
"	8-B	"
"	26-H	"
"	29-G	"
State A "6"	11-C	"
"	24-F	"
State A "7"	8-D	10-19-38
"	29-E	"
State A "8"	24-N	"
"	36-N	"
"	29-M	"
State A "9"	1-C	15-19-38
"	13AC	"
Terry	8-D	9-19-38
Terry "1"	8-J	"
"	11-K	"
Terry "2"	8-L	10-19-38
"	13-K	"
Terry "3"	21-E	9-19-38
Thorp	7XB	10-19-38
"	11-C	"
"	26-F	"
"	30XG	"
Turner "1"	8-D	34-18-38

Date-April 16, 1958

Operator-CITIES SERVICE OIL CO.-Meet at Cities Service Camp at Hobbs at 7:30 A.M.
12 wells

Fowler	1-A	31-18-38
"	2-B	"
"	3-G	"
"	4-H	"
"	5-A	"
"	6-H	"
"	7-B	"
"	8-G	"
Hardin	1-F	19-18-38
"	2-E	"
"	3-C	"
"	5-D	"

Date-April 17, 1958

Operator-THE TEXAS COMPANY-Meet at Texas Company South of Hobbs at 7:30 A.M.
9 wells

McKinley	2-I	5-19-38
"	1-L	4-19-38

THE TEXAS COMPANY, CONTINUED

McKinley	3-M	4-19-38
"	4-P	5-19-38
Selman	1-J	15-19-38
State CDD & B	1-A	25-18-37
"	2-H	"
"	3-G	"
"	4-B	"

Date-April 17, 1958

Operator-TEXAS PACIFIC COAL & OIL CO.-Meet at State "G" #1-P, 24-18-37 at 11:00AM
5 wells

State G	1-P	24-18-37
"	2-I	"
"	3-J	"
"	4-O	"
State V Ac/1	1-I	14-18-37

Date-April 17, 1958

Operator-C. H. SWEET-Meet at Grimes #1, 20-18-38 at 1:15 P.M.
10 wells

Federal Bowers	1	20-18-38
Fed. Bowers B	2AJ	"
"	3	"
"	3AP	"
Grimes	1	"
"	3A-I	"
State F	1-A	23-18-37
"	2-H	"
"	3-I	"
"	4-A	"

Date-April 21, 1958

Operator-MORRIS R. ANTWEIL-Meet at McKinley #1-G, 20-18-38 at 8:00 A. M.
2 wells

McKinley	1-G	20-18-38
"	2-H	"

Date-April 21, 1958

Operator-R. M. MORAN-Meet at Hardin B #1-E, 18-18-38 at 9:00 A. M.- 1 well

Hardin B	1-E	18-18-38

Date-April 21, 1958

Operator-MORAN OIL PRODUCING & DRILLING CO.-Meet at Rice #1-H, 13-18-37 at 9:30AM
4 wells

Rice	1-H	13-18-37
"	2-G	"
"	3-A	"
"	4-B	"

Date-April 21, 1958

Operator-MAPENZA OIL CORP.-Meet at Stanolind State #1A-P, 14-18-37 at 11:00 A.M.
1 well

Stanolind State	1A-P	14-18-37

Date-April 21, 1958

Operator-MAGNOLIA PET. CO.-Meet at Berry #1, 31-18-38 at 1:15 P.M.
4 wells

Berry	1-K	31-18-38
"	2-N	"
"	3-L	"
"	4-M	"

Date-April 21, 1958

Operator-SUNRAY MID-CONTINENT OIL CO.-Meet at Fowler #1-D, 31-18-38 at 2:30 P.M.
4 wells

Fowler	1-D	31-18-38
"	4-E	"
Fowler C	2-D	"
"	3-E	"

Date-April 22, 1958

Operator-PAN AMERICAN PET. CORP.-Meet at Pan American Camp at Hobbs at 7:30 A.M.
23 wells

McKinley	1-C	5-19-38
"	6-D	"
"	26-F	"
"	29-E	"
State A "4"	8-L	"
"	11-K	"
"	18-K	"

PAN AMERICAN PET. CORP.. CONTINUED

State A "4"	21-M	5-19-38
"	24-N	"
State A Tr. 10	23-P	33-18-38
"	26-P	"
State G	1-E	"
"	2-F	"
"	3-F	"
"	4-E	"
State H	1-C	6-19-38
"	2-F	"
Turner A	5-L	34-18-38
Turner "1"	29XE	"
Turner "2"	8XL	"
"	11-K	"
"	26-N	"
"	29-M	"

Date-April 23, 1958

Operator-OHIO OIL COMPANY-Meet at Ohio Camp West of Hobbs at 8:00 A.M.
15 wells

State 30	1-K	30-18-38
"	2-N	"
"	3-L	"
"	5-K	"
"	6-M	"
"	7-N	"
"	8-K	"
"	9-M	"
State 32	1	32-18-38
"	2-P	"
"	3-I	"
"	4-J	"
"	5-O	"
"	7-P	"
"	8-I	"

Date-April 24, 1958

Operator-STANDARD OIL CO. OF TEXAS-Meet at McKinley #1-F, 20-18-38 at 7:30 A.M.
7 wells

McKinley	1-F	20-18-38
"	2-E	"
State 17	1-L	17-18-38
State	1-P	29-18-38
"	2-O	"
State 29	3-P	"
"	4-O	"

Date- April 24, 1958

Operator-SUN OIL COMPANY-Meet at Sun Oil Co. Camp in Hobbs at 10:00 A.M.
6 wells

McKinley	1-A	5-19-38
"	2-H	"
"	3-B	"
"	4-G	"
"	5-B	"
"	6-A	"

Date-April 24, 1958

Operator-SOUTHERN PET. EXPL. CO.-Meet at Morris A #1-O, 21-18-38 at 1:15 P.M.
2 wells

Morris A	1-O	21-18-38
Morris B	1-P	"

Date-April 24, 1958

Operator-YATES BROTHERS-Meet at Shell State #1-P, 23-18-37 at 2:30 P.M.
3 wells

Shell State	1-P	23-18-37
"	2-J	"
"	3-O	"

Date-April 28, 1958

Operator-SKELLY OIL COMPANY-Meet at Skelly Grimes Camp west of Hobbs at 7:30 A.M.
10 wells

Fowler	1-C	31-18-38
"	2-F	"
"	3-C	"
"	4-F	"
Hobbs E	1-A	26-18-37
Mexico U	1-B	8-19-38
McKinley	1-D	20-18-38
State A	1-M	17-18-38
Turner	1-F	34-18-38
"	2-C	"

Date-April 28, 1958

Operator-SINCLAIR OIL & GAS CO.-Meet at Sinclair Camp south of Hobbs at 1:30 P.M.
7 wells

Crump	1-B	15-19-38
Grimes	1-E	28-18-38

SINCLAIR OIL & GAS CO., CONTINUED

Grimes	2-F	28-18-38
"	3-D	"
"	4-C	"
Selman	1-G	15-19-38
Crump	2-B	"

Date-April 30, 1958

Operator-SAMEDAN OIL CORP.-Meet at Samedan Camp, North Grimes in Hobbs, at 7:30AM
18 wells

Byers	1-B	3-19-38
"	2-G	"
"	3-A	"
"	4-H	"
Moon A	1-G	28-18-38
"	2-B	"
Moon B	1-H	"
"	2-A	"
State B	1-F	25-18-37
"	2-E	"
State C	1-N	24-18-37
"	2-K	"
"	3-L	"
"	4-M	"
Turner A	1-J	34-18-38
"	2-O	"
Turner B	1-I	"
"	2-P	"

Date-May 6, 1958

Operator-GULF OIL CORP.-Meet at Grimes #1, 33-18-38 at 7:30 A.M.
29 wells

Graham State	1-H	24-18-37
"	2-A	"
"	3-G	"
"	4-B	"
Grimes, W. A.	10-D	32-18-38
"	11-F	"
"	12-L	"
"	13-E	"
"	14-M	"
Grimes, W. D.	5-B	33-18-38
"	6-I	"
Grimes, W. D. "A"	1-D	32-18-38
"	2-F	"
"	3-K	"

GULF OIL CORP., CONTINUED

Grimes, W. D. "A"	5-M	32-18-38
"	6-N	" (Status)
"	7-G	"
"	8-E	"
"	9-L	"
"	15-N	"
Grimes, W. D. "C"	1-M	21-18-38
"	2-N	"
"	3-L	"
Grimes, West	4-C	32-18-38
"	15-N	"
Hardin	1-O	18-18-38
"	2-P	"
"	3-I	"
J. R. Holt "D"	1-C	36-18-37

Date-May 7, 1958

Operator-GULF OIL CORP.-Meet at Grimes #1, 33-18-38 at 7:30 A. M.
4 wells

Grimes, W. D. "B"	1-I	33-18-38
"	2-H	"
"	3-B	"
"	4-A	"

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. BOX 2045

HOBBS, NEW MEXICO

TO: ALL OPERATORS IN THE HOBBS, BOWERS, BYERS QUEEN GAS, AND HOBBS DRINKARD POOLS.

In accordance with Memorandum No. 33-57 dated November 18, 1957, from Mr. A. L. Porter, Jr., Secretary-Director, in which it is prescribed that casing leak surveys will be witnessed by a Commission representative during the quarter beginning April 1, the following wells will be readied for this annual inspection in the manner and on the date as herein outlined.

1. All wells must be shut in 24 hours before inspection will be witnessed.

2. All cellars will be dug in a manner to expose the outlets of all bradenheads from the first string of pipe cemented in the well and to expose all subsequent heads to and including the tubing head, unless a Form C-103 has been filed indicating satisfactory connections below the ground level and with proper identification above ground level.

3. One opening from all bradenheads will be connected above the surface of the ground with a second valve. The second valve must be closed in compliance with paragraph number one.

4. The operator must furnish connections and personnel who will assist in the opening of valves. Pressure gauges to record pressures should also be furnished, if possible.

5. The Proration Manager will be notified of a well that has failed to meet the requirement of preparation as outlined on the date-time schedule, and such well will be immediately removed from the proration schedule. The loss of allowable will begin from the date of the bradenhead inspection of the well.

6. If, due to unusual mechanical difficulties or workover operations, a particular well cannot be made ready at the time set forth on the schedule, its test date may be delayed after inspection of the conditions by the Commission representative. The Commission should be notified at least 48 hours prior to test time for well or wells that require such delays.

7. The Commission expects company personnel to be present at the meeting place on the date and time indicated on the attached schedule. If for any reason the operator or his representative cannot be present, the Commission must be notified in advance.

   In every case, the Commission representative will meet the company personnel at the place and time shown on the schedule and proceed to all listed wells in logical order.

8. For further information or questions, please contact Eric Engbrecht, Express 3-6161, Hobbs, New Mexico.

DATE-TIME SCHEDULE

APRIL 1, 1959

CITIES SERVICE OIL COMPANY — 12 wells

Meet at Cities Service Camp, Hobbs, at 7:30 a.m.

Fowler	1-A	31-18-38
Fowler	2-B	31-18-38
Fowler	3-G	31-18-38
Fowler	4-H	31-18-38
Fowler	5-A	31-18-38
Fowler	6-H	31-18-38
Fowler	7-B	31-18-38
Fowler	8-G	31-18-38
Hardin	1-F	19-18-38
Hardin	2-E	19-18-38
Hardin	3-C	19-18-38
Hardin	5-D	19-18-38
Fowler B	1-K	6-19-38

APRIL 2, 1959

PAN AMERICAN OIL CORPORATION — 27 wells

Meet at Pan American Camp South of Hobbs at 7:30 a.m.

Byers NW/3	8-D	3-19-38
Byers NW/3	11-C	3-19-38
Byers NW/3	26-F	3-19-38
Byers NW/3	29-E	3-19-38
Byers NE/4	8-B	4-19-38
Byers NE/4	11-A	4-19-38
Byers NE/4	26-H	4-19-38
Byers NE/4	33-G	4-19-38
Capps SE/3	7XJ	3-19-38
Capps SE/3	10XI	3-19-38
Capps SE/3	30XO	3-19-38
Capps SW/3	8-L	3-19-38
Capps SW/3	11-K	3-19-38
McKinley	8-D	5-19-38
McKinley	12-C	5-19-38
McKinley	19-E	5-19-38
State A "1"	8-D	4-19-38
State A "1"	11-C	4-19-38
State A "1"	26-F	4-19-38
State A "1"	33-E	4-19-38
State A "2"	4-J	4-19-38
State A "2"	11-I	4-19-38
State A "2"	26-P	4-19-38
State A "2"	29-O	4-19-38
State A "3"	3-K	4-19-38
State A "3"	26-N	4-19-38
State A "D"	11XC	4-19-38

APRIL 6, 1959

AMERADA PETROLEUM CORPORATION — 26 wells

Meet at Hardin Lease #1-M, 18-18-38, at 7:30 a.m.

Hardin	1-M	18-18-38
Hardin	2-N	18-18-38
Hardin	3-L	18-18-38
Hardin B	4-N	18-18-38
McKinley	1-D	30-18-38
McKinley	2-F	30-18-38
McKinley	3-C	30-18-38
McKinley	4-E	30-18-38
McKinley	5-F	30-18-38
McKinley	6-C	30-18-38
State A	1-B	32-18-38
State A	2-A	32-18-38
State A	3-B	32-18-38 (Status)
State B	1-F	29-18-38
State B	2-G	29-18-38
State B	3-B	29-18-38
State B	4-C	29-18-38
State B	5-G	29-18-38
State B	6-F	29-18-38
State C	1-A	36-18-37
State C	2-H	36-18-37
State C	3-G	36-18-37
State E	1-E	24-18-37
State E	2-D	24-18-37
State WH "B"	1-O	14-18-37
State WH "B"	2-K	14-18-37

APRIL 7, 1959

SHELL OIL COMPANY — 28 wells

Meet at McKinley Lease A #1-M, 19-18-38 at 7:30 a.m.

Barry	1-P	31-18-38
Barry	2-J	31-18-38
Barry	3-I	31-18-38
Barry	4-O	31-18-38
Barry	6-P	31-18-38
Barry	7-J	31-18-38
Grimes	1-M	28-18-38
Grimes	2-L	28-18-38
Grimes	3-K	28-18-38
Grimes	4-N	28-18-38
McKinley A	1-M	19-18-38
McKinley A	2-O	19-18-38
McKinley A	3-P	19-18-38
McKinley A	4-N	19-18-38
McKinley A	5-J	19-18-38
McKinley A	6-K	19-18-38
McKinley A	7-L	19-18-38
McKinley A	8-I	19-18-38

SHELL OIL COMPANY (continued)

McKinley B	1-K	20-18-38
McKinley B	2-N	20-18-38
McKinley B	3-M	20-18-38
McKinley B	4-L	20-18-38
Sanger	1-M	27-18-38
Sanger	2-N	27-18-38
Sanger	3-L	27-18-38
Sanger	4-E	27-18-38
Sanger	5-K	27-18-38
State A	1-G	32-18-38

APRIL 8, 1959

HUMBLE OIL & REFINING COMPANY — 22 wells

Meet at Humble Camp on Grimes Street at 7:30 a.m.

Bowers A	1-I	30-18-38
Bowers A	2-J	30-18-38
Bowers A	3-M	29-18-38
Bowers A	4-P	30-18-38
Bowers A	5-I	30-18-38
Bowers A	6-I	30-18-38
Bowers A	8-O	30-18-38
Bowers A	9-E	29-18-38
Bowers A	10-L	29-18-38
Bowers A	13-J	30-18-37
Bowers A	14-N	29-18-38
Bowers A	15-P	30-18-38
Bowers A	16-O	30-18-38
Bowers B	1-D	29-18-38
Grimes	1-A	29-18-38
State A	1-I	25-18-37
State A	2-P	25-18-37
State A	5-O	25-18-37
State A	6-K	25-18-37
State A	7-P	25-18-37
State A	8-J	25-18-37
State A	9-N	25-18-37

APRIL 9, 1959

PAN AMERICAN PETROLEUM CORPORATION — 28 wells

Meet at Pan American Camp at 7:30 a.m.

Capps SW/3	26-N	3-19-38
Capps SE/3	27-P	3-19-38
Capps SE/3	31-M	3-19-38
Leech	24-F	15-19-38
State A "5"	1-A	9-19-38
State A "5"	8-B	9-19-38
State A "5"	26-H	9-19-38
State A "5"	29-G	9-19-38

PAN AMERICAN PETROLEUM CORPORATION (continued)

State A "6"	11-C	9-19-38
State A "6"	24-F	9-19-38
State A "7"	8-D	10-19-38
State A "7"	29-E	10-19-38
State A "8"	24-N	10-19-38
State A "8"	36-N	10-19-38
State A "8"	29-M	10-19-38
State A "9"	1-C	15-19-38
State A "9"	13-AC	15-19-38
Terry	8-D	9-19-38
Terry "1"	8-J	9-19-38
Terry "1"	11-K	9-19-38
Terry "2"	8-L	10-19-38
Terry "2"	13-K	10-19-38
Terry "3"	21-E	9-19-38
Thorp	7-XB	10-19-38
Thorp	11-C	10-19-38
Thorp	26-F	10-19-38
Thorp	30-XG	10-19-38
Turner "1"	8-D	34-18-38

APRIL 13, 1959

CONTINENTAL OIL COMPANY — 32 wells

Meet at Continental Office on North Turner at 7:30 a.m.

Grimes	1-O	28-18-38
Grimes	2-P	28-18-38
Grimes	3-J	28-18-38
Grimes	4-I	28-18-38
Grimes	5-O	28-18-38 (Status)
Grimes	6-K	28-18-38 (Status)
State A-5	1-J	5-19-38
State A-5	2-O	5-19-38
State A-29	1-J	29-18-38 Hobbs
State A-29	2-N	29-18-38 "
State A-29	3-K	29-18-38 "
State A-29	4-J	29-18-38 Bowers
State A-29	5-K	29-18-38 Bowers
State A-29	6-N	29-18-38 Bowers
State A-33	1-M	33-18-38 Hobbs
State A-33	2-L	33-18-38 Hobbs
State A-33	3-K	33-18-38 Hobbs
State A-33	4-J	33-18-38 Hobbs
State A-33	5-O	33-18-38 "
State A-33	6-N	33-18-38 "
State A-33	7-G	33-18-38 "
State A-33 29-	8-L	33-18-38
State A-33	9-M	33-18-38 Bowers
State A-33	10-K	33-18-38 "
State A-33	11-G	33-18-38 "

CONTINENTAL OIL COMPANY (continued)

State B-13	1-N	13-18-37
State B-13	2-M	13-18-37
State B-13	4-F	13-18-37
State B-13	5-E	13-18-37
State B-13	6-C	13-18-37
State B-25	1-C	25-18-37
State B-25	2-D	25-18-37

APRIL 14, 1959

SHELL OIL COMPANY — 16 wells

Meet at Rice Lease #1-P, 13-18-37, at 7:30 a.m.

Rice	1-P	13-18-37
Rice	2-O	13-18-37
Rice	3-I	13-18-37
Rice	4-J	13-18-37
State A	2-G	32-18-37
State A	3-G	32-18-38
State A	4-H	32-18-38
State B	1-D	33-18-38
State B	2-C	33-18-38
State D	1-F	24-18-37
State D	2-C	24-18-37
State F	2-G	23-18-37
State F	3-B	23-18-37
Thorp	1-J	10-19-38
Turner	1-G	34-18-38
Turner	2-B	34-18-38

APRIL 15, 1959

OHIO OIL COMPANY — 16 wells

Meet at Ohio Camp West of Hobbs at 8:00 a.m.

State	1-N	9-19-38
State 30	1-K	30-18-38
State 30	2-N	30-18-38
State 30	3-L	30-18-38
State 30	5-K	30-18-38
State 30	6-M	30-18-38
State 30	7-N	30-18-38
State 30	8-[illegible]	30-18-38
State 30	9-M	30-18-38
State 32	2-P	32-18-38
State 32	3-I	32-18-38
State 32	4-J	32-18-38
State 32	5-O	32-18-38
State 32	7-P	32-18-38
State 32	8-I	32-18-38
State 32	6-O	32-18-38

APRIL 16, 1959

PAN AMERICAN PETROLEUM CORPORATION — 22 wells

Meet at Pan American Camp - Hobbs at 7:30 a.m.

McKinley	1-C	5-19-38
McKinley	6-D	5-19-38
McKinley	26-F	5-19-38
McKinley	29-E	5-19-38
State A "4"	8-L	5-19-38
State A "4"	11-K	5-19-38
State A "4"	21-M	5-19-38
State A "4"	24-N	5-19-38
State A Tr.10	23-P	33-18-38
State A Tr.10	26-P	33-18-38
State G	1-E	33-18-38
State G	2-F	33-18-38
State G	3-F	33-18-38
State G	4-E	33-18-38
State H	1-C	6-19-38
State H	2-F	6-19-38
Turner A	5-L	34-18-38
Turner "1"	29-XE	34-18-38
Turner "2"	8-XL	34-18-38
Turner "2"	11-K	34-18-38
Turner "2"	26-N	34-18-38
Turner "2"	29-M	34-18-38

APRIL 20, 1959

SKELLY OIL COMPANY — 10 wells

Meet at Skelly Grimes Camp west of Hobbs at 7:30 a.m.

Fowler	1-C	31-18-38
Fowler	2-F	31-18-38
Fowler	3-C	31-18-38
Fowler	4-F	31-18-38
Hobbs E	1-A	26-18-37
Mexico U	1-B	8-19-38
McKinley	1-D	20-18-38
State A	1-M	17-18-38
Turner	1-F	34-18-38
Turner	2-C	34-18-38

SINCLAIR OIL & GAS COMPANY — 7 wells

Meet at Sinclair Camp south of Hobbs at 1:30 p.m.

Crump	1-B	15-19-38
Crump	2-B	15-19-38
Grimes	1-E	28-18-38
Grimes	2-F	28-18-38
Grimes	3-D	28-18-38
Grimes	4-C	28-18-38
Selman	1-G	15-19-38

APRIL 21, 1959

TIDEWATER OIL COMPANY & GETTY OIL COMPANY — 15 wells

Meet at Tidewater Camp at Hobbs at 7:30 a.m.

Grimes	1-I	29-18-38
Grimes	3-I	29-18-38
Grimes	4-H	29-18-38
Hardin	1-G	19-18-38
Hardin	2-H	19-18-38
Hardin	3-B	19-18-38
Hardin	4-A	19-18-38
McKinley	1-G	30-18-38
McKinley	2-H	30-18-38
McKinley	3-H	30-18-38
McKinley	4-B	30-18-38
McKinley	5-A	30-18-38
McKinley	6-G	30-18-38
McKinley	7-B	30-18-38
State B	1-H	14-18-38
"	2-C	14-18-38

APRIL 22, 1959

STANDARD OIL COMPANY OF TEXAS — 7 wells

Meet at McKinley Lease #1-F, 20-18-38, at 7:30 a.m.

McKinley	1-F	20-18-38
McKinley	2-E	20-18-38
State 17	1-L	17-18-38
State	1-P	29-18-38
State	2-O	29-18-38
State 29	3-P	29-18-38
State 29	4-O	29-18-38

SUN OIL COMPANY — 6 wells

Meet at Sun Oil Camp in Hobbs at 10:00 a.m.

McKinley	1-A	5-19-38
McKinley	2-H	5-19-38
McKinley	3-B	5-19-38
McKinley	4-G	5-19-38
McKinley	5-B	5-19-38
McKinley	6-A	5-19-38

APRIL 23, 1959

SOUTHERN PETROLEUM EXPLORATION COMPANY — 2 wells

Meet at Morris A Lease #1-O, 21-18-38, at 1:15 p.m.

Morris A	1-O	21-18-38
Morris B	1-P	21-18-38

APRIL 23, 1959

YATES BROTHERS — 3 wells

Meet at Shell State Lease #1-P, 23-18-37, at 2:30 p.m.

Shell State	1-P	23-18-37
Shell State	2-J	23-18-37
Shell State	3-O	23-18-37

APRIL 27, 1959

W. K. BYROM — 8 wells

Meet at Bradley Lease #1, 6-19-38, at 8: a.m.

Bradley	1-I	6-19-38
Bradley	2-P	6-19-38
Bradley	5-G	6-19-38
Bradley B	1-J	6-19-38
Bradley B	2-O	6-19-38
Holt	1-B	36-18-37
Orcutt	1-C	8-19-38
Orcutt	2-D	8-19-38

ALBERT GACKLE — 1 well

Meet at Terry Lease #1-A, 8-19-38 at 11:00 a.m.

Terry	1-A	8-19-38

ATLANTIC REFINING COMPANY — 7 wells

Meet at Bradley Lease #1-A, 6-19-38, at 2:00 p.m.

Bradley	1-A	6-19-38
Bradley	2-A	6-19-38
Bradley	3-B	6-19-38
Bradley	4-H	6-19-38
Bradley	6-B	6-19-38
Bradley	7-H	6-19-38
Grimes	1-O	20-18-38

APRIL 28, 1959

THE TEXAS COMPANY — 9 wells

Meet at The Texas Company south of Hobbs at 7:30 a.m.

McKinley	2-I	5-19-38
McKinley	1-L	4-19-38
McKinley	3-M	4-19-38
McKinley	4-P	5-19-38

THE TEXAS COMPANY, (continued)

Selman	1-J	15-19-38
State CDD & B	1-A	25-18-37
State CDD & B	2-H	25-18-37
State CDD & B	3-G	25-18-37
State CDD & B	4-B	25-18-37

APRIL 28, 1959

THE TEXAS PACIFIC COAL & OIL COMPANY — 6 wells

Meet at State "G" Lease #1-P, 24-18-37, at 11:00 a.m.

State G	1-P	24-18-37
State G	2-I	24-18-37
State G	3-J	24-18-37
State G	4-O	24-18-37
State V Ac/1	1-I	14-18-37
State V Ac/1	2-J	14-18-37
State V Ac/1	3-F	23-18-37

C. H. SWEET — 10 wells

Meet at Grimes Lease #1, 20-18-38, at 1:15 p.m.

Federal	1	20-18-38
Federal Bowers B	2A-J	20-18-38
Federal Bowers B	3	20-18-38
Federal Bowers B	3A-P	20-18-38
Grimes	1-I	20-18-38
Grimes	3A-1	20-18-38
State F	1-A	23-18-37
State F	2-H	23-18-37
State F	3-I	23-18-37
State F	4-A	23-18-37

APRIL 29, 1959

RICE ENGINEERING & OPERATING, INC. — 2 wells

Meet at Oil Conservation Commission Office at 8:00 p.m.

Hobbs SWD	15-E	15-19-38
Hobbs SWD	25-P	25-18-37

APRIL 30, 1959

SAMEDAN OIL CORPORATION — 18 wells

Meet at Samedan Camp, North Grimes in Hobbs, at 7:30 a.m.

Byers	1-B	3-19-38
Byers	2-G	3-19-38

SAMEDAN OIL CORPORATION (continued)

Byers	3-A	3-19-38
Byers	4-H	3-19-38
Moon A	1-G	28-18-38
Moon A	2-B	28-18-38
Moon B	1-H	28-18-38
Moon B	2-A	28-18-38
State B	1-F	25-18-37
State B	2-E	25-18-37
State C	1-N	24-18-37
State C	2-K	24-18-37
State C	3-L	24-18-37
State C	4-M	24-18-37
Turner A	1-J	34-18-38
Turner A	2-O	34-18-38
Turner B	1-I	34-18-38
Turner B	2-P	34-18-38

APRIL 30, 1959

WALKER OIL COMPANY — 2 wells

Meet at Terry Lease #1-O, 10-19-38, at 3:00 p.m.

Terry	1-O	10-19-38
Terry	2-O	10-19-38

MAY 4, 1959

MORRIS R. ANTWEIL — 2 wells

Meet at McKinley Lease #1-G, 20-18-38, at 8:00 a.m.

McKinley	1-G	20-18-38
McKinley	2-H	20-18-38

R. M. MORAN — 2 wells

Meet at Hardin B Lease #1-E, 18-18-38, at 9:00 a.m.

Hardin B	1-E	18-18-38
Hardin B	2-F	18-18-38

MORAN OIL PRODUCING & DRILLING COMPANY — 4 wells

Meet at Rice Lease #1-H, 13-18-37, at 9:30 a.m.

Rice	1-H	13-18-37
Rice	2-G	13-18-37
Rice	3-A	13-18-37
Rice	4-B	13-18-37

MAY 4, 1959

MAPENZA OIL CORPORATION — 1 well

Meet at Stanolind State Lease #1A-P, 14-18-37, at 11:00 a.m.

Stanolind State	1A-P	14-18-37

MAGNOLIA PETROLEUM COMPANY — 4 wells

Meet at Berry Lease #1, 31-18-38, at 1:15 p.m.

Berry	1-K	31-18-38
Berry	2-N	31-18-38
Berry	3-L	31-18-38
Berry	4-M	31-18-38

SUNRAY MID-CONTINENT OIL COMPANY — 4 wells

Meet at Fowler Lease #1-D, 31-18-38, at 2:30 p.m.

Fowler	1-D	31-18-38
Fowler	4-E	31-18-38
Fowler C	2-D	31-18-38
Fowler C	3-E	31-18-38

MAY 5, 1959

GULF OIL CORPORATION — 35 wells

Meet at W. D. Grimes "B" Lease #1, 33-18-38, at 7:30 a.m.

Graham State A	1-H	24-18-37
Graham State A	2-A	24-18-37
Graham State A	3-G	24-18-37
Graham State A	4-B	24-18-37
Grimes, ~~W.A.NCT "A"~~	10-D	32-18-38
Grimes, ~~W.A.NCT "A"~~	11-F	32-18-38
Grimes, ~~W.A.NCT "A"~~	12-L	32-18-38
Grimes, ~~W.A.NCT "A"~~	13-E	32-18-38
Grimes, ~~W.A.NCT "A"~~	14-M	32-18-38
Grimes, W. D. "B"	5-B	33-18-38
Grimes, W. D "B"	6-I	33-18-38
Grimes, W. D, "A"	1-D	32-18-38
Grimes, W. D. "A"	2-F	32-18-38
Grimes, W. D. "A"	3-K	32-18-38
Grimes, W. D. "A"	5-M	32-18-38
Grimes, W. D. "A"	7-C	32-18-38
Grimes, W. D. "A"	8-E	32-18-38
Grimes, W. D. "A"	9-L	32-18-38
Grimes, W. D. "A"	15-N	32-18-38
Grimes, W. D. "B"	1-I	33-18-38
Grimes, W. D. "B"	2-H	33-18-38
Grimes, W. D. "B"	3-B	33-18-38
Grimes, W. D. "B"	4-A	33-18-38

W D Grimes

4-C 32-18-

GULF OIL CORPORATION (continued)

Grimes, W. D. "C"	1-M	21-18-38
Grimes, W. D. "C"	2-N	21-18-38
Grimes, W. D. "C"	3-L	31-18-38
~~Grimes, West~~	~~4-C~~	~~32-18-38~~
~~Grimes, West~~	~~[illegible]~~	~~[illegible]~~
Hardin	1-O	18-18-38
Hardin	2-P	18-18-38
Hardin	3-I	18-18-38
Holt, J.R. "D"	1-C	36-18-37
Lea State "FO"	1-N	14-18-37
Hardin	4-G	18-18-38
"	5-J	"
"	6-H	"

NEW MEXICO OIL CONSERVATION COMMISSION
Post Office Box 2045
Hobbs, New Mexico

TO: ALL OPERATORS WITH WELLS IN THE HOBBS, BOWERS, BYERS-QUEEN GAS, AND HOBBS-DRINKARD POOLS.

SUBJECT: ANNUAL CASING LEAK SURVEY IN THE HOBBS AREA WITH ATTACHED DATE-TIME SCHEDULE.

In accordance with the Secretary-Director's Memorandum No. 33-57, wells involved in the annual witnessed casing leak inspection shall be readied in the manner and on the dates as herein outlined.

1. All wells must be shut-in for 24 hours before inspection is to be witnessed.

2. All cellars shall be dug in such a manner as to expose outlets of bradenheads from the first string of pipe cemented in well and all subsequent heads to, and including, the tubing head, unless Form C-103 has been filed showing satisfactory connections below ground level and proper identification above ground level.

3. One opening from all bradenheads shall be connected to a second valve above the surface. This second valve must be closed in compliance with paragraph 1.

4. Operators shall furnish connections and personnel to assist in the opening of valves. Where possible, pressure gauges to record pressures should be furnished.

5. The Proration Manager will be notified when wells fail to meet preparation requirements and such wells will be removed from the Proration Schedule. The loss of allowable will begin from the scheduled date of the inspection.

6. If, due to unusual mechanical difficulties or workover operations, wells cannot be made ready at the time set forth on the Date-Time Schedule, test dates may be delayed after inspection by a Commission representative. The Commission shall be notified at least forty-eight (48) hours prior to test time if such conditions should occur.

7. The Commission requests company personnel to be present at the meeting place on the date and time indicated on the attached Date-Time Schedule. If the operator or his representative cannot be present, the Commission shall be notified in advance. In every case, a Commission representative will meet company personnel at the scheduled place and time and proceed to inspect all wells in logical order.

8. For further information, please contact Eric Engbrecht, Express 3-6161, Hobbs, New Mexico.

Attachment: Date-Time Schedule

DATE-TIME SCHEDULE

APRIL 1, 1960

ARERADA PETROLEUM CORPORATION — 28 wells

Meet at Hardin Lease No. 1-M, Section 18-T18S-R38E at 7:30 a.m.

Hardin	1-M	18-18-38
Hardin	2-N	18-18-38
Hardin	3-L	18-18-38
Hardin	5-K	18-18-38
Hardin B	4-[illegible]	18-18-38
McKinley	1-D	30-18-38
McKinley	2-F	30-18-38
McKinley	3-C	30-18-38
McKinley	4-E	30-18-38
McKinley B	5-F	30-18-38
McKinley B	6-C	30-18-38
State A	1-E	32-18-38
State A	2-[illegible]	32-18-38
State A	3-B	32-18-38
State B	1-F	29-18-38
State B	2-G	29-18-38
State B	3-E	29-18-38
State B	4-C	29-18-38
State B	5-G	29-18-38
State B	6-F	29-18-38
State C	1-[illegible]	36-18-37
State C	2-[illegible]	36-18-37
State C	3-G	36-18-37
State E	1-E	24-18-37
State E	2-D	24-18-37
State [illegible] "B"	1-C	14-18-37
State [illegible] "B"	2-[illegible]	14-18-37
State [illegible] "C"	1-I	8-19-38

APRIL 4, 1960

TIDEWATER OIL COMPANY & GETTY OIL COMPANY — 16 wells

Meet at Tidewater Camp in Hobbs at 7:30 a.m.

Grimes	1-I	29-18-38
Grimes	3-I	29-18-38
Grimes	4-[illegible]	29-18-38
Hardin	1-G	19-18-38
Hardin	2-H	19-18-38
Hardin	3-B	19-18-38
Hardin	4-A	19-18-38
McKinley	1-C	30-18-38
McKinley	2-[illegible]	30-18-38
McKinley	3-[illegible]	30-18-38
McKinley	4-B	30-18-38
McKinley	5-[illegible]	30-18-38

TIDEWATER OIL COMPANY & GETTY OIL COMPANY (continued)

McKinley	6-G	30-18-38
McKinley	7-B	30-18-38
State B	1-H	14-18-37
State B	2-G	14-18-37

APRIL 5, 1960

PAN AMERICAN OIL CORPORATION — 27 wells

Meet at Pan American Camp South of Hobbs at 7:30 a.m.

Byers "A"	8-D	3-19-38
Byers "A"	11-C	3-19-38
Byers "A"	26-F	3-19-38
Byers "A"	29-E	3-19-38
Byers "B"	8-B	4-19-38
Byers "B"	11-A	4-19-38
Byers "B"	26-H	4-19-38
Byers "B"	33-G	4-19-38
W. S. Capps	7X-J	3-19-38
W. S. Capps	8-L	3-19-38
W. S. Capps	10X-I	3-19-38
W. S. Capps	11-P	3-19-38
W. S. Capps	30X-O	3-19-38
McKinley	8-D	5-19-38
McKinley	12-C	5-19-38
McKinley	19-E	5-19-38
State A Fr.1	8-D	4-19-38
State A Fr. 1	11-C	4-19-38
State A Fr. 1	26-F	4-19-38
State A Fr. 1	33-E	4-19-38
State A Fr. 2	4-J	4-19-38
State A Fr. 2	11-I	4-19-38
State A Fr. 2	26-P	4-19-38
State A Fr. 2	29-O	4-19-38
State A Fr. 3	3-H	4-19-38
State A Fr. 3	26-N	4-19-38
State A Fr. 1	11X-C	4-19-38

APRIL 6, 1960

SHELL OIL COMPANY — 28 wells

Meet at Shell Camp north of town on North Grimes at 7:30 a.m.

Berry	1-P	31-18-38
Berry	2-J	31-18-38
Berry	3-I	31-18-38
Berry	4-O	31-18-38
Berry	6-P	31-18-38
Berry	7-J	31-18-38

SHELL OIL COMPANY (continued) 28 wells

Grimes	1-M	28-18-38
Grimes	2-L	28-18-38
Grimes	3-K	28-18-38
Grimes	4-N	28-18-38
McKinley A	1-M	19-18-38
McKinley A	2-O	19-18-38
McKinley A	3-P	19-18-38
McKinley A	4-N	19-18-38
McKinley A	5-J	19-18-38
McKinley A	6-K	19-18-38
McKinley A	7-D	19-18-38
McKinley A	8-I	19-18-38
McKinley B	1-K	20-18-38
McKinley B	2-M	20-18-38
McKinley B	3-N	20-18-38
McKinley B	4-L	20-18-38
Sanger	1-M	27-18-38
Sanger	2-N	27-18-38
Sanger	3-L	27-18-38
Sanger	4-E	27-18-38
Sanger	5-K	27-18-38
State A	1-G	32-18-38

APRIL 7, 1960

SHELL OIL COMPANY 16 wells

Meet at Rice Lease Well No. 1-P, Section 13-T18S-R27E at 7:30 a.m.

Rice	1-P	13-18-37
Rice	2-O	13-18-37
Rice	3-I	13-18-37
Rice	4-J	13-18-37
State A	2-G	32-18-38
State A	3-G	32-18-38
State A	4-H	32-18-38
State B	1-D	33-18-38
State B	2-C	33-18-38
State D	1-F	24-18-37
State D	2-C	24-18-37
State F	2-G	23-18-37
State F	3-B	23-18-37
Thorpe	1-J	10-19-38
Turner	1-G	34-18-38
Turner	2-B	34-18-38

WALKER OIL COMPANY 2 wells

Meet at Terry Lease Well No. 1-O, Section 10-T19S-R38E at 3:00 p.m.

Terry	1-O	10-19-38
Terry	2-O	10-19-38

APRIL 11, 1960

W. K. Byrom — 8 wells

Meet at Bradley Lease Well No. 1, Section 6-T19S-R38E at 8:00 a.m.

Bradley	1-I	6-19-38
Bradley	2-P	6-19-38
Bradley	5-G	6-19-38
Bradley B	1-J	6-19-38
Bradley B	2-O	6-19-38
Holt	1-B	36-18-37
Orcutt	1-C	8-19-38
Orcutt	2-D	8-19-38

ALBERT GACKLE, OPERATOR — 1 well

Meet at Terry Well No. 1-A, Section 8-T19S-R38E at 1:15 p.m.

Terry	1-A	8-19-38

ATLANTIC REFINING COMPANY — 7 wells

Meet at Bradley Lease Well No. 1-A, Section 6-T19S-R38E at 2:00 p.m.

Bradley	1-A	6-19-38
Bradley	2-A	6-19-38
Bradley	3-B	6-19-38
Bradley	4-H	6-19-38
Bradley	6-B	6-19-38
Bradley	7-H	6-19-38
Grimes	1-O	20-18-38

APRIL 12, 1960

PAN AMERICAN PETROLEUM CORPORATION — 28 wells

Meet at Pan American Camp at 7:30 a.m.

W. S. Capps	26-N	3-19-38
W. S. Capps	27-P	3-19-38
W. S. Capps	31-M	3-19-38
Leech NW/15	24-F	15-19-38
State A Tr.5	1-A	9-19-38
State A Tr.5	8-B	9-19-38
State A Tr.5	26-H	9-19-38
State A Tr.5	29-G	9-19-38
State A Tr.6	11-C	9-19-38
State A Tr.6	24-F	9-19-38
State A Tr.7	8-D	10-19-38
State A Tr.7	29-E	10-19-38
State A Tr.8	24-N	10-19-38
State A Tr.8	29-M	10-19-38
State A Tr.8	36-N	10-19-38

PAN AMERICAN PETROLEUM CORPORATION (continued)

State A Tr.9	1-C	15-[illegible]
State A Tr.9	13-C	15-19-38
O.B. Terry	8-D	9-19-38
Terry Tr. 1	8-J	9-19-38
Terry Tr. 1	11-K	9-19-38
Terry Tr. 2	8-L	10-19-38
Terry Tr. 2	13-K	10-19-38
Terry Tr. 3	21-E	9-19-38
B. L. Thorp	7X-B	10-19-38
B. L. Thorp	11-C	10-19-38
B. L. Thorp	26-F	10-19-38
B. L. Thorp	30X-G	10-19-38
Turner Tr. 1	8-D	34-18-38

APRIL 13, 1960

HUMBLE OIL AND REFINING COMPANY — 21 wells

Meet at Humble Camp on Grimes at 7:30 a.m.

Bowers A	1-I	30-18-38
Bowers A	2-J	30-18-38
Bowers A	3-M	29-18-38
Bowers A	4-P	30-18-38
Bowers A	5-I	30-18-38
Bowers A	6-I	30-18-33
Bowers A	8-O	30-18-38
Bowers A	9-E	29-18-38
Bowers A	10-L	29-18-38
Bowers A	13-J	30-18-33
Bowers A	14-M	29-18-38
Bowers A	15-P	30-18-38
Bowers A	16-O	30-18-38
Bowers B	1-D	29-18-38
W.D. Grimes	1-A	29-18-38
State A	1-I	25-18-37
State A	5-O	25-18-37
State A	6-K	25-18-37
State A	7-P	25-18-37
State A	8-J	25-18-37
State A	9-N	25-18-37

APRIL 14, 1960

CONTINENTAL OIL COMPANY — 32 wells

Meet at Continental Office on North Turner at 7:30 a.m.

Grimes	1-O	28-18-38
Grimes	2-P	28-18-38
Grimes	3-J	28-18-38

CONTINENTAL OIL COMPANY (continued)

Grimes	4-I	28-18-38
Grimes	5-O	28-18-38
Grimes	6-K	28-18-38
State A-5	1-J	5-19-38
State A-5	2-O	5-19-38
State A-29	1-J	29-18-38
State A-29	2-N	29-18-38
State A-29	3-K	29-18-38
State A-29	4-J	29-18-38
State A-29	5-K	29-18-38
State A-29	6-N	29-18-38
State A-33	1-M	33-18-38
State A-33-	2-L	33-18-38
State A-33	3-K	33-18-38
State A-33	4-J	33-18-38
State A-33	5-O	33-18-38
State A-33	6-N	33-18-38
State A-33	7-G	33-18-38
State A-33	8-L	33-18-38
State A-33	9-M	33-18-38
State A-33	10-K	33-18-38
State A-33	11-G	33-18-38
State B-13	1-N	13-18-37
State B-13	2-M	13-18-37
State B-13	4-F	13-18-37
State B-13	5-E	13-18-37
State B-13	6-C	13-18-37
State B-25	1-C	25-18-37
tate B-25	2-D	25-18-37

APRIL 18, 1960

C. H. SWEET OIL COMPANY — 7 wells

Meet at Grimes Lease Well No. 1, Section 20-T18S-R38E at 7:30 a.m.

Bowers B	2A-J	20-18-38
Bowers B	3A-P	20-18-38
W. D. Grimes	1A-I	20-18-38
W. D. Grimes	3A-I	20-18-38
State F	2A-H	23-18-37
State F	3A-I	23-18-37
State F	4A-A	23-18-37

MORRIS R. ANTWEIL, OPERATOR — 2 wells

Meet at McKinley Lease Well No. 1, Section 20-T18S-R38E at 10:00 a.m.

McKinley	1-G	20-18-38
McKinley	2-H	20-18-38

APRIL 18, 1960 (continued)

R. M. MORAN, OPERATOR — 3 wells

Meet at Hardin B Lease Well No. 1-E, Section 18-T18S-R38E at 1:15 p.m.

Hardin B	1-E	18-18-38
Hardin B	2-F	18-18-38
Hardin B	3-D	18-18-38

MORAN OIL PRODUCING & DRILLING COMPANY — 4 wells

Meet at Rice Lease Well No. 1-H, Section 13-T18S-R37E at 2:30 p.m.

Rice	1-H	13-18-37
Rice	2-G	13-18-37
Rice	3-A	13-18-37
Rice	4-B	13-18-37

APRIL 19, 1960

PAN AMERICAN PETROLEUM CORPORATION — 23 wells

McKinley	1-C	5-19-38
McKinley	6-D	5-19-38
McKinley	26-F	5-19-38
McKinley	29-E	5-19-38
State A Tr. 4	8-L	5-19-38
State A Tr. 4	11-K	5-19-38
State A Tr. 4	21-M	5-19-38
State A Tr. 4	24-N	5-19-38
State A Tr. 10	23-P	33-18-38
State A Tr. 10	26-P	33-18-38
State G	1-E	33-18-38
State G	2-F	33-18-38
State G	3-F	33-18-38
State G	4-E	33-18-38
State H	1-C	6-19-38
State H	2-F	6-19-38
State H	3-D	6-19-38
Turner Tr. 1	29-E	34-18-38
Turner Tr. 2	8X-L	34-18-38
Turner Tr. 2	11-K	34-18-38
Turner Tr. 2	26-N	34-18-38
Turner Tr. 2	29-M	34-18-38
Turner Tr. 2	5-L	34-18-38

APRIL 20, 1960

CITIES SERVICE OIL COMPANY — 15 wells

Meet at Cities Service Camp, Hobbs, at 7:30 a.m.

Fowler	1-A	31-18-38

CITIES SERVICE OIL COMPANY (continued)

Fowler	2-B	31-18-38
Fowler	3-G	31-18-38
Fowler	4-H	31-18-38
Fowler	5-A	31-18-38
Fowler	6-H	31-18-38
Fowler	7-B	31-18-38
Fowler	8-G	31-18-38
Fowler B	1-K	6-19-38
Hardin	1-F	19-18-38
Hardin	2-E	19-18-38
Hardin	3-C	19-18-38
Hardin	4-D	19-18-38
Hardin	5-D	19-18-38
Shipp	1-E	23-18-37

APRIL 21, 1960

TEXACO, INC. 9 wells

Meet at the Texas Company south of Hobbs at 7:30 a.m.

McKinley	1-L	4-19-38
McKinley	2-I	5-19-38
McKinley	3-M	4-19-38
McKinley	4-P	5-19-38
Selman	1-J	15-19-38
State CDD & B	1-A	25-18-37
State CDD & B	2-H	25-18-37
State CDD & B	3-G	25-18-37
State CDD & B	4-B	25-18-37

TEXAS PACIFIC COAL & OIL COMPANY 10 wells

Meet at State G Lease Well No. 1-P, Section 24-18S-R37E at 11:00 a.m.

State G	1-P	24-18-37
State G	2-I	24-18-37
State G	3-J	24-18-37
State G	4-O	24-18-37
State V A/c-1	1-I	14-18-37
State V A/c-1	2-J	14-18-37
State V A/c-1	3-C	23-18-37
State V A/c-1	4-F	23-18-37
State V A/c-1	5-K	23-18-37
State V A/c-1	6-N	23-18-37

APRIL 25, 1960

SOCONY MOBIL OIL COMPANY, INC. 4 wells

Meet at Berry Lease Well No. 1, Section 31-T18S-R38E at 7:30 a.m.

Berry	1-K	31-18-38
Berry	2-N	31-18-38
Berry	3-L	31-18-38
Berry	4-M	31-18-38

SUNRAY MID-CONTINENT OIL COMPANY 4 wells

Meet at Fowler Lease Well No. 1-D, Section 31-T18S-R38E at 9:00 a.m.

Fowler	1-D	31-18-38
Fowler	4-E	31-18-38
Fowler C	2-D	31-18-38
Fowler C	3-E	31-18-38

APRIL 26, 1960

THE OHIO OIL COMPANY 16 wells

Meet at Ohio Camp west of Hobbs at 8:00 a.m.

State 9	1-N	9-19-38
State 30	1-K	30-18-38
State 30	2-N	30-18-38
State 30	3-L	30-18-38
State 30	5-K	30-18-38
State 30	6-M	30-18-38
State 30	7-N	30-18-38
State 30	8-L	30-18-38
State 30	9-M	30-18-38
State 32	2-P	32-18-38
State 32	3-I	32-18-38
State 32	4-J	32-18-38
State 32	5-O	32-18-38
State 32	6-O	32-18-38
State 32	7-P	32-18-38
State 32	8-I	32-18-38

NEIL E. SALSICH, OPERATOR 2 wells

Meet at O. B. Terry Well No. 1, Section 8-T19S-R38E at 1:15 p.m.

O. B. Terry	1-H	8-19-38
O. B. Terry B	1-L	9-19-38

APRIL 27, 1960

SKELLY OIL COMPANY — 11 wells

Meet at Skelly Grimes Camp west of Hobbs at 7:30 a.m.

Fowler	1-C	31-18-38
Fowler	2-F	31-18-38
Fowler	3-C	31-18-38
Fowler	4-F	31-18-38
Hobbs E	1-A	26-18-37
Mexico U	1-B	8-19-38
Mexico U	2-G	8-19-38
McKinley	1-D	20-18-38
State A	1-M	17-18-38
Turner	1-F	34-18-38
Turner	2-C	34-18-38

SINCLAIR OIL AND GAS COMPANY — 7 wells

Meet at Sinclair Camp south of Hobbs at 1:30 p.m.

Crump	1-B	15-19-38
Crump	2-B	15-19-38
Grimes	1-E	28-18-38
Grimes	2-F	28-18-38
Grimes	3-D	28-18-38
Grimes	4-C	28-18-38
Selman	1-G	15-19-38

APRIL 28, 1960

STANDARD OIL COMPANY OF TEXAS — 7 wells

Meet at McKinley Well No. 1-F, Section 20-T18S-R38E at 7:30 a.m.

McKinley	1-F	20-18-38
McKinley	2-E	20-18-38
State 17	1-L	17-18-38
State 29	1-P	29-18-38
State 29	2-O	29-18-38
State 29	3-P	29-18-38
State 29	4-O	29-18-38

SUN OIL COMPANY — 6 wells

Meet at Sun Oil Camp in Hobbs at 10:00 a.m.

McKinley	1-A	5-19-38
McKinley	2-H	5-19-38
McKinley	3-B	5-19-38
McKinley	4-G	5-19-38
McKinley	5-B	5-19-38
McKinley	6-A	5-19-38

APRIL 28, 1960 (continued)

SOUTHERN PETROLEUM EXPLORATION COMPANY 2 wells

Meet at Morris A Well No. 1-O, Section 21-T18S-R38E at 1:15 p.m.

Morris A	1-O	21-18-38
Morris B	1-P	21-18-38

YATES BROTHERS 3 wells

Meet at Shell State Well No. 1-P, Section 23-T18S-R37E at 2:30 p.m.

Shell State	1-P	23-18-37
Shell State	2-J	23-18-37
Shell State	3-O	23-18-37

MAY 2, 1960

SAMEDAN OIL CORPORATION 18 wells

Meet at Samedan Camp, North Grimes in Hobbs at 7:30 a.m.

Byers	1-B	3-19-38
Byers	2-G	3-19-38
Byers	3-A	3-19-38
Byers	4-H	3-19-38
Moon A	1-G	28-18-38
Moon A	2-B	28-18-38
Moon B	1-H	28-18-38
Moon B	2-A	28-18-38
State B	1-F	25-18-37
State B	2-E	25-18-37
State C	1-N	24-18-37
State C	2-K	24-18-37
State C	3-L	24-18-37
State C	4-M	24-18-37
Turner A	1-J	34-18-38
Turner A	2-O	34-18-38
Turner B	1-I	34-18-38
Turner B	2-P	34-18-38

MAY 3, 1960

GULF OIL CORPORATION 31 wells

Meet at W. D. Grimes B Well No. 1-I, Section 33-T18S-R38E at 7:30 a.m.

Graham State A	1-H	24-18-37
Graham State A	2-A	24-18-37
Graham State A	3-G	24-18-37
Graham State A	4-B	24-18-37

GULF OIL CORPORATION (continued)

W. D. Grimes A	1-D	32-18-38
W. D. Grimes A	2-F	32-18-38
W. D. Grimes A	3-K	32-18-38
W. D. Grimes A	4-C	32-18-38
W. D. Grimes A	5-M	32-18-38
W. D. Grimes A	7-C	32-18-38
W. D. Grimes A	8-E	32-18-38
W. D. Grimes A	9-L	32-18-38
W. D. Grimes A	10-D	32-18-38
W. D. Grimes A	11-F	32-18-38
W. D. Grimes A	12-L	32-18-38
W. D. Grimes A	13-E	32-18-38
W. D. Grimes A	14-M	32-18-38
W. D. Grimes A	15-N	32-18-38
W. D. Grimes B	5-B	33-18-38
W. D. Grimes B	6-I	33-18-38
W. D. Grimes C	1-M	21-18-38
W. D. Grimes C	2-N	21-18-38
W. D. Grimes C	3-L	21-18-38
Hardin	1-O	18-18-38
Hardin	2-P	18-18-38
Hardin	3-I	18-18-38
Hardin	4-G	18-18-38
Hardin	5-J	18-18-38
Hardin	6-H	18-18-38
J. R. Holt	1-C	36-18-37
Lea State "FO"	1-N	14-17-37

MAY 5, 1960

GULF OIL CORPORATION 4 wells

Meet at Grimes Well No. 1-I, Section 33-T18S-R38E at 7:30 a.m.

W. D. Grimes B	1-I	33-18-38
W. D. Grimes B	2-H	33-18-38
W. D. Grimes B	3-B	33-18-38
W. D. Grimes B	4-A	33-18-38

NEW MEXICO OIL CONSERVATION COMMISSION
Post Office Box 2045
Hobbs, New Mexico

TO: ALL OPERATORS WITH WELLS IN THE HOBBS, BOWERS, BYERS-QUEEN GAS, AND HOBBS-DRINKARD POOLS.

SUBJECT: ANNUAL WITNESSED CASING LEAK SURVEY IN THE HOBBS AREA.

In accordance with the Secretary-Director's Memorandum No. 33-57, wells involved in the annual witnessed casing leak inspection shall be readied in the manner and on the dates as herein outlined.

1) All wells must be shutin for 24 hours before inspection is to be witnessed.

2) All cellars shall be dug in such a manner as to expose outlets of bradenheads from the first string of pipe cemented in the well and all subsequent heads to (and including) the tubing head, unless Form C-103 has been filed showing satisfactory connections below ground level and proper identification above ground level.

3) One opening from all bradenheads shall be connected to a second valve above the surface. This second valve must be closed in compliance with paragraph 1.

4) Operators shall furnish connections and personnel to assist in the opening of valves. Where possible, pressure gauges should be furnished to record pressures.

5) The Proration Manager shall be notified when wells fail to meet preparation requirements and such wells will be removed from the Proration Schedule. The loss of allowable will begin from the scheduled date of the inspection.

6) If unusual mechanical difficulties or workover operations make it impossible for wells to meet the time set forth on the Date-Time Schedule, tests may be re-scheduled after these wells are inspected by a Commission representative. The Commission shall be notified at least forty-eight hours prior to test time in the event such conditions should occur.

7) The Commission requests that company personnel be present at the time and place spelled out on the attached Date-Time Schedule. In every case, a Commission representative will meet company personnel as scheduled and proceed to inspect all wells in logical order. If the operator or his representative cannot be present, the Commission shall be notified in advance.

8) For further information please contact Leslie Clements, Oil and Gas Inspector - phone - EXpress 3-6161, Hobbs, New Mexico.

LAC:mg
Attachment: Date-Time Schedule

DATE-TIME SCHEDULE

APRIL 3, 1961

SKELLY OIL COMPANY — 11 wells

Meet at Skelly Grimes Camp west of Hobbs at 7:30 a.m.

Fowler	1-C	31-18-38
Fowler	2-F	31-18-38
Fowler	3-C	31-18-38
Fowler	4-F	31-18-38
Hobbs E	1-A	26-18-37
Mexico U	1-B	8-19-38
Mexico U	2-G	8-19-38
McKinley	1-D	20-18-38
State A	1-M	17-18-38
Turner	1-F	34-18-38
Turner	2-C	34-18-38

SINCLAIR OIL AND GAS COMPANY

Meet at Sinclair Camp south of Hobbs at 1:30 p.m. — 7 wells

Crump	1-B	15-19-38
Crump	2-B	15-19-38
Grimes	1-E	28-18-38
Grimes	2-F	28-18-38
Grimes	3-D	28-18-38
Grimes	4-C	28-18-38
Selman	1-G	15-19-38

APRIL 4, 1961

PAN AMERICAN PETROLEUM CORPORATION — 27 wells

Meet at Pan American Camp south of Hobbs at 7:30 a.m.

Byers "A"	8-D	3-19-38
Byers "A"	11-C	3-19-38
Byers "A"	26-F	3-19-38
Byers "A"	29-E	3-19-38
Byers "B"	8-B	4-19-38
Byers "B"	11-A	4-19-38
Byers "B"	26-H	4-19-38
Byers "B"	33-G	4-19-38
W. S. Capps	7X-J	3-19-38
W. S. Capps	8-L	3-19-38
W. S. Capps	10X-I	3-19-38
W. S. Capps	11-K	3-19-38
W. S. Capps	30X-O	3-19-38
McKinley	8-D	5-19-38
McKinley	12-C	5-19-38
McKinley	19-E	5-19-38
State A Tr. 1	8-D	4-19-38

PAN AMERICAN PETROLEUM CORPORATION, (continued)

State A Tr. 1	11-C	4-19-38
State A Tr. 1	26-F	4-19-38
State A Tr. 1	33-E	4-19-38
State A Tr. 2	4-J	4-19-38
State A Tr. 2	11-I	4-19-38
State A Tr. 2	26-P	4-19-38
State A Tr. 2	29-O	4-19-38
State A Tr. 3	3-K	4-19-38
State A Tr. 3	26-N	4-19-38
State A Tr. 1	11X-C	4-19-38

APRIL 5, 1961

SHELL OIL COMPANY — 28 wells

Meet at Shell Camp north of Hobbs on North Grimes at 7:30 a.m.

Berry	1-P	31-18-38
Berry	2-J	31-18-38
Berry	3-I	31-18-38
Berry	4-O	31-18-38
Berry	6-P	31-18-38
Berry	7-J	31-18-38
Grimes	1-M	28-18-38
Grimes	2-L	28-18-38
Grimes	3-K	28-18-38
Grimes	4-N	28-18-38
McKinley A	1-M	19-18-38
McKinley A	2-O	19-18-38
McKinley A	3-P	19-18-38
McKinley A	4-N	19-18-38
McKinley A	5-J	19-18-38
McKinley A	6-K	19-18-38
McKinley A	7-L	19-18-38
McKinley A	8-I	19-18-38
McKinley B	1-K	20-18-38
McKinley B	2-N	20-18-38
McKinley B	3-M	20-18-38
McKinley B	4-L	20-18-38
Sanger	1-M	27-18-38
Sanger	2-N	27-18-38
Sanger	3-L	27-18-38
Sanger	4-E	27-18-38
Sanger	5-K	27-18-38
State A	1-G	32-18-38

APRIL 6, 1961

SHELL OIL COMPANY — 16 wells

Meet at Shell Camp on North Grimes at 7:30 a.m.

SHELL OIL COMPANY (continued)

Rice	1-P	13-18-37
Rice	2-O	13-18-37
Rice	3-I	13-18-37
Rice	4-J	13-18-37
State A	2-G	32-18-38
State A	3-H	32-18-38
State A	4-G	32-18-38
State B	1-D	33-18-38
State B	2-C	33-18-38
State D	1-F	24-18-37
State D	2-C	24-18-37
State F	2-G	23-18-37
State F	3-B	23-18-37
Thorpe	1-J	10-19-38
Turner	1-G	34-18-38
Turner	2-B	34-18-38

WALKER OIL CORPORATION — 2 wells

Meet at Oil Conservation Commission at 3 p.m. (April 6, 1961)

Terry	1-O	10-19-38
Terry	2-O	10-19-38

APRIL 10, 1961

SAMEDAN OIL CORPORATION — 18 wells

Meet at Samedan Camp on North Grimes at 7:30 a.m.

Byers	1-B	3-19-38
Byers	2-G	3-19-38
Byers	3-A	3-19-38
Byers	4-H	3-19-38
Moon A	1-G	28-18-38
Moon A	2-B	28-18-38
Moon B	1-H	28-18-38
Moon B	2-A	28-18-38
State B	1-F	25-18-37
State B	2-E	25-18-37
State C	1-N	24-18-37
State C	2-K	24-18-37
State C	3-L	24-18-37
State C	4-M	24-18-37
Turner A	1-J	34-18-38
Turner A	2-O	34-18-38
Turner B	1-I	34-18-38
Turner B	2-P	34-18-38

APRIL 11, 1961

PAN AMERICAN PETROLEUM CORPORATION — 28 wells

Meet at Pan American Camp at 7:30 a.m.

W. S. Capps	26-N	3-19-38
W. S. Capps	27-P	3-19-38
W. S. Capps	31-M	3-19-38
Leech NW/15	24-F	15-19-38
State A Tr. 5	1-A	9-19-38
State A Tr. 5	8-B	9-19-38
State A Tr. 5	26-H	9-19-38
State A Tr. 5	29-G	9-19-38
State A Tr. 6	11-C	9-19-38
State A Tr. 6	24-F	9-19-38
State A Tr. 7	8-D	10-19-38
State A Tr. 7	29-E	10-19-38
State A Tr. 8	24-N	10-19-38
State A Tr. 8	29-M	10-19-38
State A Tr. 8	36-N	10-19-38
State A Tr. 9	1-C	15-19-38
State A Tr. 9	13-C	15-19-38
O. B. Terry	8-D	9-19-38
Terry Tr. 1	8-J	9-19-38
Terry Tr. 1	11-I	9-19-38
Terry Tr. 2	8-L	10-19-38
Terry Tr. 2	13-K	10-19-38
Terry Tr. 3	21-E	9-19-38
B. L. Thorp	7X-B	10-19-38
B. L. Thorp	11-C	10-19-38
B. L. Thorp	26-F	10-19-38
B. L. Thorp	30X-G	10-19-38
Turner Tr. 1	8-D	34-18-38

APRIL 12, 1961

TIDEWATER OIL COMPANY & GETTY OIL COMPANY — 16 wells

Meet at Tidewater Camp in Hobbs at 7:30 a.m.

Grimes	1-I	29-18-38
Grimes	3-I	29-18-38
Grimes	4-H	29-18-38
Hardin	1-G	19-18-38
Hardin	2-H	19-18-38
Hardin	3-B	19-18-38
Hardin	4-A	19-18-38
McKinley	1-G	30-18-38
McKinley	2-H	30-18-38
McKinley	3-H	30-18-38
McKinley	4-B	30-18-38
McKinley	5-A	30-18-38

TIDEWATER OIL COMPANY & GETTY OIL COMPANY (continued)

McKinley	6-G	30-18-38
McKinley	7-B	30-18-38
State B	1-H	14-18-37
State B	2-G	14-18-37

APRIL 13, 1961

THE OHIO OIL COMPANY — 16 wells

Meet at Ohio Camp west of Hobbs at 7:30 a.m.

State 9	1-N	9-19-38
State 30	1-K	30-18-38
State 30	2-N	30-18-38
State 30	3-L	30-18-38
State 30	5-K	30-18-38
State 30	6-M	30-18-38
State 30	7-N	30-18-38
State 30	8-L	30-18-38
State 30	9-M	30-18-38
State 32	2-P	32-18-38
State 32	3-I	32-18-38
State 32	4-J	32-18-38
State 32	5-O	32-18-38
State 32	6-O	32-18-38
State 32	7-P	32-18-38
State 32	8-I	32-18-38

APRIL 17, 1961

AMERADA PETROLEUM CORPORATION — 28 wells

Meet at Hardin Well No. 1-M, Section 18-T18S-R38E at 7:30 a.m.

Hardin	1-M	18-18-38
Hardin	2-N	18-18-38
Hardin	3-L	18-18-38
Hardin	5-K	18-18-38
Hardin B	4-N	18-18-38
McKinley	1-D	30-18-38
McKinley	2-F	30-18-38
McKinley	3-C	30-18-38
McKinley	4-E	30-18-38
McKinley B	5-F	30-18-38
McKinley B	6-C	30-18-38
State A	1-B	32-18-38
State A	2-A	32-18-38
State A	3-B	32-18-38
State B	1-F	29-18-38
State B	2-G	29-18-38
State B	3-B	29-18-38
State B	4-C	29-18-38

AMERADA PETROLEUM CORPORATION, (continued)

State B	5-G	29-18-38
State B	6-F	29-18-38
State C	1-A	36-18-37
State C	2-H	36-18-37
State C	3-G	36-18-37
State E	1-E	24-18-37
State E	2-D	24-18-37
State WH "B"	1-O	14-18-37
State WH "B"	2-K	14-18-37
State WH "C"	1-I	8-19-38

APRIL 18, 1961

PAN AMERICAN PETROLEUM CORPORATION — 23 wells

Meet at Pan American Camp at 7:30 a.m.

McKinley	1-C	5-19-38
McKinley	6-D	5-19-38
McKinley	26-F	5-19-38
McKinley	29-E	5-19-38
State A Tr. 4	8-L	5-19-38
State A Tr. 4	11-K	5-19-38
State A Tr. 4	21-M	5-19-38
State A Tr. 4	24-N	5-19-38
State A Tr. 10	23-P	33-18-38
State A Tr. 10	26-P	33-18-38
State G	1-E	33-18-38
State G	2-F	33-18-38
State G	3-F	33-18-38
State G	4-E	33-18-38
State H	1-C	6-19-38
State H	2-F	6-19-38
State H	3-D	6-19-38
Turner Tr. 1	29-E	34-18-38
Turner Tr. 2	8X-L	34-18-38
Turner Tr. 2	11-K	34-18-38
Turner Tr. 2	26-N	34-18-38
Turner Tr. 2	29-M	34-18-38
Turner Tr. 2	5-L	34-18-38

APRIL 19, 1961

HUMBLE OIL AND REFINING COMPANY — 21 wells

Meet at Humble Camp on Grimes at 7:30 a.m.

Bowers A	1-I	30-18-38
Bowers A	2-J	30-18-38
Bowers A	3-M	29-18-38
Bowers A	4-P	30-18-38
Bowers A	5-I	30-18-38

HUMBLE OIL AND REFINING COMPANY, (continued)

Bowers A	6-I	30-18-38
Bowers A	8-O	30-18-38
Bowers A	9-E	29-18-38
Bowers A	10-L	29-18-38
Bowers A	13-J	30-18-38
Bowers A	14-M	29-18-38
Bowers A	15-P	30-18-38
Bowers A	16-O	30-18-38
Bowers B	1-D	29-18-38
W. D. Grimes	1-A	29-18-38
State A	1-I	25-18-37
State A	5-O	25-18-37
State A	6-K	25-18-37
State A	7-P	25-18-37
State A	8-J	25-18-37
State A	9-N	25-18-37

APRIL 20, 1961

W. K. BYROM — 8 wells

Meet at Bradley Well No. 1-I, Section 6-T19S-R38E at 8 a.m.

Bradley	1-I	6-19-38
Bradley	2-P	6-19-38
Bradley	5-G	6-19-38
Bradley	1-J	6-19-38
Bradley B	2-O	6-19-38
Holt	1-B	36-18-37
Orcutt	1-C	8-19-38
Orcutt	2-D	8-19-38

ALBERT GACKLE, OPERATOR — 1 well

Meet at Terry Well No. 1-A, Section 8-T19S-R38E at 1:15 p.m.

Terry	1-A	8-19-38

THE ATLANTIC REFINING COMPANY — 7 wells

Meet at Bradley Well No. 1-A, Section 6-T19S-R38E at 2:00 p.m.

Bradley	1-A	6-19-38
Bradley	2-A	6-19-38
Bradley	3-B	6-19-38
Bradley	4-H	6-19-38
Bradley	6-B	6-19-38
Bradley	7-H	6-19-38
Grimes	1-O	20-18-38

APRIL 24, 1961

C. H. SWEET OIL COMPANY — 8 wells

Meet at Grimes Well No. 1A-I, Section 20-T18S-R38E at 7:30 a.m.

Bowers B	2A-J	20-18-38
Bowers B	3A-P	20-18-38
W. D. Grimes	1A-I	20-18-38
W. D. Grimes	3A-I	20-18-38
McKinley	2-H	20-18-38
State F	2A-H	23-18-37
State F	3A-I	23-18-37
State F	4A-A	23-18-37

R. M. MORAN — 4 wells

Meet at Hardin B Well No. 1-E, Section 18-T18S-R38E at 1:15 p.m.

Hardin B	1-E	18-18-38
Hardin B	2-F	18-18-38
Hardin B	3-D	18-18-38
Hardin B	4-C	18-18-38

MORAN OIL PRODUCING AND DRILLING COMPANY — 4 wells

Meet at Rice Well No. 1-H, Section 13-T18S-R37E at 2:30 p.m.

Rice	1-H	13-18-37
Rice	2-G	13-18-37
Rice	3-A	13-18-37
Rice	4-B	13-18-37

APRIL 25, 1961

CITIES SERVICE PETROLEUM COMPANY — 14 wells

Meet at Cities Service Camp, Hobbs, at 7:30 a.m.

Fowler	1-A	31-18-38
Fowler	2-B	31-18-38
Fowler	3-G	31-18-38
Fowler	4-H	31-18-38
Fowler	5-A	31-18-38
Fowler	6-H	31-18-38
Fowler	7-B	31-18-38
Fowler	8-G	31-18-38
Hardin	1-F	19-18-38
Hardin	2-E	19-18-38
Hardin	3-C	19-18-38
Hardin	4-D	19-18-38
Hardin	5-D	19-18-38
Shipp	1-E	23-18-37

APRIL 26, 1961

TEXACO INC. 9 wells

Meet at TEXACO south of Hobbs at 7:30 a.m.

McKinley	1-L	4-19-38
McKinley	2-I	5-19-38
McKinley	3-M	4-19-38
McKinley	4-P	5-19-38
Selman	1-J	15-19-38
State CDD & B	1-A	25-18-37
State CDD & B	2-H	25-18-37
State CDD & B	3-G	25-18-37
State CDD & B	4-B	25-18-37

TEXAS PACIFIC COAL AND OIL COMPANY 10 wells

Meet at State G Well No. 1-P, Section 24-T18S-R37E at 1:15 p.m.

State G	1-P	24-18-37
State G	2-I	24-18-37
State G	3-J	24-18-37
State G	4-O	24-18-37
State V A/c-1	1-I	14-18-37
State V A/c-1	2-J	14-18-37
State V A/c-2	3-C	23-18-37
State V A/c-2	4-F	23-18-37
State V A/c-2	5-K	23-18-37
State V A/c-2	6-N	23-18-37

APRIL 27, 1961

SOCONY MOBIL OIL COMPANY, INC. 4 wells

Meet at Berry Well No. 1-K, Section 31-T18S-R38E at 7:30 a.m.

Berry	1-K	31-18-38
Berry	2-N	31-18-38
Berry	3-L	31-18-38
Berry	4-M	31-18-38

SUNRAY MID-CONTINENT OIL COMPANY 4 wells

Meet at Fowler Well No. 1-D, Section 31-T18S-R38E at 9:00 a.m.

Fowler	1-D	31-18-38
Fowler	4-E	31-18-38
Fowler C	2-D	31-18-38
Fowler C	3-E	31-18-38

APRIL 27, 1961 (continued)

NEIL E. SALSICH — 2 wells

Meet at O. B. Terry Well No. 1-H, Section 8-T19S-R38E at 1:15 p.m.

O. B. Terry	1-H	8-19-38
O. B. Terry A	1-L	9-19-38

BYARD BENNETT — 1 well

Meet at Gulf State Well No. 1-B, Section 26-T18S-R37E at 2:30 p.m.

Gulf State	1-B	26-18-37

MAY 1, 1961

CONTINENTAL OIL COMPANY — 32 wells

Meet at Continental Office on North Turner at 7:30 a.m.

Grimes	1-O	28-18-38
Grimes	2-P	28-18-38
Grimes	3-J	28-18-38
Grimes	4-I	28-18-38
Grimes	5-O	28-18-38
Grimes	6-K	28-18-38
State A-5	1-J	5-19-38
State A-5	2-O	5-19-38
State A-29	1-J	29-18-38
State A-29	2-N	29-18-38
State A-29	3-K	29-18-38
State A-29	4-J	29-18-38
State A-29	5-K	29-18-38
State A-29	6-N	29-18-38
State A-33	1-M	33-18-38
State A-33	2-L	33-18-38
State A-33	3-K	33-18-38
State A-33	4-J	33-18-38
State A-33	5-O	33-18-38
State A-33	6-N	33-18-38
State A-33	7-G	33-18-38
State A-33	8-L	33-18-38
State A-33	9-M	33-18-38
State A-33	10-K	33-18-38
State A-33	11-G	33-18-38
State B-13	1-N	13-18-37
State B-13	2-M	13-18-37
State B-13	4-F	13-18-37
State B-13	5-E	13-18-37
State B-13	6-C	13-18-37
State B-25	1-C	25-18-37
State B-25	2-D	25-18-37

MAY 2, 1961

GULF OIL CORPORATION — 36 wells

Meet at W. D. Brimes B Well No. 1-I, Section 33-T18S-R38E at 7:30 a.m.

Graham State A	1-H	24-18-37
Graham State A	2-A	24-18-37
Graham State A	3-G	24-18-37
Graham State A	4-B	24-18-37
W. D. Grimes A	1-D	32-18-38
W. D. Grimes A	2-F	32-18-38
W. D. Grimes A	3-K	32-18-38
W. D. Grimes A	4-C	32-18-38
W. D. Grimes A	5-M	32-18-38
W. D. Grimes A	7-C	32-18-38
W. D. Grimes A	8-E	32-18-38
W. D. Grimes A	9-L	32-18-38
W. D. Grimes A	10-D	32-18-38
W. D. Grimes A	11-F	32-18-38
W. D. Grimes A	12-L	32-18-38
W. D. Grimes A	13-E	32-18-38
W. D. Grimes A	14-M	32-18-38
W. D. Grimes A	15-N	32-18-38
W. D. Grimes B	1-I	33-18-38
W. D. Grimes B	2-H	33-18-38
W. D. Grimes B	3-B	33-18-38
W. D. Grimes B	4-A	33-18-38
W. D. Grimes B	5-B	33-18-38
W. D. Grimes B	6-I	33-18-38
W. D. Grimes C	1-M	21-18-38
W. D. Grimes C	2-N	21-18-38
W. D. Grimes C	3-L	21-18-38
Hardin	1-O	18-18-38
Hardin	2-P	18-18-38
Hardin	3-I	18-18-38
Hardin	4-G	18-18-38
Hardin	5-J	18-18-38
Hardin	6-H	18-18-38
Hardin	7-B	18-18-38
J. R. Holt	1-C	36-18-37
Lea State "FO"	1-N	14-17-37

MAY 3, 1961

STANDARD OIL COMPANY OF TEXAS — 7 wells

Meet at McKinley Well No. 1-F, Section 20-T18S-R38E at 7:30 a.m.

McKinley	1-F	20-18-38
McKinley	2-E	20-18-38
State 17	1-L	17-18-38
State 29	1-P	29-18-38
State 29	2-O	29-18-38
State 29	3-P	29-18-38
State 29	4-O	29-18-38

MAY 3, 1961 (continued)

SUN OIL COMPANY — 6 wells

Meet at Sun Oil Camp in Hobbs at 10:00 a.m.

McKinley	1-A	5-19-38
McKinley	2-H	5-19-38
McKinley	3-B	5-19-38
McKinley	4-G	5-19-38
McKinley	5-B	5-19-38
McKinley	6-A	5-19-38

SOUTHERN PETROLEUM EXPLORATION COMPANY — 2 wells

Meet at Morris A Well No. 1-O, Section 21-T18S-R38E at 1:15 p.m.

Morris A	1-O	21-18-38
Morris B	1-P	21-18-38

JOHN A. YATES — 3 wells

Meet at Shell State Well No. 1-P, Section 23-T18S-R37E at 2:30 p.m.

Shell State	1-P	23-18-37
Shell State	2-J	23-18-37
Shell State	3-O	23-18-37

MAY 4, 1961

RICE ENGINEERING AND OPERATING, INC. — 3 wells

Meet at NMOCC, Hobbs, at 8:00 a.m.

Hobbs	15-E	15-19-38
Hobbs	25-P	25-18-37
Hobbs	29-F	29-18-38

NEVILLE G. PENROSE, INC. — 1 well

Meet at Stanolind State "A" Well No. 1-P, Section 14-T18S-R37E at 10:00 a.m.

Stanolind State "A" 1-P	14-18-37

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. BOX 2045

HOBBS, NEW MEXICO

NOTICE

TO: All Hobbs Pool Area Operators

SUBJECT: Casing Leak Survey

You are hereby reminded that the Directors Memorandum No. 33-57, requires that a quarterly casing leak survey be conducted, and that the results of the first test are to be filed by April 15, 1958. This information is to be filed on the enclosed form. Additional copies can be obtained at the Hobbs District office.

The second quarterly test will be witnessed by Commission personnel.

A detailed schedule will be distributed on or about March 1, 1958. A company desiring any special consideration insofar as it pertains to the mechanics of the scheduling, contact Mr. Eric Engbrecht.

Date sent out
January 22, 1958

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. BOX 2045

HOBBS, NEW MEXICO

To: All operators in the Hobbs, Bowers, Byers Queen Gas and Hobbs Drinkard Pools.

In accordance with the memorandum issued by the District Engineer pertaining to casing pressure tests in the above-named pools, the following wells will be readied for an annual inspection in the manner and on the date as herein outlined.

1. All wells must be shut in 24 hours before inspection will be witnessed

2. All cellars will be dug in a manner to expose the outlets of all bradenheads from the first string of pipe cemented in the well and to expose all subsequent heads to and including the tubing head, unless a C-103 has been filed, indicating satisfactory connections below the ground level and with proper identification above ground level.

3. One opening from all bradenheads will be connected above the surface of the ground with a second valve. The second valve must be closed in compliance with paragraph number one.

4. The operator must furnish connections and personnel who will assist in the opening of valves. Pressure gauges to record pressures should also be furnished, if possible.

5. The Proration Manager will be notified of a well that has failed to meet the requirement of preparation as outlined on the date-time schedule, and such well will be immediately removed from the proration schedule. The loss of allowable will begin from the date of the bradenhead inspection of the well.

6. If, due to unusual mechanical difficulties or workover operations, a particular well cannot be made ready at the time set forth on the schedule, its test date may be delayed after inspection of the conditions by the Commission representative. The Commission should be notified at least 48 hours prior to test time for well or wells that require such delays.

7. The Commission expects company personnel to be present at the meeting place on the date and time indicated on the attached schedule. If for any reason the operator or his representative cannot be present, the Commission must be notified in advance.

   In every case, the Commission representative will meet the company personnel at the place and time shown on the schedule and proceed to all listed wells in logical order.

8. For further information or questions, please contact Eric Engbrecht, Express 3-6161, Hobbs, New Mexico.

   Following is a tabulation of the time-date schedule of the wells to be tested in the annual witnessed survey.

SCHEDULE FOR HOBBS AREA

Date-April 1, 1958

Operator-AMERADA PETROLEUM CORP.-Meet at Hardin #1-M, 18-18-38 at 7:30 A.M.
25 wells

Hardin	1-M	18-18-38
"	2-N	"
"	3-L	"
Hardin B	4-N	18-18-36
McKinley	1-D	30-18-38
"	2-F	"
"	3-C	"
"	4-E	"
"	5-F	"
"	6-C	"
State A	1-B	32-18-38
"	2-A	"
"	3-B	32-18-38 (Status)
State B	1-F	29-18-38
"	2-G	"
"	3-B	"
"	4-C	"
"	5-G	"
"	6-F	"
State C	1-A	36-18-37
"	2-H	"
"	3-G	"
State E	1-C	24-18-37
"	2-C	"
State WH "B"	1-O	14-18-37

Date-April 2, 1958

Operator-Tidewater & Getty Oil Co.-Meet at Tidewater Camp at Hobbs at 7:30 A.M.
15 wells

Grimes	1-I	29-18-38
"	3-I	"
"	4-H	"
Hardin	1-G	19-18-38
"	2-H	"
"	3-B	"
"	4-A	"
McKinley	1-G	30-18-38
"	2-H	"
"	3-H	"
"	4-B	"
"	5-A	"
"	6-G	"
"	7-B	"
State B	1-H	14-18-37

Date-April 3, 1958

Operator-CONTINENTAL OIL CO-Meet at Continental Office on N. Turner at 7:30 A.M.
32 wells

Grimes	1-O	28-18-38
"	2-P	"
"	3-J	"
"	4-I	"
"	5-O	" (Status)
"	6-K	" (Status)
State A-5	1-J	5-19-38
"	2-O	"
State A-29	1-J	29-19-38
"	2-N	"
"	3-K	"
"	4-J	"
"	5-K	"
"	6-N	"
State A-33	1-M	33-18-38
"	2-L	"
"	3-K	"
"	4-J	"
"	5-O	"
"	6-N	"
"	7-G	"
"	9-M	"
"	10-K	"
"	11-G	"
State B-13	1-N	13-18-37
"	2-M	"
"	4-F	"
"	5-E	"
"	6-C	"
State B-25	1-C	25-18-37
"	2-D	"
State A-33	8-L	33-18-38

Date-April 7, 1958

Operator-SHELL OIL COMPANY-Meet at McKinley A #1-M, 19-18-38 at 7:30 A. M.
28 wells

Berry	1-P	31-18-38
"	2-J	31-18-38
"	3-I	"
"	4-O	"
"	6-P	"
"	7-J	"
Grimes	1-M	28-18-38
"	2-L	"
"	3-K	"
"	4-N	"
McKinley A	1-M	19-18-38
"	2-O	"
"	3-P	"

SHELL OIL COMPANY, CONTINUED

McKinley A	4-N	19-18-38
"	5-J	"
"	6-K	"
"	7-D	"
"	8-I	"
McKinley B	1-K	20-18-33
"	2-N	"
"	3-M	"
"	4-L	"
Sanger	1-M	27-18-38
"	2-N	"
"	3-L	"
"	4-E	"
"	5-K	"
State A	1-G	32-18-38

Date-April 8, 1958

Operator-PAN AMERICAN OIL CORP-Meet at Pan American Camp South of Hobbs at 7:30AM
28 wells

Byers NW/3	8-D	3-19-38
"	11-C	"
"	26-F	"
"	29-E	"
Byers NE/4	8-B	4-19-38
"	11-A	"
"	26-H	"
"	33-G	"
Capps SE/3	7XJ	3-19-38
"	10XJ	"
"	30XO	"
Capps SW/3	8-L	"
"	11-K	"
McKinley	8-D	5-19-38
"	12-C	"
"	19-E	"
State A "1"	8-D	4-19-38
"	11-C	"
"	26-F	"
"	33-E	"
State A "2"	4-J	"
"	11-I	"
"	26-P	"
"	29-O	"
State A "3"	3-K	"
"	26-N	"
State A Tr. 1 "D"	11XC	"
"	7-D	" T/A

Date-April 9, 1958

Operator-HUMBLE OIL & RFG. CO.-Meet at Humble Camp on Grimes at 7:30 A.M.
21 wells

Bowers A	1-I	30-18-38
"	2-J	"
"	3-M	29-18-38
"	4-P	30-18-38
"	5-I	"
"	6-I	"
"	8-O	"
"	9-E	29-18-38
"	10-L	"
"	12-L	"
"	13-J	30-18-38
"	14-M	29-18-38
"	15-P	30-18-38
"	16-O	"
Bower B	1-D	29-18-38
Grimes	1-A	"
State A	1-I	25-18-37
"	5-O	"
"	6-K	"
"	7-P	"
"	2-P	"

Date-April 10, 1958

Operator-SHELL OIL COMPANY-Meet at Rice #1-P, 13-18-37 at 7:30 A. M.
17 wells

Rice	1-P	13-18-37
"	2-O	"
"	3-I	"
"	4-J	"
State A	2-G	32-18-37
"	3-C	32-18-38
"	4-H	"
State B	1-D	33-18-38
"	2-C	"
State D	1-F	24-18-37
"	2-C	"
State F	1	23-18-37
"	2-G	"
"	3-B	"
Thorp	1-J	19-19-38
Turner	1-G	34-18-38
"	2-B	34-18-37

Date-April 10, 1958

Operator-WALKER OIL CO.-Meet at Terry #1-0, 10-19-38 at 3:00 P.M.
2 wells

Terry	1-0	10-19-38
Terry	2-0	"

Date-April 14, 1958

Operator-W. K. BYROM-Meet at Bradley #1, 6-19-38 at 8:00 A.M.
8 wells

Bradley	1-I	6-19-38
"	2-P	"
"	5-G	"
Bradley B	1-J	"
"	2-O	"
Holt	1-B	36-18-37
Orcutt	1-C	8-19-38
"	2-B	"

Date-April 14, 1958

Operator-ALBERT GACKLE-Meet at Terry #1-A, 8-19-38 at 1:15 P.M.
1 well

Terry	1-A	8-19-38

Date-April 14, 1958

Operator-ATLANTIC RFG. CO.-Meet at Bradley #1-A, 6-19-38 at 2:00 P.M.
7 wells

Bradley	1-A	6-19-38
"	2-A	"
"	3-B	"
"	4-H	"
"	6-B	"
"	7-H	"
Grimes	1-O	20-18-38

Date-April 15, 1958

Operator-PAN AMERICAN PET. CORP.-Meet at Pan American Camp at 7:30 A.M.
28 wells

Capps SW/3	26-N	3-19-38
Capps SE/3	27-P	"
"	31-M	"

PAN AMERICAN PET. CORP., CONTINUED

Leech	24-F	15-19-38
State A "5"	1-A	9-19-38
"	8-B	"
"	26-H	"
"	29-G	"
State A "6"	11-C	"
"	24-F	"
State A "7"	8-D	10-19-38
"	29-E	"
State A "8"	24-N	"
"	36-N	"
"	29-M	"
State A "9"	1-C	15-19-38
"	13AC	"
Terry	8-D	9-19-38
Terry "1"	8-J	"
"	11-K	"
Terry "2"	8-L	10-19-38
"	13-K	"
Terry "3"	21-E	9-19-38
Thorp	7XB	10-19-38
"	11-C	"
"	26-F	"
"	30XG	"
Turner "1"	8-D	34-18-38

Date-April 16, 1958

Operator-CITIES SERVICE OIL CO.-Meet at Cities Service Camp at Hobbs at 7:30 A.M.
12 wells

Fowler	1-A	31-18-38
"	2-B	"
"	3-G	"
"	4-H	"
"	5-A	"
"	6-H	"
"	7-B	"
"	8-G	"
Hardin	1-F	19-18-38
"	2-E	"
"	3-C	"
"	5-D	"

Date-April 17, 1958

Operator-THE TEXAS COMPANY-Meet at Texas Company South of Hobbs at 7:30 A.M.
9 wells

McKinley	2-I	5-19-38
"	1-L	4-19-38

THE TEXAS COMPANY, CONTINUED

McKinley	3-M	4-19-38
"	4-P	5-19-38
Selman	1-J	15-19-38
State CDD & B	1-A	25-18-37
"	2-H	"
"	3-G	"
"	4-B	"

Date-April 17, 1958

Operator-TEXAS PACIFIC COAL & OIL CO.-Meet at State "G" #1-P, 24-18-37 at 11:00AM
5 wells

State G	1-P	24-18-37
"	2-I	"
"	3-J	"
"	4-O	"
State V Ac/1	1-I	14-18-37

Date-April 17, 1958

Operator-C. H. SWEET-Meet at Grimes #1, 20-18-38 at 1:15 P.M.
10 wells

Federal Bowers	1	20-18-38
Fed. Bowers B	2AJ	"
"	3	"
"	3AP	"
Grimes	1	"
"	3A-I	"
State F	1-A	23-18-37
"	2-H	"
"	3-I	"
"	4-A	"

Date-April 21, 1958

Operator-MORRIS R. ANTWEIL-Meet at McKinley #1-G, 20-18-38 at 8:00 A. M.
2 wells

McKinley	1-G	20-18-38
"	2-H	"

Date-April 21, 1958

Operator-R. M. MORAN-Meet at Hardin B #1-E, 18-18-38 at 9:00 A. M.- 1 well

Hardin B	1-E	18-18-38

Date-April 21, 1958

Operator-MORAN OIL PRODUCING & DRILLING CO.-Meet at Rice #1-H, 13-18-37 at 9:30AM
4 wells

Rice	1-H	13-18-37
"	2-G	"
"	3-A	"
"	4-B	"

Date-April 21, 1958

Operator-MAPENZA OIL CORP.-Meet at Stanolind State #1A-P, 14-18-37 at 11:00 A.M.
1 well

Stanolind State	1A-P	14-18-37

Date-April 21, 1958

Operator-MAGNOLIA PET. CO.-Meet at Berry #1, 31-18-38 at 1:15 P.M.
4 wells

Berry	1-K	31-18-38
"	2-N	"
"	3-L	"
"	4-M	"

Date-April 21, 1958

Operator-SUNRAY MID-CONTINENT OIL CO.-Meet at Fowler #1-D, 31-18-38 at 2:30 P.M.
4 wells

Fowler	1-D	31-18-38
"	4-E	"
Fowler C	2-D	"
"	3-E	"

Date-April 22, 1958

Operator-PAN AMERICAN PET. CORP.-Meet at Pan American Camp at Hobbs at 7:30 A.M.
23 wells

McKinley	1-C	5-19-38
"	6-D	"
"	26-F	"
"	29-E	"
State A "4"	8-L	"
"	11-K	"
"	18-K	"

PAN AMERICAN PET. CORP., CONTINUED

State A "4"	21-M	5-19-38
"	24-N	"
State A Tr. 10	23-P	33-18-38
"	26-P	"
State G	1-E	"
"	2-F	"
"	3-F	"
"	4-E	"
State H	1-C	6-19-38
"	2-F	"
Turner A	5-L	34-18-38
Turner "1"	29XE	"
Turner "2"	8XL	"
"	11-K	"
"	26-N	"
"	29-M	"

Date-April 23, 1958

Operator-OHIO OIL COMPANY-Meet at Ohio Camp West of Hobbs at 8:00 A.M.
15 wells

State 30	1-K	30-18-38
"	2-N	"
"	3-L	"
"	5-K	"
"	6-M	"
"	7-N	"
"	8-K	"
"	9-M	"
State 32	1	32-18-38
"	2-P	"
"	3-I	"
"	4-J	"
"	5-O	"
"	7-P	"
"	8-I	"

Date-April 24, 1958

Operator-STANDARD OIL CO. OF TEXAS-Meet at McKinley #1-F, 20-18-38 at 7:30 A.M.
7 wells

McKinley	1-F	20-18-38
"	2-E	"
State 17	1-L	17-18-38
State	1-P	29-18-38
"	2-O	"
State 29	3-P	"
"	4-O	"

Date-April 24, 1958

Operator-SUN OIL COMPANY-Meet at Sun Oil Co. Camp in Hobbs at 10:00 A.M.
6 wells

McKinley	1-A	5-19-38
"	2-H	"
"	3-B	"
"	4-G	"
"	5-B	"
"	6-A	"

Date-April 24, 1958

Operator-SOUTHERN PET. EXPL. CO.-Meet at Morris A #1-0, 21-18-38 at 1:15 P.M.
2 wells

Morris A	1-0	21-18-38
Morris B	1-P	"

Date-April 24, 1958

Operator-YATES BROTHERS-Meet at Shell State #1-P, 23-18-37 at 2:30 P.M.
3 wells

Shell State	1-P	23-18-37
"	2-J	"
"	3-O	"

Date-April 28, 1958

Operator-SKELLY OIL COMPANY-Meet at Skelly Grimes Camp west of Hobbs at 7:30 A.M.
10 wells

Fowler	1-C	31-18-38
"	2-F	"
"	3-C	"
"	4-F	"
Hobbs E	1-A	26-18-37
Mexico U	1-B	8-19-38
McKinley	1-D	20-18-38
State A	1-M	17-18-38
Turner	1-F	34-18-38
"	2-C	"

Date-April 28, 1958

Operator-SINCLAIR OIL & GAS CO.-Meet at Sinclair Camp south of Hobbs at 1:30 P.M.
7 wells

Crump	1-B	15-19-38
Grimes	1-E	28-18-38

SINCLAIR OIL & GAS CO., CONTINUED

Grimes	2-F	28-18-38
"	3-D	"
"	4-C	"
Selman	1-G	15-19-38
Crump	2-B	"

Date-April 30, 1958

Operator-SAMEDAN OIL CORP.-Meet at Samedan Camp, North Grimes in Hobbs, at 7:30AM
18 wells

Byers	1-B	3-19-38
"	2-G	"
"	3-A	"
"	4-H	"
Moon A	1-G	28-18-38
"	2-B	"
Moon B	1-H	"
"	2-A	"
State B	1-F	25-18-37
"	2-E	"
State C	1-N	24-18-37
"	2-K	"
"	3-L	"
"	4-M	"
Turner A	1-J	34-18-38
"	2-O	"
Turner B	1-I	"
"	2-P	"

Date-May 6, 1958

Operator-GULF OIL CORP.-Meet at Grimes #1, 33-18-38 at 7:30 A.M.
29 wells

Graham State	1-H	24-18-37
"	2-A	"
"	3-G	"
"	4-B	"
Grimes, W. A.	10-D	32-18-38
"	11-F	"
"	12-L	"
"	13-E	"
"	14-M	"
Grimes, W. D.	5-B	33-18-38
"	6-I	"
Grimes, W. D. "A"	1-D	32-18-38
"	2-F	"
"	3-K	"

GULF OIL CORP., CONTINUED

Grimes, W. D. "A"	5-M	32-18-38
"	6-N	" (Status)
"	7-G	"
"	8-E	"
"	9-L	"
"	15-N	"
Grimes, W. D. "C"	1-M	21-18-38
"	2-N	"
"	3-L	"
Grimes, West	4-C	32-18-38
"	15-N	"
Hardin	1-O	18-18-38
"	2-P	"
"	3-I	"
J. R. Holt "D"	1-C	36-18-37

Date-May 7, 1958

Operator-GULF OIL CORP.-Meet at Grimes #1, 33-18-38 at 7:30 A. M.
4 wells

Grimes, W. D. "B"	1-I	33-18-38
"	2-H	"
"	3-B	"
"	4-A	"

July 26, 1957

COPY

Mr. A. L. Porter, Jr., Director
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

The first meeting of the committee that you appointed to study the fresh water pollution problem in the Hobbs area was held on July 19, 1957. A list of the committee members is enclosed for your information.

At this meeting Mr. E. G. Minton, Lea County Hydrologist, gave a brief talk on the general geology and hydrology of the area. Mr. Minton stated that from past studies the water moves at about 7 to 9 inches a day, however due to the Cone of Depression (covering about the area of the City Limits of Hobbs) it probably was moving at two to three times this rate. This Cone of Depression is some 25 feet deep and 5 to 6 miles in diameter causing the water to flow towards the center of Hobbs. When asked for suggestions from committee members he put forth the idea of dewatering the contaminated area and reinjecting the treated water. The difficulty of this type of project would be that water wells in the area would go dry. He made an estimate that if the entire saturated section was opened one well could probably produce 800 to 1,000 gals/min. Mr. Minton also stated that water wells had no casing or plug and abandonment requirements.

After Mr. Minton's talk, Mr. Jack Brown, Chairman, proposed methods of conducting the meetings and the following items were decided upon:

1. Conduct informally
2. Members notify alternates
3. Minimum of minutes
4. Quorum to be 5 members
5. Rule of majority
6. No action of member binding on his organization
7. No charges to committee
8. Only members and alternates attend meetings unless others invited

Mr. Zane Spiegel gave a long talk on the general hydrology of the Hobbs area. Mr. Jack Brown stated that subcommittees would be formed to study specific phases of the problem and the next meeting was called for 9:00 A.M. July 25th at the Hobbs OCC Office.

At the second meeting of this committee, July 25th, numerous items were discussed which took most of the day.

It was the concensus of the members that the area of contamination was small in extent, possibly 2 to 5 acres, and that if as much as 300,000 barrels had entered the fresh water aquifer that due to the fact that the oil would ride on top of the water it would be filtered out within one mile. This is not a final answer but to determine in some manner what we were looking at, 300,000 barrels was assumed to be in the aquifer. Due to the dry water sands in the upper portions of the aquifer within one mile distance it would filter out if it was riding on top of the water.

However the committee is going ahead with its studies. The OCC Hobbs Office has been requested to furnish the committee with information on all remedial work completed and other pertinent information.

A subcommittee was formed, Tidewater Chairman, to investigate the feasibility of the committee recommending the manner in which future water wells should be completed. The following organizations were appointed to this subcommittee:

City Water Board
Samedan Oil Co.
State Engineer

A second subcommittee was formed, Hobbs OCC Chairman, to determine the location of all water wells in the Hobbs Pool area, and determine all physical characteristics of such wells as to pipe, depth and purity of water. The following organizations were appointed to the subcommittee:

Shell Oil Co.
Continental Oil Co.
State Engineer

A third subcommittee was appointed, Samedan Chairman, to investigate contamination of the fresh water aquifer from causes other than oil wells. The following organizations were appointed to this subcommittee:

Pan American Pet. Corp.
City Water Board

The afternoon session was largely taken up by discussing methods of preventing future contamination.

Casing programs and methods the OCC used in checking for leaks was discussed.

Following considerable discussion of preventing future contamination, the committee may recommend the following:

1. That surface pipe set on clamps should be corrected, and that a small diameter pipe be used to vent all surface bradenheads to the atmosphere at all times or install a sensitive gauge.

2. That quarterly tests by operators be submitted to the OCC with the certification that no leaks were found or if leaks were found a program for correction. One such test each year to be witnessed by the OCC.

3. That packers be installed on all flowing wells and the annular space be filled with sweet oil.

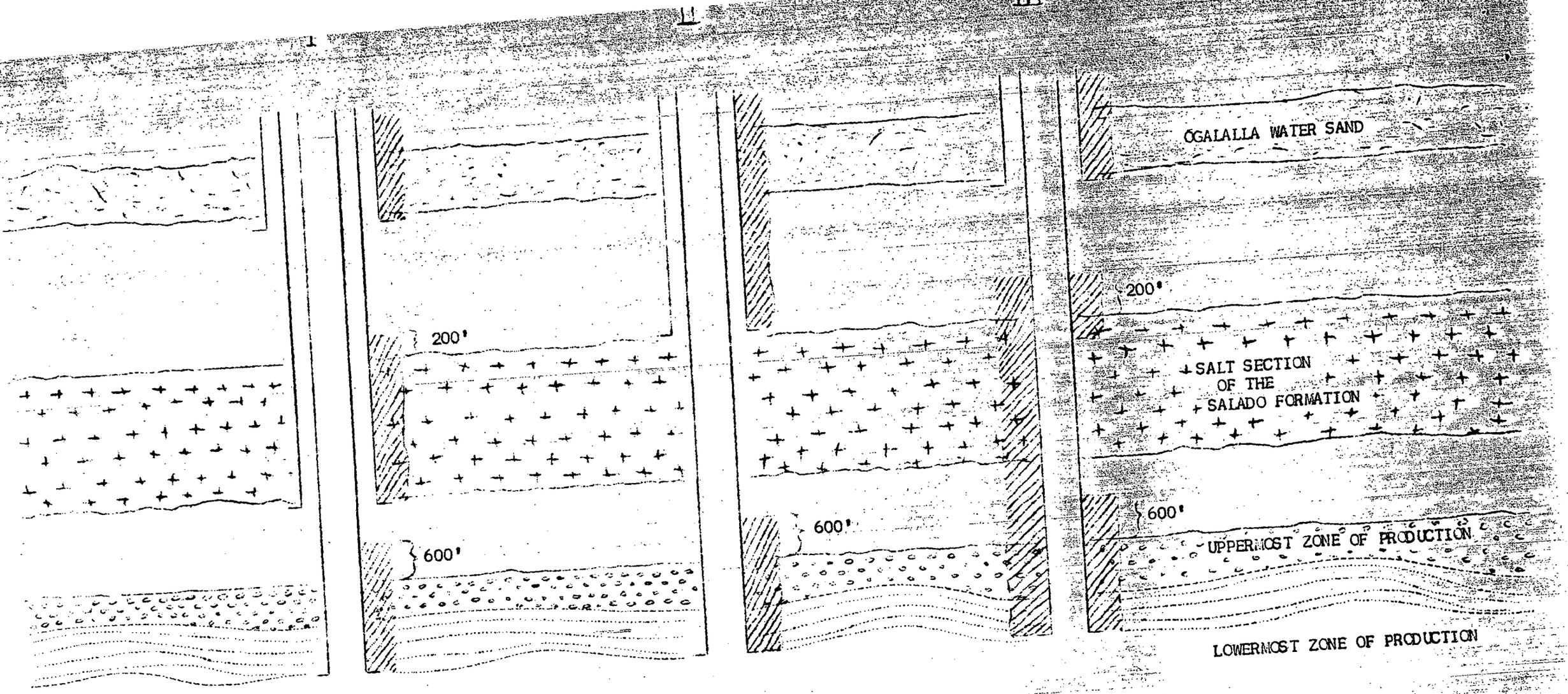
The committee meeting was adjourned until 9:00 A.M. August 1, 1957.

Yours very truly,

OIL CONSERVATION COMMISSION

R. F. Montgomery
Proration Manager

RFM/mc
cc-E. J. Fischer, Engineer
OCC, Hobbs
encl.


OGALALLA WATER SAND
200'
SALT SECTION
OF THE
SALADO FORMATION
600'
UPPERMOST ZONE OF PRODUCTION
LOWERMOST ZONE OF PRODUCTION
200'
600'
600'

I. Shallow Well Casing Program

A. Surface casing
1. Sufficient casing must be run to cover and set through:
   a. the Ogalalla formation
   b. all shallow water sands above the Rustler formation
   c. but never less than
      (1) 250' on the cap
      (2) 200' off the cap
2. Cementing
   a. Sufficient cement must be used to completely fill the annular space behind the casing from the casing seat to the surface.
   b. Cement should be run neat, and a sufficient volume circulated at the surface to insure against contamination.
   c. Should cement fail to circulate:
      (1) a temperature survey must be run to locate the top of the cement, and
      (2) cement must be brought to the surface from the the top found by the temperature survey.
3. Cement waiting time
   a. Pressure must be maintained on the casing a minimum of (12) twelve hours.
   b. No drilling operations may be started for at least (24) twenty-four hours.

B. Intermediate casing
1. Sufficient casing must be run to set through the salt section of the Salado formation.
2. Cementing
   a. Sufficient cement must be used to completely fill the annular space behind the casing from the shoe to a point at least 200' above the top of the salt.
   b. A temperature survey must be run to determine the top of the cement back of the intermediate casing, if cement is not circulated to the surface.
      (1) if the cement top is found to be (50) fifty feet or less from the top of the salt, a second stage cementing operation must be performed to bring cement to the required height.
   c. A minimum of 100 sacks of neat cement should be placed at the casing seat.
3. Cement time
   a. Pressure must be maintained on the casing a minimum of (12) twelve hours, and,
   b. No drilling operations may be started for at least (24) twenty-four hours.

C. Long string and oil string
1. Sufficient casing must be run to segregate the various producing zones and may be set through or in the top of the bottom zone of production.
2. Sufficient cement must be used to completely cover and segregate all zones of production, either present or possible future, from each other, and further to prevent the contamination of any non-productive zones.
   a. A minimum of 600' of cement above the uppermost productive zone (calculated)
   b. A minimum of(50) fifty sacks on any job
   c. A minimum of (50) sacks of neat cement at the casing seat
3. Cement time
   a. Pressure must be maintained on the casing for a minimum of (12) twelve hours.
   b. No drilling or completion operations may be started for at least (48) fourty-eight hours.

II. Shallow Well Casing Program

A. Surface casing
1. Sufficient casing must be run to set:
   a. In the anhydrite at the top of the salt section of the Salado.
   b. In the absence of the salt section, through all known or encountered surface water zones.
2. Cementing
   a. Sufficient cement must be used to completely fill the annular space behind the pipe from the casing seat to the

surface.
b. Cement with various additives may be used; however, a minimum of 200 sacks of neat cement should be run around the casing seat at the bottom of the string.
c. Should cement fail to ciriculate to the surface:
(1) A temperature survey must be run to locate the top of the cement
(2) A second stage cementing operation must be performed to bring cement to the surface.

3. Cement time
a. Pressure must be maintained on the casing for a minimum of (12) twelve hours.
b. No drilling operations may be started for at least (24) twenty-four hours.

B. Intermediate casing
None required for this program.

C. Long string or production casing
1. Sufficient casing must be run to cover and segregate the various zones of production penetrated. Casing may be set through or in the top of the lowest producing zone.
2. Sufficient cement must be used:
a. To completely cover and segregate all known zones of production behind pipe
b. To completely fill the annular space behind the pipe from the casing seat to a point at least 600' above the uppermost known producing zone.
c. A minimum of 150 sacks of cement on any job.
d. A minimum of 100 sacks of neat cement should be run around the casing seat.
3. Cement time
a. Pressure must be maintained on the casing for a minimum of (12) twelve hours.
b. No drilling or completion operations may be started for at least (48) fourty-eight hours.

III. Shallow Well Casing Program

A. Surface casing
1. Sufficient casing must be run to set:
a. Through the Ogalalla formation
b. Through all shallow water sands
c. But never less than:
(1) 250' on the cap
(2) 200' off the cap
2. Cementing
a. Sufficient cement must be used to completely fill the annular space behind pipe from the casing seat to the surface.
b. The cement must be run neat and a sufficient volume ciriculated at the surface to insure against contamination
c. Should cement fail to circulate:
(1) A temperature must be run to determine the top of the cement.
(2) A second stage cementing operation must be performed to bring cement to the surface.
3. Cement time
a. Pressure must be maintained on the casing for a minimum of (12) twelve hours.
b. No drilling operations may be commenced for at least (24) twenty-four hours.

B. Intermediate casing
None required for this program.

C. Long string or production casing
1. Sufficient casing must be run to cover and segregate the various zones of production penetrated. Casing may be set through or in the top of the lowest zone of production.
2. Cementing
a. Sufficient cement must be used to completely cover and protect all known productive zones in one of two ways:

(1) Completely fill the annular space behind pipe from the casing seat to a point 200' above the top of the salt.

(2) To stage cement with one of the various stagging tools, so as

(a) To completely fill the annular space from the shoe to a point 600' above the uppermost producing zone, and,

(b) Completely fill the annular space from the top of the salt to a point 200' above the top of the salt.

(3) A minimum of 150 sacks of neat cement should be used around the casing seat on either of the above methods.

b. A temperature survey must be run to determine the location of cement behind pipe, if option 2, a, (1) above is used.

3. Cement time

a. Pressure must be maintained on the casing for a minimum of (12) twelve hours.

b. No drilling or completion operations may be started for at least (48) fourty-eight hours.

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

September 6, 1957

COPY

Mr. Robert Hoyle, Chief Chemist
El Paso Natural Gas Company
Box 1384
Jal, New Mexico

Dear Mr. Hoyle:

In regard to our conversation of August 21, 1957, about fresh water, oil & Gas analysis, I hope that the enclosed information is what you had in mind.

This information was obtained from the "Hobbs Pool Proration Engineering Report," March 25, 1931.

Water Analysis

Tertiary Water October 16, 1927, T.D. 50 - 62' Sample from bailer Ogallala Formation, Discovery Well, Analysis by Midwest Refining Co. Gas Plant, Salt Creek Field, Wyoming, By H. K. Frank.

	P.P.M.	Reacting Values Percent
Na	29	9.1
Ca	72	27.3
Mg	22	13.6
SO_4	82	13.0
✓ Cl	42	9.0
CO_3	0	0.0
HCO_3	226	28.0
Total P.P.M.	473	100.0

Total Solids by Evaporation 420
Sp. Gr. 1.002
Sodium Calculated, not actually determined

Upper Dockum Group- March 28, 1929, Sample 455 - 462 by bailer, Midwest Capps #31 SW/4 of Section 3, Township 19 South, Range 38 East. T.D. 465' Analysis by H. K. Frank on April 13, 1929.

	P.P.M.	Reacting Values Percent
Na	2363	43.3
Ca	200	4.2
Mg	70	2.5

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

	P.P.M.	Reacting Values Percent
SO_4	1010	8.8
Cl	3370	40.3
CO_3	0	0.0
HCO_3	134	0.9
Total P.P.M.	7147	100.0
Total Solids by evaporation 6740		
Sp. Gr. 1.004		
Organic Matter Present		
Sodium Calculated		

Santa Rosa Water On December 21, 1927, Sample by bailer from 1,235 - 50' T.D. 1,250 analysis by H. K. Frank from discovery well. Analysis run January 5, 1928.

	P.P.M.	Reacting Values Percent
Na	730	49.5
Ca	6	0.5
Mg	Trace	0.0
SO_4	716	23.4
Cl	143	6.3
CO_3	51	2.7
HCO_3	685	17.6
Total P.P.M.	2,331	100.0
Total Solids by evaporation 1,660		
Sp. Gr. 1.005		
Sodium Calculated.		

Big Gas Pay (Queen)

The chemical composition of the water from the "Bowers sand" is probably nearly identical with that from the big gas pay. Both are very salty.

On July 15, 1930, a sample of water from the big gas pay was taken from the bailer of Midwest Byers #33, NE/4 of Sec. 4, Township 19 South, Range 38 East, depth of water 3,720 - 25', depth of hole 3,725'. Analyzed August 7, 1930, by H. K. Frank.

	P.P.M.	Reacting Values Percent
Na	84,292	34.9
Ca	14,200	6.8
Mg	10,500	8.3
SO_4	682	0.14
Cl	185,000	49.81
CO_3	0	0.00
HCO_3	279	0.05
Total P.P.M.	294,953	100.00

Total Solids by evaporation 284,700
Sodium calculated
Analysis not corrected for specific gravity, hence actual salinity is approximately reported 50,000 P.P.M. less than above.

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

White Lime (San Andres)

On November 8, 1928, a sample of water was obtained from the discovery well, at a T.D. of 4,220'. Analyzed November 16, 1928, by H. K. Frank.

	P.P.M.	Reacting Values Percent
Na	2,733	38.4
Ca	280	4.6
Mg	262	7.0
SO_4	41	0.3
Cl	4,107	37.8
CO_3	0	0.0
HCO_3	2,240	11.9
Total P.P.M.	9,663	100.0

Total Solids by evaporation 7,960
Sodium Calculated
Specific Gravity 1.010
H_2S Present
No Iodine

Analysis of water from Ohio State #1 SW/4 of Sec. 9, Township 19 South, Range 38 East, an extreme edge well, which first found water at 4,208' was deepened to 4,312' finding more water. This sample was analyzed after one year production at an approximate rate of 20 barrels daily. Analyzed December 5, 1930, by R. E. Thurn, U. S. Bureau of Mines.

	P.P.M.	Reacting Values Percent
Na	3,026	40.66
Ca	222	3.42
Mg	233	5.92
SO_4	315	2.02
Cl	4,681	40.78
CO_3	0	0.00
HCO_3	1,421	7.20
OH	0	0.00
Total Solids	9,898	100.00
Specific gravity @ 15.6°C (60°F)	1.0082	

OIL ANALYSIS

Bowers ss
37-40% A.P.I.
Paraffine base
Large Percent N_2
700 BTU per cu ft
Oil analysis by-
J. G. Crawford

White Lime
33-37° A.P.I.
Verges on Asphaltic
CO_2 & H_2S little N_2
1000 BTU per cu ft
Oil analysis by-
J. G. Crawford (U.S.G.S. Midwest, Wyo.)

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

Bowers ss (contd)
July 12, 1930
Humble Bowers #4-A SE/4 30-18-38
Tp. ss. 3,161 - T.D. 3,260

I.P. 234 bbls oil per day
1,500,000 cu ft daily

White Lime (contd)
September 25, 1929
Midwest #1-A 9-19-38
Tp. Wh. Lm. 4045' T.D. 4245'
P.B. 4217'
I. P. 700 bbls oil per day

Sample	I	II	Analysis
Gr. of Crude	39.4	38.3	34.8° API
Centrifuge BS&W	0.80%	0.15%	0.1%
Sulfur	1.07%	0.34%	1.47%
Universal Saybolt Visc. @ 100°F			
	43 Sec.	46 Sec.	43 Sec.
Distillation by Air			Distillation by Air
1st drop	106°F	99°F	115°F
Up to 392°F	37.5%-58.4°	34.3%-57.2°API	34.7%-56.6°API
392°F to 482°F	9.3%-44.0°	10.7%043.7°API	9.0%-38.6°API
482°F to 527°F	6.0%-40.4°	5.5%-40.2°API	6.0%-34.3°API
Vacuum Distillation at 40MM			
Up to 392°F	4.7%	4.8%	4.7%
392°F to 482°F	9.3%	10.2%	8.3%
482°F to 527°F	5.7%	4.8%	5.0%
527°F to 572°F	4.7%	4.9%	4.7%
Residuum	23.0%	14.8%	27.6%
Base	Paraffine	Paraffine	Intermediate B is a base Verging on Asphaltic.

GAS ANALYSIS

Big Gas

Average analysis of a sample containing the combined gases from the big gas pay, the "Bowers Sand", and the "Brown Lime".

H_2S	Nil
CO_2	0.07%
O_2	0.07%
CH_4	56.00%
C_2H_6	21.00%
N_2	20.00%

White Lime Gas (San Andres)

	Sample I	Sample II
	Meter Station #13	Midwest
	Phillips Gas Plant	Byers #33

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

White Lime Gas (San Andres) Continued

	Sample I Midwest State #8 NW/4 Sec. 10, T-19-S, R-38-E	Sample II NE/4 Sec. 4 T-19-S, R38-E
H_2S	2.27%	1.05%
CO_2	4.00	5.25
O_2	1.06	0.81
CH_4	52.19	63.30
C_2H_6	7.16	3.34
Propane	13.31	9.09
Isobutane	2.49	1.32
Normal butane	6.99	5.29
Pentanes & Heavier	4.55	4.18
N_2	5.98	6.37
	100.00	100.00
Observed Gravity	1.050	0.933
Calculated Gravity	1.044	0.938

The above analysis if from gas produced with the oil from the white lime pay. These samples were collected in aluminum containers and were analyzed by H. W. Young, at the Midwest Refining Company's gas plant, Salt Creek, Wyoming.

If we can obtain any other information for you please let us know.

We thank you very much for your help in this matter.

Yours very truly,

OIL CONSERVATION COMMISSION

Eric F. Engbrecht
Oil & Gas Inspector

EFE/eb
cc- Proration Manager
District Engineer
File

VII. Establishment of a water well observation program to detect any new contamination and to observe the movement, if any, of contamination from the area northwest of Hobbs.

1. At least 42 wells, and probably more, are available for observation purposes in the Hobbs Pool area. The attached tabulation lists these wells according to their location and accessibility to water level measurements and to water sample collection.

2. As much information as possible should be collected regarding the potential observation wells. Such information should ideally include the driller's log, date drilled, depth, casing program, location of any perforations, accurate location of the well with reference to the land net and to relatively permanent landmarks, and an accurate description of the measuring point.

3. It is believed that an effective network of observation wells can be established by evaluating the potential observation wells with regard to their location within the Hobbs Pool area and to information available regarding their completion.

WATER WELLS IN THE HOBBS POOL AREA WHICH COULD BE UTILIZED FOR OBSERVATION PURPOSES

Well Location	Accessibility of Well For Measurement Of Water Level	Accessibility of Well For Collection of Water Sample From Tap or Discharge Pipe	Accessibility of Well For Collection of Water Sample By Thief or Trip Sampler	Present Use	Remarks
NE SW 13-18-37	X		X	Abandoned	Sampled 8/14/57
NW SW SE 13-18-37	X	X		Stock	Windmill
NW SE SE 23-18-37	X		X	Abandoned	Sampled 8/14/57
SE SE SE 24-18-37		X		Domestic	Windmill
SW NE SE 17-18-38	?	?	?		Not checked
SE SE SW 18	?	?	?		Not checked
SW SW SW 19	X		X	Abandoned	
NE NW NW 20		X		Irrigation	Sampled 8/13/57
SE/4 21	?	?	?		Many wells. Not checked.
NW NW 27	?	?	?	Standby	City Well #13
SW SW SE 27	?	?		Municipal	City Well
N/2 28	?	?	?		Many wells. Not checked.
NW SW NE 29	X		X	Abandoned	Contained oil 8/14/57
SW NE SE 29	X		X	Abandoned	N' most of two wells
SW NE NW 30	X	X		Domestic	
NE/4 30	X	X	X	Dom., Irrig.	Many wells. Contaminated area.
NW NE SW 30	X		X	Abandoned	

WATER WELLS IN THE HOBBS POOL AREA WHICH COULD BE UTILIZED FOR OBSERVATION PURPOSES (Continued)

Well Location	Accessibility of Well: For Measurement Of Water Level	Accessibility of Well: For Collection of Water Sample: From Tap or Discharge Pipe	Accessibility of Well: For Collection of Water Sample: By Thief or Trip Sampler	Present Use	Remarks
SW NE SW 30-18-38	X		X	Abandoned	
SE SE SW 30	X	X		Domestic	Windmill
SW NE SE 30	?	X		Domestic	Three wells present. Sample from contaminated well.
NW NE SW 31	X		X		
NE SW SE 31	X	?			Not checked
NE NE NE 32	X		X	Abandoned	
NE SW NE 32	X		X	Abandoned	Plugged with timber
NE NE NE 32	X		X	Abandoned	Plugged with bull plug
S/2 32	?		?		Many wells. Not checked.
NW/4 33	?	?			Many wells. Not checked.
SW SE SW 33	X			Domestic	
NE SW SW 34	X		X	Domestic	
SW SW SW 34	X		X	Abandoned	
NW SE SW 34		X			
N/2 34	?	?			Many wells. Not checked.
S/2 3-19-38	?	?			Many wells. Not checked.
N/2 4	?	?			Many wells. Not checked.

WATER WELLS IN THE HOBBS POOL AREA WHICH COULD BE UTILIZED FOR OBSERVATION PURPOSES (Continued)

Well Location	Accessibility of Well			Present Use	Remarks
	For Measurement Of Water Level	For Collection of Water Sample			
		From Tap or Discharge Pipe	By Thief or Trip Sampler		
SW SW SW 4-19-38	X		X	Abandoned	
SE NE SE 4	?	X		Domestic	Sampled 8/12/57
N/2 5	X	X			Many wells. Not checked.
NE NE SE 6	X		X	Abandoned	Timber plug
SW NE NE 6	?	X		Stock	Windmill
NE/4 9-19-38	?	?			4 wells here. None checked
SW NE SE 10	?	X		Domestic	Windmill
SE SW SE 10	X		X	Abandoned	

Section II

Two structural maps were prepared to study several problems involved in the four local water contaminated areas within the Hobbs Pool.

The findings of this study are:

1. The structural map on the base of the caliche differs locally with the structural map contoured on the top of the red beds, but they are regionally similar.

2. A comparison of the contaminated water wells and their relationship with the structure of the base of the caliche shows that the water wells with oil are located in structural highs, while water wells with gas are located both in structural highs and lows.

3. The map on the top of the red beds shows that the four main areas of water contamination (both oil and gas) occupy the same structural positions for each particular area.

4. In preparing the maps from water well and oil well sample logs, it was noted that evidence existed in some local areas that more than one water zone could be present within the Ogallala sand. In the Ellison area (NE/4 of Section 30, Township 18 South, Range 38 East) that the top of the water sand is somewhat isolated from the remaining Ogallala sand. The fluid level in these water wells is almost a constant 25 feet, where as in the rest of the Hobbs Pool, the fluid level ranges from 18 to 65 feet.

5. Being that the top of the fluid level in the Ellison area is 25 feet, the structure of the base of the caliche could possibly effect the movement of water, oil, and gas, and confine movements to structural highs.

6. In the other three areas in which contamination exists the water level is generally low enough that the structure of both the caliche and Red Beds would have, little if any, influence on the local migration movements of fluids. The influence of fluid movements would be effected by lithology and general direction and dip of the Ogallala formation.

7. In structurally comparing the relationship between the large number of oil wells which have been repaired and other possible sources of fresh water contamination with the water wells which are contaminated, it is practically impossible to trace and pick the exact source or sources which have definitely contaminated the Ogallala sand.

8. There are numerous accessable water wells which lie in the path of migration from the contaminated water area which could be used for observation and test wells. Refer to brown circled water wells on the maps.

9. (a) A total of 378 water wells were recorded.
(b) 31 water wells were contaminated.
(c) 12 water wells contained oil.
(d) 18 water wells contained gas.
(e) 1 water well contained organic material.

OIL CONSERVATION COMMISSION

HOBBS, NEW MEXICO

Item 10: Methods of determining the existence of defective casing in oil and gas wells.

Study Committee on Item 10 was composed of the Oil Conservation Commission and Pan American Petroleum Corporation.

Mr. Bill Mack with Pan American Petroleum Corporation
Mr. E. J. Fischer with the Oil Conservation Commission

It was decided that to the best of our knowledge the below listed methods may be employed in determining the possible existence of defective (leaking) casing.

1. Packer pressure test utilizing the bridge plug and retrievable packer method to test casing to locate leaks.

2. Bradenhead Pressure Tests

3. Temperature Survey- Another technique used to attempt to verify and locate leak(s).

4. Changes in wells productivity as a clue to possible existence of a leak in the well. Such as increase in water production, marked variation in GOR, marked variation in production, changes in fluid level as another clue, water analysis (to compare with formation water to see if formation water or leak water).

5. Caliper Survey

6. Electric Log- Possibly to locate complete break in pipe.

7. Contamination of fresh water well as an indication of defective casing in a nearby oil or gas well.

Most of the above listed items may be primary clues to the existence of defective casing to the extent of leaks. Items 2, 3, 4, 5, 6, and 7, are not in themselves conclusive evidence of leaking casing in a well. The only conclusive test is the one mentioned in Item 1.

OIL CONSERVATION COMMISSION
HOBBS, NEW MEXICO

Paragraph 11

Programming of bradenhead pressure tests on oil and gas wells in the Hobbs Pool area:

Findings:

1. A minimum of 4 surveys per year, to be held in the following months; January, April, July & October.

   a. Three of these surveys should be the direct responsibility of each operator for his own wells.

   b. One of the surveys should be witnessed by an Oil Conservation Commission representative.

      1. A schedule should be set up, beginning in April of each year by the Commission, for the witnessed test, to be assisted by a Company representative or representatives.
      2. All wells should be allowed approximately 15 minutes per well for the witnessed test, and be shut in 24 hours before testing.
      3. There are approximately 304 producing wells in the Hobbs area, which will take 76 field hours for a witnessed test, which will consume about five weeks.
      4. All wells should have risers, with working valves for safety's sake, for making these tests.
      5. Risers should be so constructed, that blow-downs can be made safely, without hazard to personal or adjacent property.
      6. Operator should furnish gauges of adequate pressure ranges, so all pressures may be safely observed and recorded.

2. Operators should record pressures, and other data of all surveys, and these shall become a permanent part of the operators' well records, for inspection at any date.

3. All producing wells should be tested.

4. All shut-in wells should be tested.

5. All temporary abandoned wells should be tested.

6. All plugged and abandoned wells should be observed.

7. All salt water disposal wells should be tested.

TABLE NO. 2

Analysis of Water in Parts per Million from Water Wells in Hobbs Pool Area

NAME	LOCATION	DATE	Na	Ca	Mg	SO_4	Cl	CO_3	HCO_3
Pan American	NE SW NW 33-18-38	9-1950	35	74	18	77	50	0	226
		7-1951	54	57	16	82	53	0	202
		7-1952	32	80	21	82	57	0	232
		8-1957	9	103	21	89	60	12	201
Pan American	SE NE SE 4-19-38	9-1950	51.	123	25	56	181	0	256
		7-1951	45	128	29	53	195	0	256
		7-1952	56	137	27	30	227	0	268
		8-1953	32	139	25	72	163	0	262
		6-1956	63	80	12	63	78	0	256
Pan American	NW NE NE 9-19-38	10-1950	67	89	18	109	82	0	262
		7-1951	52	79	21	93	67	0	250
		7-1952	52	86	21	96	71	0	262
		8-1953	31	124	19	114	85	12	238
		8-1955	58	80	17	103	78	0	218
		5-1956	66	86	17	113	71	0	256
Humble Federal Bowers No. 3		7-1957		190	46	22	66		
Sun Oil Co. McKinley No. 1	NE NE 5-19-38	11-1953	56	95	15	80	120	0	205
McKinley No. 2	NE NE 5-19-38	11-1953	47	81	14	98	53	0	227
Gulf Oil Corp. West Grimes		9-1952	36	70	7	48	31	0	229
		7-1953	50	59	7	44	33	0	235
		7-1954	50	62	5	45	32	0	235
		7-1955	46	65	6	45	31	0	238
		7-1956	65	96	19	119	92	0	250
East Grimes		7-1953	78	93	12	130	82	0	244
		7-1954	60	92	12	102	74	0	244
		7-1955	53	94	14	99	74	0	244

The wells reported to be contaminated by oil are located as follows:

Name	Location	Degree of Contamination
Jackson	NE NW NW 20-18-38	See Footnote #2
Phillips	NE NW NW 4-19-38	Unknown
Pacific Pump	NW NE NE 5-19-38	Trace

4. One well is reported to be contaminated by sewage. It is located as follows:

Name	Location
Phillips #6	SE NE NW 4-19-38

5. Forty-two wells were sampled with a chloride and sulfide analysis made. Among these 42 water wells are all wells that were found to be contaminated, the remainder being water wells near the reported contaminated wells. The sulfide determination did not indicate any contamination although many of the wells are known to be gas contaminated. See Table No. 1

6. In response to the Committee's request water analyses on 9 water wells were received from oil operators that operate water wells in the Hobbs Pool area. These analyses are included as Table No. 2

Footnote (1) The Amerada well in which 19.4 feet of oil was found has been pumped off. As of this date no new oil has entered the well bore. Due to the facts this Committee obtained it is probable that the oil entered the well bore from the surface and not from the fresh water aquifer.

Footnote (2) The Jackson well is reported to have oil; however it is the opinion of this Committee that it is lubricating oil from the water well pump.

II. Apparent contaminated conditions which exist in the Ogallala formation in the Hobbs Pool area

1. A total of 378 water wells were located in the area. It is believed that this represents about 80 % of the total number of water wells in the Hobbs Pool area

2. Field examination by Committee members discovered 18 water wells suspected to be contaminated. This contamination is in varying degrees, from gas contamination sufficient enough to burn with a small intermittent flame to a slight taste. The wells are as follows:

Name	Location	Degree of Contamination
Gibbins	SW SE NE 4-19-38	Slight Taste Gas
Easton	SW SE NE 4-19-38	Slight Taste Gas
Gackle	SE SE NE 4-19-38	Strong Taste Gas
Security Supply	NW NE NE 5-19-38	Slight Taste Gas
Ohio Oil	SE SE SE 32-18-38	Strong Taste Gas
Baker Tool	SW SE SW 32-18-38	Slight Taste Gas
Harwell	NW NE NE 28-18-38	Strong Taste Gas
Dowell	NE NE NE 28-18-38	Will Burn
Humble Oil	SW NE SW 30-18-38	Moderate Taste Gas
Bensing	NE NW NE 30-18-38	Very Slight Taste Gas
Green	NE NE NE 30-18-38	Very Strong Taste Gas
Mertaugh	NW NE NE 30-18-38	Old Well Would Burn
Moon	NW NE NE 30-18-38	Moderate Taste Gas
Moon	SW NE NE 30-18-38	Moderate Taste Gas
Goins	NE SE NE 30-18-38	Strong Taste Gas
Ellison L-2230	SW SE NE 30-18-38	Moderate Taste Gas
Pacific Pump	NW NE NE 5-19-38	Slight Taste Gas

One of the above water wells (Ohio) is reported to have been contaminated with gas since 1930.

The greatest degree of contamination was found in the Dowell (NE NE NE 28-18-38) water well. This well proved to be contaminated to such an extent that small sporadic flames of gas were observed when a lighted match was held over an opened water faucet.

3. Of the 378 known water wells, 9 are known to be contaminated by oil and 3 are reported to be contaminated oil. The wells known to be contaminated by oil are as follows:

Name	Location	Degree of Contamination
Amerada Pet.	C N/2 29-18-38	19.4 feet (See Footnote #1)
Ellison L-2230 #1	SW NE NE 30-18-38	6.3 feet
" #2	SE NW NE 30-18-38	0.5 feet
" #3	SE SW NE 30-18-38	0.5 feet
" #4	SE SW NE 30-18-38	0.8 feet
" #5	NE SW NE 30-18-38	0.6 feet
" #11	SE NW NE 30-18-38	Trace Oil
" #12	SE SW NE 30-18-38	2.4 feet
" #13	SE SW NE 30-18-38	3.8 feet

HOBBS POOL OPERATORS
August 25, 1953

ATTENDANCE RECORD

NAME-	COMPANY	ADDRESS
Rex C. Cabaniss	Shell Oil Company	Hobbs, New Mexico
Paul D. Sweitzer	The Texas Company	Monument, New Mexico
L. C. Hudry	Atlantic Refining Company	Denver City, Texas
J. S. Hutchins	" " "	" " "
R. W. Yarbrough	Union Oil Company of Calif.	Hobbs, New Mexico
L. B. Curtis	Continental Oil Company	" " "
Bill Kearley	Ohio Oil Company	" " "
E. Van Vranken	" " "	" " "
John A. Disch	Sinclair Oil and Gas Company	" " "
C. J. Merryman	Sun Oil Company	Odessa, Texas
D. C. Capps	Amerada Petroleum Corporation	Monument, New Mexico
W. G. Abbott	" " "	" " "
Paul S. Johnston	Texas-Pacific Coal and Oil Co.	Hobbs, New Mexico
C. C. Wilson	Continental Oil Company	" " "
R. S. Dewey	Humble Oil & Refining Company	Midland, Texas
K. C. Heald, Jr.	" " " "	Hobbs, New Mexico
M. M. Rogers	" " " "	" " "
Max E. Curry	Skelly Oil Company	" " "
Chas F. Dwyer, Jr.	Standard Oil Company of Texas	Royalty, Texas
W. B. Macey	Oil Conservation Commission	Santa Fe, New Mexico
George E. Trimble	Samedan Oil Corporation	Midland, Texas
S. J. Stanley	Oil Conservation Commission	Hobbs, New Mexico
H. A. DuPont	U. S. Geological Survey	" " "
H. E. Massey	Cities Service Oil Company	" " "
H. Lucchi	" " " "	" " "
E. E. Noble	Samedan Oil Corporation	Midland, Texas
Earl Woolwine	" " "	Hobbs, New Mexico
R. L. Hendrickson	Stanolind Oil and Gas Company	" " "

N. M. Oil and Gas Engineering Committee
Hobbs, New Mexico
8-26-53.

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR / LEASE - DATE COMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface	Intermediate	Production	Liner / Patch Liner / Full String	Date Leak Found	String and Depth of Leak	Repaired Date	Remarks
AMERADA PET. CO.										
State B Bowers	5-O	29-18-38	10" 220/200	7" 1665/300	5" 3136/300					
State B Sept 11'30 Hobbs	1-F	29-18-38	12" 210/200	9" 2740/400	7" 3997/500					
State B Sept 6 '30 Hobbs	2-G	29-18-38	12" 221/250	9" 2756/500	7" 3995/200		8/25/53	7" 1788/1810	12/22/53	
ATLANTIC RFG. CO.										
Grimes Hobbs	1-O	20-18-38	12" 232/200	9" 2790/500	6" 4037/300					
CITIES SERVICE OIL CO.										
Fowler May 14'30 Hobbs	1-A	31-18-38	12" 242/N.R.	9" 2744/N.R.	7" 3938/N.R.		9/22/53	7" 964/1894		
								2187/2211	10/29/53	
Fowler Apr 16'34 Hobbs	4-H	31-18-38	12" 242/100	9" 2760/300	7" 3955/150	5" New String 4190?/635	7/26/54	7 x 9 2700	8/16/54	
CONTINENTAL OIL CO. (Min Cost $1,900 Max Cost $15,000 Avg. $6,516)										
Grimes July 14'34 Hobbs	1-O	28-18-38	12" 222/180	9" 1637/300	7" 3975/400	5" Liner @ 3927/4277	9/23/53	7" 370?	11/21/53	
Grimes May 13'35 Hobbs	3-J	38-18-38	10" 245/150	7" 1635/300	5" 4015/300		7/7/54	5" 292/412	7/16/54	
State A-29 Hobbs	3-K	29-18-38	15" 252/1000	9" 2729/600	7" 3953/300		9/11/56		2/3/57?	
State A-29 Apr 16'47 Bowers	5-K	29-18-38	10" 380/200	7" 1573/425	5" 3197/450		8/29/56	7" x 5"	7/1/57	Leak in well head Tested 1500 p.s.i O.K.
State A-33 Sept 16'30 Hobbs	1-M	33-18-38	12" 209/165	9" 2738/500	7" 3976/275	No leak indicated in well file				
State A-33 Nov 12'31 Hobbs	4-J	33-18-38	15" 232/425	9" 2757/600	7" 3928/325	5" Liner 3871/4232	10/22053	7" 524 1116/1176	11/13/53	
State A-33 Mar 1'32 Hobbs	6--N	33-18-38	15" 223/387	9" 2754/600	7" 3971/350	5" 3911/4236	7/6/54	7" 259	7/26/54	
State A-33 Feb 1'33 Hobbs	7-G	33-18-38	15" 237/235	9" 2756/600	7" 3970/350	5" 4243/300	7/26/54	7" x 9" ?	12/3/54	
GETTY OIL CO. (Opr. by Tidewater) Min Cost $2,500 Max Cost $25,000.										
McKinley July 4'30 Hobbs	1-G	30-18-38	12" 245/200	9" 2758/600	7" 3856/250	5" 99jts. 4% gel. 405	9/10/53	7" 400/500	7/1/54	

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR LEASE - DATE COMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface	Intermediate	Production	Liner Patch Liner Full String	Leak Found	String and Depth of Leak	Repaired Date	Remarks
GETTY OIL CO. (Continued)										
McKinley July 15 '30 Hobbs	2-H	30-18-38	12" 251/200	9" 2756/600	7" 3858/250	5" 4202/450	6/3/54	7" 227/903	7/7/54	$35,000+
inley Aug 21 '30 Hobbs	4-B	30-18-38	12" 245/200	9" 2753/600	7" 3998/250		9/6/56	Could not get circulation	9/12/56	
McKinley May 29 '47 Bowers	6-G	30-18-38	11" 1474/400		5" 3160/200		9/4/56	Could not get circulation	9/14/56	
McKinley July 13 '47 Bowers	7-B	30-18-38	8" 1503/400		5" 3175/200		9/4/56		9/6/56	
GULF OIL CORP.										
Graham St. A Aug 10 '32 Hobbs	2-A	24-18-37	13" 229/300	9" 2790/600	7" 3975/250		12/7/55		1/10/56	
Grimes, W.D.BNov 1 '32 Hobbs	2-H	33-18-38	13" 221/175	9" 2761/500	6" 3959/250	5" Liner 3914/4169	4/17/56	7" ?	5/22/56	
Grimes, W.D. Aug 16 '34 Hobbs	3-B	33-18-38	13" 292/200	9" 2746/350	7" 3930/250	5" 4086/75	(7/2/46) (10/9/53)	5" 3589/3775 489/499	(7/10/46) (3/5/54)	
Grimes, W.D. Nov 16'34 Hobbs	4-A	33-18-38	13" 285/200	9" 2739/350	7" 3970/150	5" Liner 3919/4175	2/14/56		5/21/56	
Grimes, W.D.COct. 16'35 Hobbs	2-N	21-18-38	13" 281/225		7" 4109/1300	5" 250w/4% 0/4224	12/28/54	7" 425/1687	1/4/55	
rimes, W.D. A Apr. 18'30 Hobbs	1-D	32-18-38	15" 200	9" 3000	6" 4200		12/28/53	6" 1049/1080	4/12/54	
mes, W.D. A June 13'30 Hobbs	2-F	32-18-38	15" 200 N. A.	9" 3000 N.A.	6" 4200 N.A.		5/24/53	7" Sur. Nipple	7/4/53	Replaced Surface Connections
Grimes, W.D. Feb 16'31 Hobbs	7-C	32-18-38	13" 220 N.A.	9" 2750 N.A.	7" 3950 N.A.		6/21/54	7" above 1208	6/28/54	
Grimes, W.D. July 1'34 Hobbs	8-E	32-18-38	15" 238/200	9" 2757/350	7" 3954/200		4/2/54	7" 1725/1935	4/10/54	
Grimes, W.D. Sept 16'34 Hobbs	9-L	32-18-38	13" 212/200	9" 2740/350	7" 3966/150		10/8/53	7 x 9"	5/15/54	
HUMBLE OIL & RFG. CO.										
Fed. Bowers A Oct 1'30 Hobbs	8-O	30-18-38	12" 220/210	9" 2738/650	7" 3974/300		2/27/46	7" @ 60'	3/14/46	
" " " " "	8-O	30-18-38					9/ /47		10/10/47	
Fed. Bowers A Sept 1'30 Hobbs	5-I	30-18-38	12" 210/200	9" 2739/650	7" 3963/300	5" 3905	Aug.28'47	7" @ ?	9/15/47	

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR LEASE - DATE COMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface Cement	Intermediate	Production	Liner Patch Liner Full String	Leak Found	String and Depth of Leak	Repaired Date	Remarks
HUMBLE OIL & RFG. (Continued)										
Fed. Bowers A Aug 28'30 Hobbs	4-P	30-18-38	12" 204/200	9" 2750/650	7" 3960/300		10/2/47	7" @ ?	10/24/47	
Fed. Bowers A Aug 12'30 Hobbs	2-J	30-18-38	12" 242/225	9" 2750/650	7" 3960/300	5" 4208	8/7/47	7" @ ? Temp Anoms.		
" "	"	"					8/2/53	18' @216&@3676		
Fed. Bowers A Aug28'30 Hobbs	3-M	29-18-38	12" 203/200	9" 2736/650	7" 3960/300	5" 3940 circ	8/7/47	7" numerous holes	9/29/47	
MAGNOLIA PET. CO.										
Berry Nov 18'30 Hobbs	1-K	31-18-38	13" 245 N.A.	9" 2800 N.A.	7" 3955 N.A.	5" Liner 3847/4190	9/6/56		11/11/56	
OHIO OIL CO.										
State 30 Oct 3'30 Hobbs	3-L	30-18-38	12" 243/225	9" 2751/550	7" 3900/350		1/30/57		3/8/57	
State 32 Aug 14'30 Hobbs	3-I	32-18-38	12" 205/225	9" 2750/475	7" 3968/350	5" 4244/65sx	6/29/54	7" 266/1567/1200 & 1567	9/3/54	
State 32 Oct 5'30 Hobbs	5-O	32-18-38	16" 221/250	9" 2750/556	7" 3925/225	5" 4235	7/26/54	7" aprox. 1200	9/9/54	
PAN AMERICAN PET. CORP.										
Byers NE-4 Mar 1'33 Hobbs	26-H	4/19/38	16" 199/85	10" 1570/75	8" 3961/150	5" 4205/675	3/8/47	8" @ 3140	3/8/47	
Byers NE-4 Aug 13'30 Hobbs	33-G	4/19/38	16" 152/360	10" 1523/75	8" 3250/60	6" 3952/50	9/24/53	6" 1865	6/1/55	
"	"	"					3/8/55	7" @ 1500	3/7/55	
H.D.McKinley NW-5 Oct. 20'30 Hobbs	1-C	5-19-38	16" 162/55	10" 2749/300	6" 3920/150		6/18/57			
McKinley Oct 7'30 Hobbs	6-D	5-19-38	16" 185/75	10" 2782/350	6" 3977/150		9/10/53		3/17/54	
McKinley Dec 9'30 Hobbs	26-F	5-19-38	13" 212/150	9" 2780/300	6"3950/150		10/13/53?		12/2/54	
McKinley Jan 1'45 Hobbs	29-E	5-19-38	13" 210/200	9" 2780/500	7" 3999/300		10/17/53	7" 2095/2126	11/3/54	
State A "5" May 16'33 Hobbs	8-B	9-19-38	16" 217/100	10" 2810/450	7" 3993/100		6/20/57			

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR LEASE & DATE DOMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface	Intermediate	Production	Liner Patch Liner Full String	Leak Found	String and Depth of Leak	Repaired Date	Remarks
PAN AMERICAN PET. CORP (Cont)										
State A-7 Aug 16'30 Hobbs	G-D	10-19-38	16" 158/50	10" 1543/75	8" 4016/40		9/28/53	8" 0/227	11/2/54	
Terry 1 Sept 1'32 Hobbs	11-I	9-19-38	16" 196/100	10" 1593/75	8" 4031/150	DV 3874/450 5" 4196/100	9/28/53	8" 1224	11/2/54	
Terry 2 June 1'32 Hobbs	8-L	10/19/38	16" 204/125	10" 1597/75	8" 4034/150	5" 4175/100 DV 3839/450 8"	11/11/53	8" 1182/1160	10/17/54	
State B Sept 15'30 Hobbs	2-F	33-18-38	12" [illegible] 200	9" 2800	7" 4012	5" 4242/100	9/28/53	7"	4/7/54	
State A Tr 10 Dec 16'31 Hobbs	26-P	33-18-38	16" 209/125	10" 2752/400	8" 3946/140	5" 4220/300	8/26/46	"No leak found	9/12/46	
State A Tr 3 Nov 30'30 Hobbs	26-N	4-19-38	16" 193/50	10" 3275/650	8" 3983/100	5" 4190/[illegible]3	6/13/47	8" [illegible] 1043	7/14/47	Liner 3939/4190
State A Tr 1 Feb 16'32 Hobbs	11-C	4-19-38	16" 201/125	10" 2754/400	[illegible]" 3976/150	5" 4212/75	6/30/48	8" [illegible] 83[illegible]	9/24/48	Liner 3900/4212
B. H. Turner Tr 1 Sept 1'34 Hobbs	9-D	34-18-38	16" 223/90	10" 1646/350	7" 397[illegible]/150	5" 3872/50	2/17/48	7" 815/1180	3/4/48	Liner 3872/4221
SAMEDAN OIL CO.										
State B Oct 11'35 Hobbs	1-F	25-18-37	12" 205/175		7" 4039/500				5/12/54	No record in well file.
State C June 21'34 Hobbs	2-K	24-18-37	12" 212/150	9" 2823/200	7" 3983/150	5" 3917 4171/50	1/2/51	7" [illegible] 2163	1/[illegible]/51	
SHELL OIL COMPANY (Cost to add packers & Sweet Oil in annulus to Flowing wells in Hobbs Pool $30,000(1953 & 1946)										
Rice Sept 4,'32 Hobbs	1-P	13-18-37	12" 228/200	9" 2786/600	7" 3922/250		2/14/57	7" 1500 p.s.i for 30 min.NF.	5/27/57	
Rice Dec. 14'35 Hobbs	3-I	13-18-37	12" 264/200	9" 1591/600	7" 3960/160		8/4/54	7" above 400'	9/3/54	
State B June 12'34 Hobbs	2-C	33-18-38	12" 296/150	9" 2760/150	7" 3930/250	5" 3884/250	9/28/53	7" 526/557	11/16/53	

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR OPERATOR LEASE - DATE COMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface	Intermediate	Production	Liner Patch Liner Pull String	Leak Found	String and Depth of Leak	Repaired Date	Remarks
SHELL OIL CO. (Continued)										
State F Dec 10'41 Bowers	1-A	23-18-37	8⅝" 1592/525		4½" 4099/130		3/?/57	4½" 3300/2575	6/5/57	
Sanger Inv. Co. Jun 15'35 Hobbs	3-J	27-18-38	12¾" 257/155	9⅝" 1645/200	7" 4075/250		9/28/53	7" [illegible]300		
Sanger Inv. Co. Feb. 1'35 Hobbs	2-H	27-18-38	12¾" 233/700	9⅝" 1648/350	7" 4060/250				6/6/57	
SKELLY OIL CO.										
Fowler Hobbs	2-F	31-18-38	12¾" 208/300	9⅝" 2796/400	7" 3964/450	5½" 4211/325	12/5/55	No Leak 7"	12/11/55	
Fowler Hobbs	1-C	31-18-38	12¾" 266/185	9⅝" 2750/400	7" 3973/450	5½" 4215	8/28/53	7" No leak	5/26/54	
SOUTHERN PET. EXPL CO. INC.										
Morris A Mar 1'36 Hobbs	1-O	21-18-38	12¾" 252/200		7" 4066/468	5½" 0-572	4/23/57 7/ /57			
Morris B Nov 28 '37 Hobbs	1-P	21-18-38	10¾" 259/175		7" 4097/400	4½" 4072/400 45	7/10/56		7/20/56	
STANDARD OF TEXAS										
T/A State Sept 17'30 Bowers	2-O	29-18-38	13⅜" 242/150	9⅝" 2822/725	7" 3951/300		3/27/57		5/10/57	
SUN OIL COMPANY										
McKinley Aug 15'30 Hobbs	1-A	5-19-38	12¾" 192/190	9⅝" 2746/500	7" 3914/225	5½" 4100 NA.	3/26/54	7" ?	5/4/54	
McKinley Aug 13'30 Hobbs	2-H	5-19-38	12¾" 200 NA	9⅝" 2900 NA	7" 4000 NA	5½" 4168/50	9/28/53	7" 1226/1650	4/26/54	
McKinley Aug 19'30 Hobbs	3-B	5-19-38	12¾" 200 NA	9⅝" 2900 NA	7" 4000 NA	5½" 4175 NA	9/28/53	7" 1877/1882	4/2/54	
McKinley Oct 16'30 Hobbs	4-G	5-19-38	12¾" 2000NA	9⅝" 2900 NA	7" 4000 NA	5½" 4200/65	9/9/53	7" 77/3790	4/2/54	Bad Collars
SUNRAY MID-CONTINENT OIL CO.										
Fowler Nov 12'30 Hobbs	1-D	31-18-38	13⅜" 300	9⅝" 2750/600	7" 3950/425		9/30/53	7" 3100	10/21/53	

HOBBS AREA & RELATED POOLS

CASING LEAKS & LEAKS REPAIRED JULY 1957

OPERATOR LEASE - DATE COMP - POOL	WELL & UNIT	S-T-R	CASING PROGRAM (All fractions Dropped) Surface Cement	Intermediate	Production	Liner Patch Liner Full String	Leak Found	String and Depth of Leak	Repaired Date	Remarks
TEXAS PACIFIC COAL & OIL CO.										
State G July 2'30 Hobbs	1-P	24-18-37	20" 105/125	12" 1521/300	9" 2815/700	7" 3880/200	9/30/53	7" 2350	3/15/57	
State G Nov 7'30 Hobbs	3-J	24-18-37	12" 215/200	9" 2810/400	7" 3878/300		No Leak just remedial		7/9/56	
TIDEWATER OIL CO.										
Bome Hardin Nov 6'30 Hobbs	3-B	19-18-38	12" 217/200	9" 2750/600	7" 3952/300		12/18/42	7" x 9"	2/23/43	
Grimes Oct 4'30 Hobbs	3-I	29-18-38	15" 228/200	9" 2715/600	7" 3900/300	5" 3691 4233/120	10/18/46	7" 368/403	11/1/46	
Grimes (P&A) Sept 15'30 Bowers	2-H	29-18-38	15" 230/200	9" 2718/600	7" 3880/300	5" 3350/100	9/25/46	7" Bad Conditions	9/27/46	

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER

2. Name of Operator
WINDMILL OIL COMPANY

3. Address and Telephone No.
1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

5. Lease Designation and Serial No.
NMLC032233A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
GRIMES (see attached list)

9. API Well No.

10. Field and Pool, or Exploratory Area
HOBBS OGALLALA

11. County or Parish, State
LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct
Signed Dave Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)
Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000
Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER

2. Name of Operator
WINDMILL OIL COMPANY

3. Address and Telephone No.
1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

5. Lease Designation and Serial No.
NMLC032233A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
GRIMES (see attached list

9. API Well No.

10. Field and Pool, or Exploratory Area
HOBBS OGALLALA

11. County or Parish, State
LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct
Signed Dave Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)
Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000
Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER

2. Name of Operator
WINDMILL OIL COMPANY

3. Address and Telephone No.
1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

5. Lease Designation and Serial No.
NMLC032233A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
GRIMES (see attached list

9. API Well No.

10. Field and Pool, or Exploratory Area
HOBBS OGALLALA

11. County or Parish, State
LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct
Signed Tony Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)
Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000
Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER

2. Name of Operator
WINDMILL OIL COMPANY

3. Address and Telephone No.
1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

5. Lease Designation and Serial No.
NMLC032233A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
GRIMES (see attached list

9. API Well No.

10. Field and Pool, or Exploratory Area
HOBBS OGALLALA

11. County or Parish, State
LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct
Signed Doyle Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)
Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000
Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER

2. Name of Operator
WINDMILL OIL COMPANY

3. Address and Telephone No.
1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

5. Lease Designation and Serial No.
NMLC032233A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
GRIMES (see attached list)

9. API Well No.

10. Field and Pool, or Exploratory Area
HOBBS OGALLALA

11. County or Parish, State
LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore.
Liability under bond is retained until
surface restoration is completed.

14. I hereby certify that the foregoing is true and correct
Signed Doug Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)
Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000
Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

0-5
90)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: NMLC032233A
6. If Indian, Allottee or Tribe Name:
7. If Unit or CA, Agreement Designation:

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER
8. Well Name and No.: GRIMES (see attached list
2. Name of Operator: WINDMILL OIL COMPANY
9. API Well No.:
3. Address and Telephone No.: 1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727
10. Field and Pool, or Exploratory Area: HOBBS OGALLALA
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
11. County or Parish, State: LEA, NM

12. **CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct

Signed Doyle Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)

Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000

Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

.60-5
990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: NMLC032233A
6. If Indian, Allottee or Tribe Name:
7. If Unit or CA, Agreement Designation:

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER
8. Well Name and No.: GRIMES (see attached list)
2. Name of Operator: WINDMILL OIL COMPANY
9. API Well No.:
3. Address and Telephone No.: 1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727
10. Field and Pool, or Exploratory Area: HOBBS OGALLALA
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
11. County or Parish, State: LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct

Signed Doug Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)

Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000

Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER

2. Name of Operator
WINDMILL OIL COMPANY

3. Address and Telephone No.
1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

5. Lease Designation and Serial No.
NMLC032233A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
GRIMES (see attached list

9. API Well No.

10. Field and Pool, or Exploratory Area
HOBBS OGALLALA

11. County or Parish, State
LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore.
Liability under bond is retained until
surface restoration is completed.

14. I hereby certify that the foregoing is true and correct
Signed Doyle Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)
Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000
Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: NMLC032233A
6. If Indian, Allottee or Tribe Name:
7. If Unit or CA, Agreement Designation:

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER
8. Well Name and No.: GRIMES (see attached list
2. Name of Operator: WINDMILL OIL COMPANY
9. API Well No.:
3. Address and Telephone No.: 1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727
10. Field and Pool, or Exploratory Area: HOBBS OGALLALA
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
11. County or Parish, State: LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct

Signed Bary Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)

Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000

Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: NMLC032233A

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA, Agreement Designation:

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER

8. Well Name and No.: GRIMES (see attached list)

2. Name of Operator: WINDMILL OIL COMPANY

9. API Well No.:

3. Address and Telephone No.: 1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727

10. Field and Pool, or Exploratory Area: HOBBS OGALLALA

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

11. County or Parish, State: LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct

Signed Gary Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)

Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000

Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: NMLC032233A
6. If Indian, Allottee or Tribe Name:
7. If Unit or CA, Agreement Designation:

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER
8. Well Name and No.: GRIMES (see attached list)
2. Name of Operator: WINDMILL OIL COMPANY
9. API Well No.:
3. Address and Telephone No.: 1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727
10. Field and Pool, or Exploratory Area: HOBBS OGALLALA
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
11. County or Parish, State: LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct

Signed Boyce Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)

Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000

Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER

2. Name of Operator
WINDMILL OIL COMPANY

3. Address and Telephone No.
1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

5. Lease Designation and Serial No.
NMLC032233A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
GRIMES (see attached list

9. API Well No.

10. Field and Pool, or Exploratory Area
HOBBS OGALLALA

11. County or Parish, State
LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct
Signed Doug Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)
Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000
Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other OIL WELLS IN OGALLALA AQUIFER

2. Name of Operator
WINDMILL OIL COMPANY

3. Address and Telephone No.
1008 W. BROADWAY, HOBBS, NM 88240 505/393-2727

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

5. Lease Designation and Serial No.
NMLC032233A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
GRIMES (see attached list)

9. API Well No.

10. Field and Pool, or Exploratory Area
HOBBS OGALLALA

11. County or Parish, State
LEA, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☒ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

P&A'D 04/01/2000

Pulled approx. 10' csg from ea. well & filled hole to surface - shallow wells not more than 55' deep.

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

14. I hereby certify that the foregoing is true and correct
Signed Jay Heard Title Agent Date 05/31/2000

(This space for Federal or State office use)
Approved by (ORIG. SGD.) DAVID R. GLASS Title PETROLEUM ENGINEER Date JUN 01 2000
Conditions of approval, if any:

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Windmill Oil Company
Attachment to Sundry Notice
Grimes P & A
All in Section 30, Township 18 South, Range 38 East
Lea County, New Mexico

Grimes #2
#3
#8
#11
#12
#14
#21
#26
#30
#33
#35
#36
#39

Lawyer Displays Samples Showing Pollution by Oil

OILY PROBLEM — The threat of oil in water supplies, brought up in a city commission meeting last night, here is illustrated by attorney J. O. Walton. The attorney displays a bottle, apparently containing a heavy concentration of oil that was found in a water well northwest of the city. News-Sun photo by Jim Rawls.

By VIC JAMESON

Fear that leakage from oilwells may be penetrating this area's water-bearing sands and threatening Hobbs' $2 million water system last night prompted city officials to seek state corrective action.

City commissioners agreed to apply to the Oil Conservation Commission for a hearing on the case. Their decision came after the presentation of evidence by attorneys W. D. Girand and J. O. Walton, indicating that some private wells already contain a heavy concentration of oil.

The problem was brought up by Girand, who appeared before the commissioners in an otherwise routine mid-month meeting. Cited in his discussion was an area about a mile and one-half west of Turner where it intersects with Bender Blvd., on property owned by W. H. Ellison.

A number of tests were made there, around an oilwell that several years ago was fouhd to have a leaky casing, Girand said. Thirteen water wells were drilled around the oilwell, and those south and east of the oil installation were found to have oil in their waters, he added.

Girand displayed two bottles of fluid which, he explained, came from 30- and 35-foot wells in the area concerned. Both contained liquid that appeared to be nearly completely oil.

The oil apparently is that which leaked from wells in the past, before casing leaks were discovered and corrected several years ago, Girand said.

"The leaking wells have been sealed off now," he explained,

(Continued on Page 5)

tute their personal notions for the law of the land.

Lawyer Displays - - -

(Continued from Page 1)

"but we have no way of knowing how much oil polluted the water sands before they were corrected."

Oil that leaks into water-bearing sands could "migrate" into central areas and eventually be pulled into the city's watef system, the officials theorized. This, they said, could foul the entire system which now represents an investment of about $2 million.

Further evidence in the situation was presented by Walton, who said oil in a water supply has "ruined three lawns" for G. W. Goins, who lives in the same area.

City Attorney Donald Hallam was instructed to seek a hearing or other appropriate action from the OCC in the case.

Routine business took up the remainder of the meeting. The commission:

Approved payment of $12,186.65 in regular bills and $23,739.22 in water department bills;

Okayed refunds totaling $101.26, for overcharges in paving projects;

Discussed methods of payment for occupational taxes;

Heard a report from Commissioner Walter Linam on improper drainage at the south end of South Third Street, and was told that this and similar faults will be corrected after the completion of surveys now under way;

Approved a resolution asking approval from the state board of finance for the purchase of three adding machines;

Okayed a bid by Lembke, Clough and King Construction Co., for building foundations for an elevated water tank at a cost of $11,500;

Agreed on a price of $3,500 for a city audit, by Darwin Sprouse, subject to approval of the state comptroller;

And asked Hallam for an opinion on the legality of a move asked by the library board. The board had asked that Mrs. Letha Mae Atkins, acting librarian, be moved into a part-time job while she completes nine months of college training to qualify as a full-time librarian. Mrs. Atkins would receive $150 a month for extensive record-keeping work while taking the college courses.

The short and efficiently-conducted meeting closed at 9:30.

Hobbs Daily News Sun, July 1957

Water Pollution Problem Referred to Committee

Oilmen and city and state officials will meet in committee sessions in an effort to whip the long-standing threat of water contamination in the Hobbs area.

Five oil producers and two agencies yesterday were appointed to make a special study of the pollution problem, after a lengthy hearing called by the Oil Conservation Commission. OCC Secretary-Director A. L. (Pete) Porter named Pan American, Samedan, Shell, Tidewater and Continental as industry representatives for the study, with the city water board and the state engineers office also to serve in the project.

Selection of the committee came after a morning tour and an afternoon discussion session had failed to turn up suggested solutions for the contamination of water wells by oil.

Two jabs at newspapers for their publicising of the situation and a disagreement between representatives of two city agencies were other high spots of the hearing.

The meeting had been called at the request of the city commission. In a June 17 sessioin, the commission heard reports of oil pollution in water wells northwest of Hobbs, and commissioners at that time expressed apprehension that the oil might work its way int othe $2 million city system.

About 90 persons, representing the oil industry and city and state agencies, started the field trip that led off yesterday's hearing. The trip, designed to show delegates several possible sources of contamination, took up most of the morning.

But it was the afternoon session, moved to the high school little theater, that produced the brief flurries of criticism and conflict. A summary of the morning tour and of the overall pollution picture had just ended when Lloyd Calhoun, member of the city water board, took the floor.

The nearest major city well is about two miles from an area of contamination, he said, adding that "we do not feel the Hobbs water system is in jeopardy — speaking of the Hobbs city system only."

He deplored the "premature publicity" given the problem by newspapers, then struck a spark by suggesting that the city withdraw from consideration of the problem and leave settlement of it to industry and state officials.

Asked later by Porter if Calhoun's statement changed the position of the city in the case, City Attorney Donald Hallam said "the city's position remains the same . . ."

Porter also chided newspapers, saying that "I have had an awful time with the newspaper reporters convincing them that the city of Hobbs water supply was not contaminated. They seem to be hung on that.

"We feel we did take prompt action, as did the operators, in cutting off sources of contamination as rapidly as they were discovered," Porter continued. But, he added of the hearing itself, "I did not hear any solutions" to the present contamination problem.

"I hope to hear some solutions. Frankly, I don't have one."

After a short recess, Porter announced the decision to tackle the issue through committee work:

"The commission has decided to appoint a committee to study means of preventing further contamination, beyond the methods now in use, and to explore any possibility of correcting the contamination we now have."

He said the Hobbs OCC office will work with the committee, and asked that a progress report be submitted in 30 days.

On the morning tour, the oilmen and officials visited several sites and possible causes of contamination.

First stop was at the Dowell, Inc., plant in the north section of Hobbs, where water used by Dowell appeared to contain gas. A lighted match over the water brought spurts of flame in a demonstration.

City well No. 13 is about 2,000 feet from the site, and also near by is a dump ground where waste oil materials and acid have been placed.

The OCC recommended on June 19, members of that body said later, that city well No. 13 be shut in.

Most interest on the tour was centered at the O. H. Ellison farm northwest of Hobbs. There, evidence of oil in a water well was presented by OCC engineer Harry Engbrecht who said that one well on Ellison's property contained 12.8 feet of liquid including 6.3 feet of 34 gravity crude oil.

Several other water wells drilled by Ellison contained varying amounts of oil, it was pointed out. Within a half-mile radius of the Ellison property, Engbrecht continued, there have been eight well repair jobs; and within a two-mile radius, 38 wells have been repaired.

An open waste oil pit heavy with oil, and a large area of water where gas bubbles have been noted, also were viewed.

"The main reason for this tour is to show that there are other things causing contamination of the fresh water besides leaks in oil wells," OCC district engineer E. J. Fischer wrote in an explanation of the tour. "The degree to which they contaminate the fresh water is of course, impossible to determine."

The hearing was marked by cooperation and pladges of continued working together on the part of operators and agencies concerned. Representatives for the producing companies made reports of past efforts to control contamination and said their firms will do anything possible in the future

Ike's Mind 'Open'

CALCULATED EVAPORATION OF SALINE WATER FROM SEALED PITS IN THE VICINITY OF HOBBS, NEW MEXICO

(Calculations for the period October 1940 to December 1942, inclusive, for different surface areas per barrel of saline water placed in pits per month)

Prepared by

D. E. Gray and P. D. Akin

STATE ENGINEER OFFICE
SANTA FE, NEW MEXICO
SEPTEMBER 1958

ESTIMATE OF NET EVAPORATION OF SALINE WATER FROM PITS NEAR HOBBS, NEW MEXICO

(1) Year	(2) Month	(3) Pan evap. Portales (inches)	(4) Estimated pan evap. Hobbs (inches)	(5) Estimated gross evap. -- saline water from pits near Hobbs (inches)	(6) Precip. Hobbs (inches)	(7) Estimated net evap. -- saline water from pit near Hobbs (inches)	(7) (feet)
1940	Jan.	1.425	1.54	0.92	0.05	0.87	0.072
	Feb.	4.365	4.73	2.84	0.56	2.28	0.190
	Mar.	8.484	9.20	5.52	0.25	5.27	0.439
	Apr.	9.161	9.93	5.96	1.25	4.71	0.392
	May	9.945	10.78	6.47	0.63	5.84	0.486
	June	11.518	12.48	7.49	4.10	3.39	0.282
	July	14.775	16.02	9.61	0.55	9.06	0.755
	Aug.	8.919	9.67	5.80	2.80	3.00	0.250
	Sept.	10.248	11.11	6.67	-	6.67	0.555
	Oct.	6.957	7.54	4.52	3.45	1.07	0.089
	Nov.	4.792	5.19	3.11	1.09	2.02	0.168
	Dec.	2.810	3.05	1.83	0.33	1.50	0.125
	TOTAL:	93.399	101.24	60.74	15.06	45.68	3.803
1941	Jan.	2.389	2.59	1.55	0.22	1.33	0.111
	Feb.	3.200	3.47	2.08	0.84	1.24	0.103
	Mar.	5.832	6.32	3.79	2.88	0.91	0.076
	Apr.	8.735	9.47	5.68	0.69	4.99	0.416
	May	9.969	10.81	6.49	9.19	-2.70	-0.225
	June	9.875	10.70	6.42	3.03	3.39	0.283
	July	9.794	10.62	6.37	2.32	4.05	0.338
	Aug.	8.338	9.04	5.42	1.19	4.23	0.352
	Sept.	6.443	6.98	4.19	6.72	-2.53	-0.211
	Oct.	5.191	5.63	3.38	4.66	-1.28	-0.107
	Nov.	3.452	3.74	2.24	0.08	2.16	0.180
	Dec.	2.805	3.04	1.82	0.37	1.45	0.121
	TOTAL:	76.023	82.41	49.43	32.19	17.24	1.437
1942	Jan.	2.676*	2.53**	1.52	0.16	1.36	0.113
	Feb.	4.943*	4.68**	2.81	-	2.81	0.235
	Mar.	8.854	9.60	5.76	0.50	5.26	0.438
	Apr.	7.752	8.40	5.04	1.71	3.33	0.278
	May	12.100	13.12	7.87	1.47	6.40	0.534
	June	12.726	13.79	8.27	1.51	6.76	0.564
	July	11.826	12.82	7.69	1.10	6.59	0.550
	Aug.	10.458	11.34	6.80	2.89	3.91	0.326
	Sept.	6.462	7.00	4.20	0.67	3.53	0.294
	Oct.	5.298	5.74	3.44	0.86	2.58	0.215
	Nov.	4.735	5.13	3.08	0	3.08	0.257
	Dec.	2.876	3.12	1.87	1.88	-0.01	-0.001
	TOTAL:	90.706	97.27	58.35	12.75	45.60	3.803

NOTES

Col.3-Taken from State Tech.Rept.#5, page #266. Values are minimum recorded for period of record 1934-1954.

Col.4-Taken from Fig. 7, p.54 "Tentative Plan for Develop. of land & water Resources-NM Portion-AWR Portales-4000' elev. gave 67". Hobbs-3600' elev.gave 72.6" - Ratio $\frac{72.6}{67}$ = 1.0

Col.5- 0.60-Conversion factor from pan evap. to surface water evap. for saline water. See p.39 "Possible Improvement of Quality of Water of the Pecos River by Diversion of Brine at Malaga Bend, Eddy Cty, NM," USGS-Dec. 1954.

Col.6-Page 187-State Engr. Tech. Rept.#6-Mean Monthly values for period of record 1913-1954.

Col.7-Equals Column #5 minus Column #6.

* Portales evaporation record not available for these months. Figures are pan evaporation from Lake McMillan station.

** See note Col. 4.

Evaporation at Lake McMillan (3280' elevation) = 76.7"

Evaporation at Hobbs (3600' elevation) = 72.6"

$$\text{Ratio} = \frac{72.6}{76.7} = 0.946$$

ESTIMATED ACCUMULATED DEPTH OF SALINE WATER IN SEALED PITS NEAR HOBBS

BY MONTHS FROM OCTOBER 1940 TO DECEMBER 1942, INCLUSIVE

(Surface area 25 square feet per barrel of saline water per month)

(1) Year	(2) Month	(3) Depth of saline water placed in pits (feet)	(4) Estimated net evap. saline water from pits near Hobbs (ft	(5) Difference Col.3 minus Col.4 (feet)	(6) Accumulated depth of water in pits (feet)
1940	Oct.	.224	.089	.135	.135
1940	Nov.	.224	.168	.056	.191
1940	Dec.	.224	.125	.099	.290
1941	Jan.	.224	.111	.113	.403
1941	Feb.	.224	.103	.121	.524
1941	Mar.	.224	.076	.148	.672
1941	Apr.	.224	.416	-.192	.480
1941	May	.224	-.225	.449	.929
1941	June	.224	.283	-.059	.870
1941	July	.224	.338	-.114	.756
1941	Aug.	.224	.352	-.128	.628
1941	Sept.	.224	-.211	.435	1.063
1941	Oct.	.224	-.107	.331	1.394
1941	Nov.	.224	.180	.044	1.438
1941	Dec.	.224	.121	.103	1.541
1942	Jan.	.224	.113	.111	1.652
1942	Feb.	.224	.235	-.011	1.641
1942	Mar.	.224	.438	-.214	1.427
1942	Apr.	.224	.278	-.054	1.373
1942	May	.224	.534	-.310	1.063
1942	June	.224	.564	-.340	.723
1942	July	.224	.550	-.326	.397
1942	Aug.	.224	.326	-.102	.295
1942	Sept.	.224	.294	-.070	.225
1942	Oct.	.224	.215	.009	.234
1942	Nov.	.224	.257	-.033	.201
1942	Dec.	.224	-.001	+.225	.426

Col. 3 - One barrel = 42 gallons = 5.615 cubic feet.
Depth of water = $\frac{5.615}{25}$ = 0.224 feet.

Col. 4 - From Col. 7, page 1.

ESTIMATED ACCUMULATED DEPTH OF SALINE WATER IN SEALED PITS NEAR HOBBS

BY MONTHS FROM OCTOBER 1940 TO DECEMBER 1942, INCLUSIVE

(Surface area 30 square feet per barrel of saline water per month)

(1) Year	(2) Month	(3) Depth of saline water placed in pits (feet)	(4) Estimated net evap. saline water from pits near Hobbs (ft.)	(5) Difference Col. 3 minus Col. 4 (feet)	(6) Accumulated depth of water in pits (feet)
1940	Oct.	.187	.089	.098	.098
1940	Nov.	.187	.168	.019	.117
1940	Dec.	.187	.125	.062	.179
1941	Jan.	.187	.111	.076	.255
1941	Feb.	.187	.103	.084	.339
1941	Mar.	.187	.076	.111	.450
1941	Apr.	.187	.416	-.229	.221
1941	May	.187	-.225	.412	.633
1941	June	.187	.283	-.096	.537
1941	July	.187	.338	-.151	.386
1941	Aug.	.187	.352	-.165	.221
1941	Sept.	.187	-.211	.398	.619
1941	Oct.	.187	-.107	.294	.913
1941	Nov.	.187	.180	.007	.920
1941	Dec.	.187	.121	.066	.986
1942	Jan.	.187	.113	.074	1.060
1942	Feb.	.187	.235	-.048	1.012
1942	Mar.	.187	.438	-.251	.761
1942	Apr.	.187	.278	-.091	.670
1942	May	.187	.534	-.347	.323
1942	June	.187	.564	-.377	0
1942	July	.187	.550	-.363	0
1942	Aug.	.187	.326	-.139	0
1942	Sept.	.187	.294	-.107	0
1942	Oct.	.187	.215	-.028	0
1942	Nov.	.187	.257	-.070	0
1942	Dec.	.187	-.001	-.188	.188

Col. 3 - One barrel = 42 gallons = 5.615 cubic feet.
Depth of water = $\frac{5.615}{30}$ = 0.187 feet

Col. 4 - From Col. 7, page 1.

ESTIMATED ACCUMULATED DEPTH OF SALINE WATER IN SEALED PITS NEAR HOBBS

BY MONTHS FROM OCTOBER 1940 TO DECEMBER 1942, INCLUSIVE

(Surface area 40 square feet per barrel of saline water per month)

(1) Year	(2) Month	(3) Depth of saline water placed in pits (feet)	(4) Estimated net evap: saline water from pits near Hobbs (ft	(5) Difference Col.3 minus Col.4 (feet)	(6) Accumulated depth of water in pits (feet)
1940	Oct.	.140	.089	.051	.051
1940	Nov.	.140	.168	-.028	.023
1940	Dec.	.140	.125	.015	.038
1941	Jan.	.140	.111	.029	.067
1941	Feb.	.140	.103	.037	.104
1941	Mar.	.140	.076	.064	.168
1941	Apr.	.140	.416	-.276	0
1941	May	.140	-.225	.365	.365
1941	June	.140	.283	-.143	.222
1941	July	.140	.338	-.198	.024
1941	Aug.	.140	.352	-.212	0
1941	Sept.	.140	-.211	.351	.351
1941	Oct.	.140	-.107	.247	.598
1941	Nov.	.140	.180	-.040	.558
1941	Dec.	.140	.121	.019	.577
1942	Jan.	.140	.113	.027	.604
1942	Feb.	.140	.235	-.095	.509
1942	Mar.	.140	.438	-.298	.211
1942	Apr.	.140	.278	-.138	.073
1942	May	.140	.534	-.394	0
1942	June	.140	.564	-.424	0
1942	July	.140	.550	-.410	0
1942	Aug.	.140	.326	-.186	0
1942	Sept.	.140	.294	-.154	0
1942	Oct.	.140	.215	-.075	0
1942	Nov.	.140	.257	-.117	0
1942	Dec.	.140	-.001	.141	.141

Col. 3 - One barrel = 42 gallons = 5.615 cubic feet.

Depth of water = $\frac{5.615}{40}$ = 0.140 feet.

Col. 4 - From Col. 7, page 1.

ESTIMATED ACCUMULATED DEPTH OF SALINE WATER IN SEALED PITS NEAR HOBBS

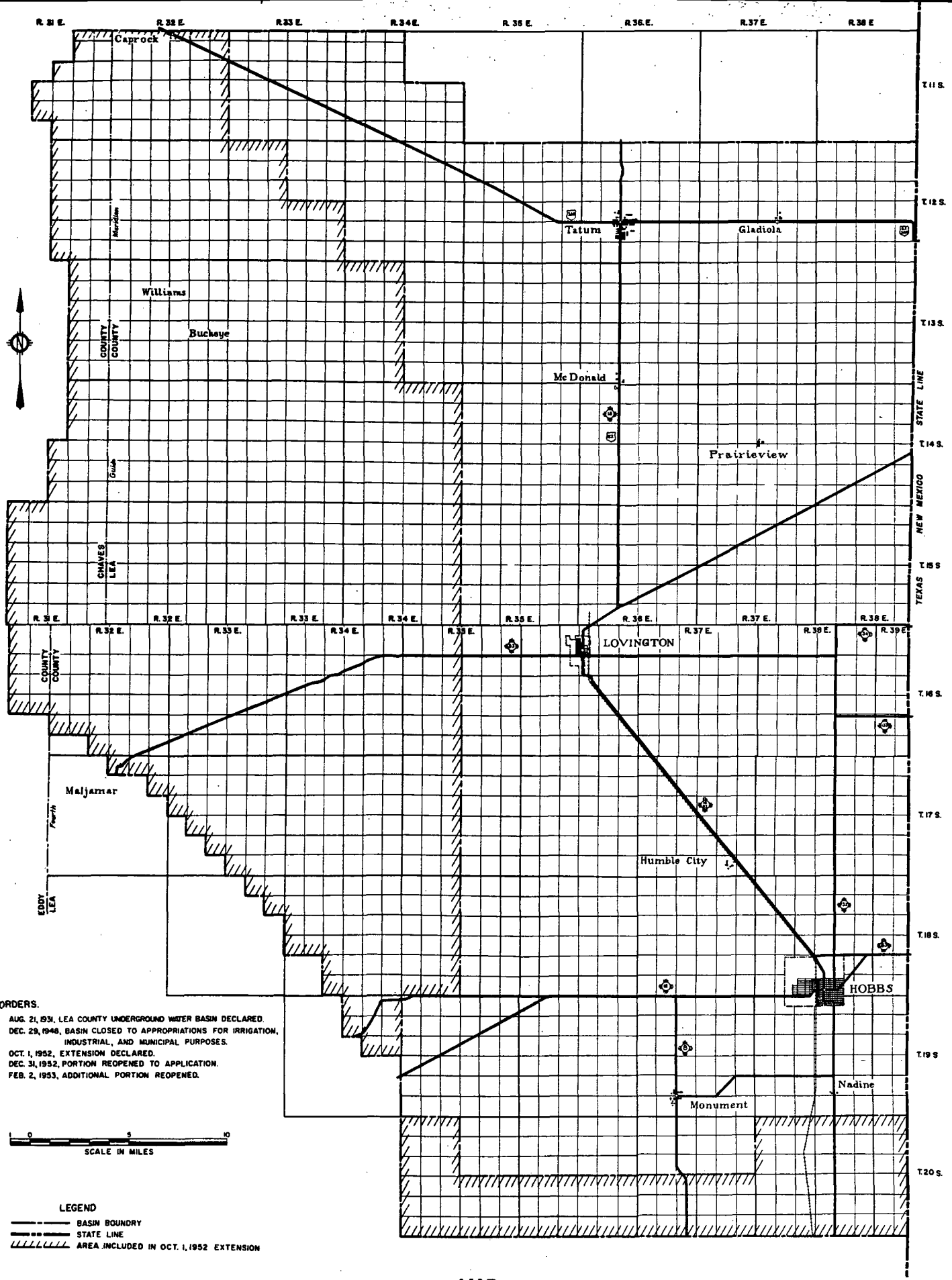
BY MONTHS FROM OCTOBER 1940 TO DECEMBER 1942, INCLUSIVE

(Surface area 50 square feet per barrel of saline water per month)

(1) Year	(2) Month	(3) Depth of saline water placed in pits (feet)	(4) Estimated net evap: saline water from pits near Hobbs (ft	(5) Difference: Col.3 minus Col.4 (feet)	(6) Accumulated depth of water in pits (feet)
1940	Oct.	0.112	.089	.023	.023
1940	Nov.	0.112	.168	-.056	0
1940	Dec.	0.112	.125	-.013	0
1941	Jan.	0.112	.111	.001	.001
1941	Feb.	0.112	.103	.009	.010
1941	Mar.	0.112	.076	.036	.046
1941	Apr.	0.112	.416	-.304	0
1941	May	0.112	-.225	.337	.337
1941	June	0.112	.283	-.171	.166
1941	July	0.112	.338	-.226	0
1941	Aug.	0.112	.352	-.240	0
1941	Sept.	0.112	-.211	.323	.323
1941	Oct.	0.112	-.107	.219	.542
1941	Nov.	0.112	.180	-.068	.474
1941	Dec.	0.112	.121	-.009	.465
1942	Jan.	0.112	.113	-.001	.464
1942	Feb.	0.112	.235	-.123	.341
1942	Mar.	0.112	.438	-.326	.015
1942	Apr.	0.112	.278	-.166	0
1942	May	0.112	.534	-.422	0
1942	June	0.112	.564	-.452	0
1942	July	0.112	.550	-.438	0
1942	Aug.	0.112	.326	-.214	0
1942	Sept.	0.112	.294	-.182	0
1942	Oct.	0.112	.215	-.103	0
1942	Nov.	0.112	.257	-.145	0
1942	Dec.	0.112	-.001	.113	.113

Col. 3 - One barrel = 42 gallons = 5.615 cubic feet.
Depth of water = $\frac{5.615}{50}$ = 0.112 feet.

Col. 4 - From Col. 7, page 1.

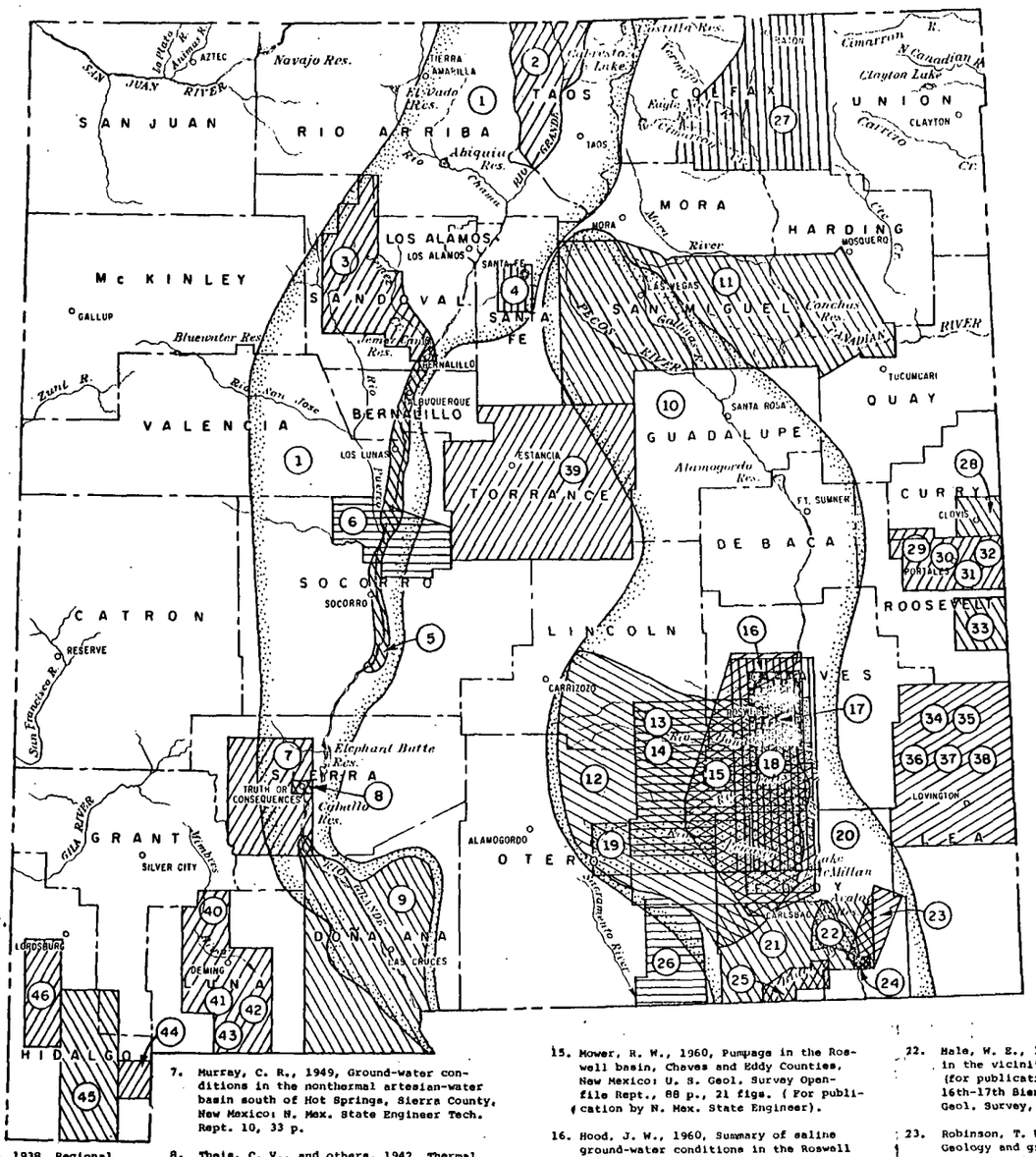


MAP

SHOWING DECLARED AREA

LEA COUNTY UNDERGROUND WATER BASIN

STATE ENGINEER OFFICE



Natl. Resources Comm., 1938, Regional planning, pt. VI, The Rio Grande joint investigation in the upper Rio Grande basin in Colorado, New Mexico, and Texas, 1936-37: Natl. Resources Comm., Washington, Feb. 1938, V. 1, 566 p., v.2, pls.

Winograd, I. J., 1959, Ground-water conditions and geology of Sunshine Valley and western Taos County, New Mexico: N.Mex. State Engineer Tech. Rept. 12, 69 p.

Renick, B. C., 1931, Geology and ground-water resources of western Sandoval County, New Mexico: U. S. Geol. Water-Supply Paper 620, 117.

Spiegel, Zane E., Baldwin, B., Kottlowski, F. E., Barrows, E.L., and Winkler, M. A., 1958, Geology and water resources of the Santa Fe area, New Mexico: U. S. Geol. Survey Open-file Rept., 403 p. (To be published as a U. S. Geol. Survey Water-Supply Paper).

Theis, C. V. and Taylor, G. C., Jr., 1938, Ground-water conditions in the Middle Rio Grande Valley, New Mexico: N. Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p. 263-271.

Spiegel, Zane E., 1955 Geology and ground-water resources of northeastern Socorro County, New Mexico: N. Mex. Inst. Min. and Technology, State Bur. Mines and Mineral Resources Ground-water Rept. 4, 99 p.

7. Murray, C. R., 1949, Ground-water conditions in the nonthermal artesian-water basin south of Hot Springs, Sierra County, New Mexico: N. Mex. State Engineer Tech. Rept. 10, 33 p.

8. Theis, C. V., and others, 1942, Thermal waters of the Hot Springs artesian basin, Sierra County, New Mexico: N. Mex. State Engineer 14th-15th Bienn. Repts., 1938-42, p.419-492 (1953).

9. Conover, C. S., 1954, Ground-water conditions in the Rincon and Mesilla Valleys and adjacent areas in New Mexico: U. S. Geol. Survey Water-Supply Paper 1230, 200 p.

10. Natl. Resources Plan. Board, 1942 Regional planning, pt. X, The Pecos River joint investigation, (1) Summary, Analyses, and findings, 207 p., (2) Report of the participating agencies, 407., (3) Atlas, 34 pls. Natl. Resources Plan. Board, Washington.

11. Griggs, R. L., and Hendrickson, G. E., 1951, Geology and ground-water resources of San Miguel County, New Mexico: N. Mex. Inst. Min. and Technology, State Bur. Mines and Mineral Res. Ground-water Rept. 2, 121 p.

12. Fiedler, A. G., and Nye, S.S., 1933, Geology and ground-water resources of the Roswell artesian basin, New Mexico: U. S. Geol. Survey Water-Supply Paper 639, 372 p.

13. Bean, R. T., 1957, Geology of the Roswell artesian basin, New Mexico and its relation to the Hondo Reservoir: N. Mex. State Engineer Tech. Rept. 9, p. 1-31.

14. Theis, C. V., 1957, Effect on artesian aquifer of storage of flood water in Hondo Reservoir: N. Mex. State Engineer Tech. Rept. 9, p. 33-36.

15. Mower, R. W., 1960, Pumpage in the Roswell basin, Chaves and Eddy Counties, New Mexico: U. S. Geol. Survey Open-file Rept., 88 p., 21 figs. (For publication by N. Mex. State Engineer).

16. Hood, J. W., 1960, Summary of saline ground-water conditions in the Roswell basin, Chaves and Eddy Counties, New Mexico: U. S. Geol. Survey Open-file Rept., 24 p., 8 figs. (To be published as a U. S. Geol. Survey Water-Supply Paper).

17. Hood, J. W., Mower, R. W., and Grogin, M. J., 1960, The occurrence of saline ground-water near Roswell, Chaves County, New Mexico: N. Mex. State Engineer Tech. Rept. 17, 93 p.

18. Morgan, A.M., 1938, Geology and shallow-water resources of the Roswell artesian basin, New Mexico.: N. Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p. 155-249.

19. Renick, B. C., 1926, Geology and ground-water resources of the drainage basin of the Rio Penasco above Hope, New Mexico.: N. Mex. State Engineer 7th Bienn. Rept., 1925-26, p. 103-138.

20. Hendrickson, G. E., and Jones, R. S., 1952 Geology and ground-water resources of Eddy County New Mexico.: N. Mex. Inst. Min. and Technology, State Bur. Mines and Mineral Resources Ground-water Rept. 3, 169 p.

21. Bjorklund, L. J., and Motts, W. S., 1959, Geology and water resources of the Carlsbad area, Eddy County, New Mexico: U. S. Geol. Survey Open-file Rept., 321 p., app. 132 p., 14 pls., 54 figs. (To be published as U. S. Geol. Survey Water-Supply Paper).

22. Hale, W. E., 1945, Ground-water conditions in the vicinity of Carlsbad, New Mexico, (for publication in N. Mex. State Engineer 16th-17th Bienn. Repts., 1942-46): U. S. Geol. Survey, typed, 77 p.

23. Robinson, T. W., and Lang, W. B., 1938, Geology and ground-water conditions of the Pecos River Valley in the vicinity of Laguna Grande de la Sal, New Mexico, with special reference to the salt content of the river water: N. Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p. 77-100, and Bull. 4.

24. Hale, W. E., and others, 1954, Possible improvement of quality of water of the Pecos River by diversion of brine at Malaga Bend, Eddy County, New Mexico: Pecos River Comm., N. Mex. and Texas, 43 p.

25. Hale, W. E., 1945, Ground-water conditions in the vicinity of Rattlesnake Springs, Eddy County, New Mexico: N. Mex. State Engineer Tech. Rept. 3, 54 p.

26. Bjorklund, L. J., 1957, Reconnaissance of ground-water conditions in the Crow Flats area, Otero County, New Mexico: N. Mex. State Engineer Tech. Rept. 8, 26 p.

27. Griggs, R. L., 1948, Geology and ground-water resources of the eastern part of Colfax County, New Mexico: N. Mex. School of Mines, State Bur. Mines and Mineral Res. Ground-water Rept. 1, 180 p.

28. Howard, J. W. Jr., 1954, Reconnaissance of ground-water conditions in Curry County, New Mexico: N. Mex. State Engineer Tech. Rept. 1, 35 p.

29. Theis, C. V., 1932, Report on the ground water in Curry and Roosevelt Counties, New Mexico: N. Mex. State Engineer 10th Bienn. Rept., 1930-32, p. 98-160.

Theis, C. V., 1934, Progress report on the ground-water supply of the Portales Valley, New Mexico: N.Mex. State Engineer 11th Bienn. Rept. 1932-34, p.87-108.

Theis, C. V., 1938, Progress report on the ground-water supply of the Portales Valley, New Mexico: N.Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p.101-118.

Conover, C. S., and Akin, P.D., 1942, Progress report on the ground-water supply of Portales Valley, New Mexico: N.Mex. State Engineer 14th-15th Bienn. Repts., 1938-42, p.311-346.

Cooper, James B., 1960, Ground-water in the Causey-Lingo area, Roosevelt County, New Mexico: N.Mex. State Engineer Tech. Rept.14, 51 p.

Nye, S. S., 1930, Shallow ground-water supplies in northern Lea County, New Mexico: N. Mex. State Engineer 9th Bienn. Rept., 1928-30, p.363-387.

Nye, S. S., 1932, Progress report on the ground-water supply of northern Lea County, New Mexico: N.Mex. State Engineer 10th Bienn. Rept., 1930-32, p.229-251.

Theis, C. V., 1934, Progress Report on the ground-water supply of Lea County, New Mexico: N. Mex. State Engineer 11th Bienn. Rept., 1932-34, p.127-153.

Theis, C. V., 1938, Progress report on the ground-water supply of Lea County, New Mexico: N.Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p.121-133.

Conover, C.S., and Akin, P.D., 1942, Progress report on the ground-water supply of northern Lea County, New Mexico; N.Mex. State Engineer 14th-15th Bienn. Repts., 1938-42, p.283-309.

39. Smith, R. E., 1957, Geology and ground-water resources of Torrance County, New Mexico: N.Mex. Inst. Mining and Technology, State Bur. Mines and Mineral Resources Ground-water Rept. 5, 186 p.

40. White, W. N., 1931, Preliminary report on the ground-water supply of Mimbres Valley, New Mexico: U. S. Geological Survey Water-Supply Paper 637-B, p.69-90. Also pub. in N. Mex. State Engineer 9th Bienn. Rept., 1928-30, p.131-152.

41. White, W.N., 1954, Progress report on the ground-water supply of the Mimbres Valley, New Mexico: N. Mex. State Engineer 11th Bienn. Rept., 1932-34, p.109-125.

42. Theis, C. V., 1938, Progress report on the ground-water supply of the Mimbres Valley, New Mexico: N.Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p.135-153.

43. Conover, C. S., and Akin, P.D., 1942, Progress report on the ground-water supply of Mimbres Valley, New Mexico, 1938-41: N.Mex. State Engineer 14th-15th Bienn. Repts., 1938-42, p.235-282.

44. Trauger, F.D., and Herrick, E.H., 1958, Occurrence of ground water in central Machita Valley northeast of the Big Hatchet Mountains, Hidalgo County, New Mexico: U. S. Geol. Survey Open-file Rept., 30 p. (For publication by N.Mex. State Engineer.)

45. Doty, Gene C., 1960, Reconnaissance of ground-water in Playas Valley, Hidalgo County, New Mexico: N. Mex. State Engineer Tech. Rept., 15, 40 p.

46. Reeder, H. O., 1958, Ground water in Animas Valley, Hidalgo County, New Mexico: N. Mex. State Engineer Tech. Rept. 11, 101 p.

MAJOR BASIC AND PROGRESS GROUND-WATER STUDIES

BY THE
U.S. GEOLOGICAL SURVEY

UNDER COOPERATIVE AGREEMENTS
WHEREIN THE STATE ENGINEER
IS A PARTY

JUNE - 1960

STATE ENGINEER OFFICE
DRAWN BY M.H.BOYCE
JUNE 1960

0 5 10 20 30 40 50
SCALE IN MILES

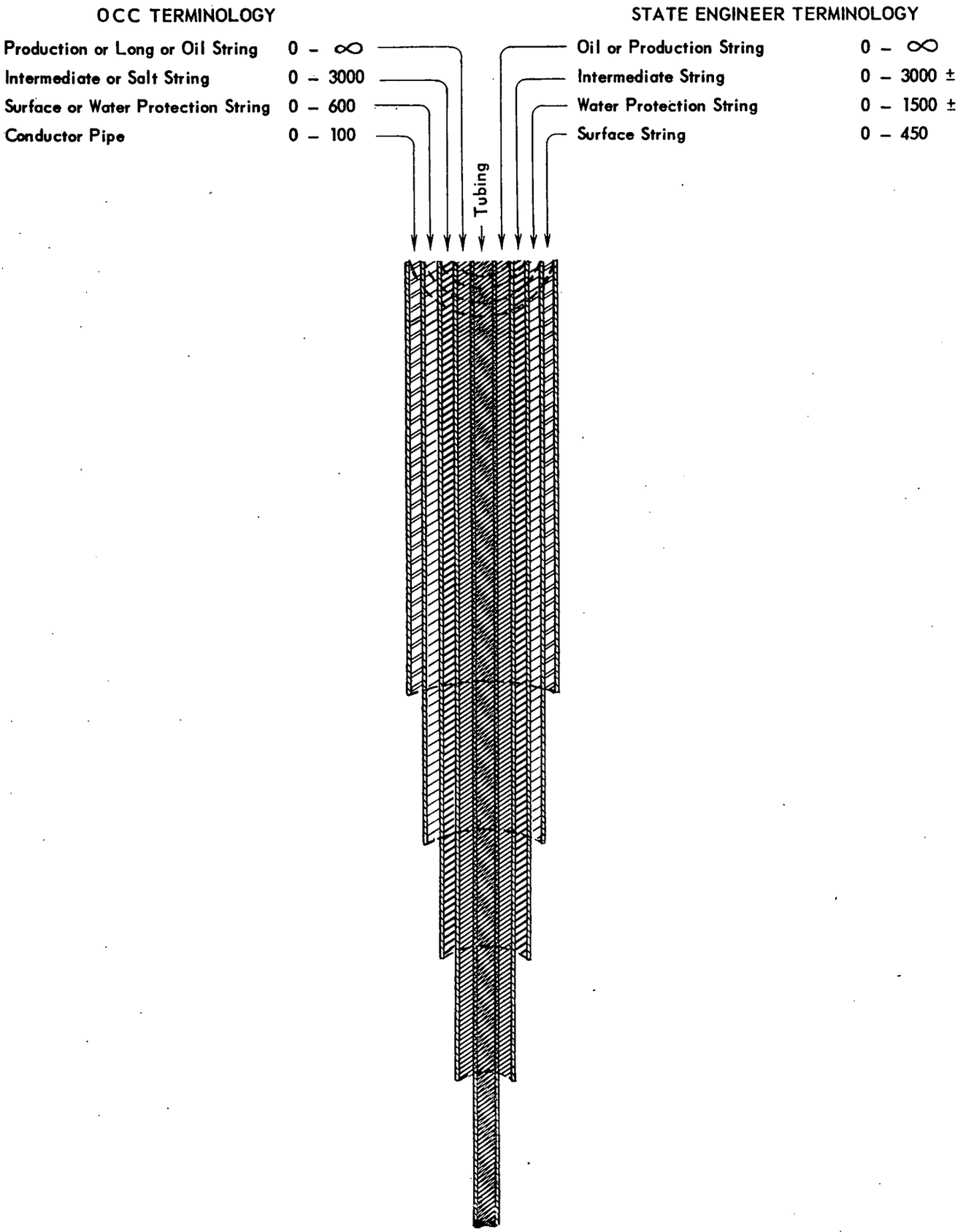


DIAGRAM
of
WELL CASING IN ARTESIAN BASINS

for the purpose of demonstrating the difference in the terminology of the State Engineer Office and the Oil Conservation Commission, and to clarify State Engineer Order No. 63 issued on 11 September 1956. No mention of liners or a second intermediate string, which might be required for an extremely deep hole, is made since neither would have significance in this program. Note that the curved, dashed lines connect the comparable casing walls and that the lengths of the two outer strings may vary considerably.

CALCULATED EVAPORATION OF SALINE WATER FROM SEALED PITS IN THE VICINITY OF HOBBS, NEW MEXICO

(Calculations for the period October 1940 to December 1942, inclusive, for different surface areas per barrel of saline water placed in pits per month)

Prepared by

D. E. Gray and P. D. Akin

STATE ENGINEER OFFICE
SANTA FE, NEW MEXICO
SEPTEMBER 1958

ESTIMATE OF NET EVAPORATION OF SALINE WATER FROM PITS NEAR HOBBS, NEW MEXICO

(1) Year	(2) Month	(3) Pan evap. Portales (inches)	(4) Estimated pan evap. Hobbs (inches)	(5) Estimated gross evap. -saline water from pits near Hobbs (inches)	(6) Precip. Hobbs (inches)	(7) Estimated net evap.-saline water from pit near Hobbs (inches)	(7) (feet)
1940	Jan.	1.425	1.54	0.92	0.05	0.87	0.072
	Feb.	4.365	4.73	2.84	0.56	2.28	0.190
	Mar.	8.484	9.20	5.52	0.25	5.27	0.439
	Apr.	9.161	9.93	5.96	1.25	4.71	0.392
	May	9.945	10.78	6.47	0.63	5.84	0.486
	June	11.518	12.48	7.49	4.10	3.39	0.282
	July	14.775	16.02	9.61	0.55	9.06	0.755
	Aug.	8.919	9.67	5.80	2.80	3.00	0.250
	Sept.	10.248	11.11	6.67	-	6.67	0.555
	Oct.	6.957	7.54	4.52	3.45	1.07	0.089
	Nov.	4.792	5.19	3.11	1.09	2.02	0.168
	Dec.	2.810	3.05	1.83	0.33	1.50	0.125
	TOTAL:	93.399	101.24	60.74	15.06	45.68	3.803
1941	Jan.	2.389	2.59	1.55	0.22	1.33	0.111
	Feb.	3.200	3.47	2.08	0.84	1.24	0.103
	Mar.	5.832	6.32	3.79	2.88	0.91	0.076
	Apr.	8.735	9.47	5.68	0.69	4.99	0.416
	May	9.969	10.81	6.49	9.19	-2.70	-0.225
	June	9.875	10.70	6.42	3.03	3.39	0.283
	July	9.794	10.62	6.37	2.32	4.05	0.338
	Aug.	8.338	9.04	5.42	1.19	4.23	0.352
	Sept.	6.443	6.98	4.19	6.72	-2.53	-0.211
	Oct.	5.191	5.63	3.38	4.66	-1.28	-0.107
	Nov.	3.452	3.74	2.24	0.08	2.16	0.180
	Dec.	2.805	3.04	1.82	0.37	1.45	0.121
	TOTAL:	76.023	82.41	49.43	32.19	17.24	1.437
1942	Jan.	2.676*	2.53**	1.52	0.16	1.36	0.113
	Feb.	4.943*	4.68**	2.81	-	2.81	0.235
	Mar.	8.854	9.60	5.76	0.50	5.26	0.438
	Apr.	7.752	8.40	5.04	1.71	3.33	0.278
	May	12.100	13.12	7.87	1.47	6.40	0.534
	June	12.726	13.79	8.27	1.51	6.76	0.564
	July	11.826	12.82	7.69	1.10	6.59	0.550
	Aug.	10.458	11.34	6.80	2.89	3.91	0.326
	Sept.	6.462	7.00	4.20	0.67	3.53	0.294
	Oct.	5.298	5.74	3.44	0.86	2.58	0.215
	Nov.	4.735	5.13	3.08	0	3.08	0.257
	Dec.	2.876	3.12	1.87	1.88	-0.01	-0.001
	TOTAL:	90.706	97.27	58.35	12.75	45.60	3.803

NOTES

Col.3-Taken from State Engr Tech.Rept.#5, page #266. Values are minimum recorded for period of record 1934-1954.

Col.4-Taken from Fig. 7, p.54 "Tentative Plan for Develop. of land & water Resources-NM Portion-AWR". Portales-4000' elev. gave 67". Hobbs-3600' elev.gave 72.6" - Ratio $\frac{72.6}{67} = 1.084$

Col.5- 0.60-Conversion factor from pan evap. to surface water evap. for saline water. See p.39"Possible Improvement of Quality of Water of the Pecos River by Diversion of Brine at Malaga Bend, Eddy Cty, NM," USGS-Dec. 1954.

Col.6-Page 187-State Engr. Tech. Rept.#6-Mean Monthly values for period of record 1913-1954.

Col.7-Equals Column #5 minus Column #6.

* Portales evaporation record not available for these months. Figures are pan evaporation from Lake McMillan station.

** See note Col. 4.

Evaporation at Lake McMillan (3280' elevation) = 76.7"

Evaporation at Hobbs (3600' elevation) = 72.6"

$$\text{Ratio} = \frac{72.6}{76.7} = 0.946$$

ESTIMATED ACCUMULATED DEPTH OF SALINE WATER IN SEALED PITS NEAR HOBBS

BY MONTHS FROM OCTOBER 1940 TO DECEMBER 1942, INCLUSIVE

(Surface area 25 square feet per barrel of saline water per month)

(1) Year	(2) Month	(3) Depth of saline water placed in pits (feet)	(4) Estimated net evap. saline water from pits near Hobbs (ft.)	(5) Difference Col. 3 minus Col. 4 (feet)	(6) Accumulated depth of water in pits (feet)
1940	Oct.	.224	.089	.135	.135
1940	Nov.	.224	.168	.056	.191
1940	Dec.	.224	.125	.099	.290
1941	Jan.	.224	.111	.113	.403
1941	Feb.	.224	.103	.121	.524
1941	Mar.	.224	.076	.148	.672
1941	Apr.	.224	.416	-.192	.480
1941	May	.224	-.225	.449	.929
1941	June	.224	.283	-.059	.870
1941	July	.224	.338	-.114	.756
1941	Aug.	.224	.352	-.128	.628
1941	Sept.	.224	-.211	.435	1.063
1941	Oct.	.224	-.107	.331	1.394
1941	Nov.	.224	.180	.044	1.438
1941	Dec.	.224	.121	.103	1.541
1942	Jan.	.224	.113	.111	1.652
1942	Feb.	.224	.235	-.011	1.641
1942	Mar.	.224	.438	-.214	1.427
1942	Apr.	.224	.278	-.054	1.373
1942	May	.224	.534	-.310	1.063
1942	June	.224	.564	-.340	.723
1942	July	.224	.550	-.326	.397
1942	Aug.	.224	.326	-.102	.295
1942	Sept.	.224	.294	-.070	.225
1942	Oct.	.224	.215	.009	.234
1942	Nov.	.224	.257	-.033	.201
1942	Dec.	.224	-.001	+.225	.426

Col. 3 - One barrel = 42 gallons = 5.615 cubic feet.
Depth of water = $\frac{5.615}{25}$ = 0.224 feet.

Col. 4 - From Col. 7, page 1.

ESTIMATED ACCUMULATED DEPTH OF SALINE WATER IN SEALED PITS NEAR HOBBS

BY MONTHS FROM OCTOBER 1940 TO DECEMBER 1942, INCLUSIVE

(Surface area 30 square feet per barrel of saline water per month)

(1) Year	(2) Month	(3) Depth of saline water placed in pits (feet)	(4) Estimated net evap. saline water from pits near Hobbs (ft.)	(5) Difference Col. 3 minus Col. 4 (feet)	(6) Accumulated depth of water in pits (feet)
1940	Oct.	.187	.089	.098	.098
1940	Nov.	.187	.168	.019	.117
1940	Dec.	.187	.125	.062	.179
1941	Jan.	.187	.111	.076	.255
1941	Feb.	.187	.103	.084	.339
1941	Mar.	.187	.076	.111	.450
1941	Apr.	.187	.416	-.229	.221
1941	May	.187	-.225	.412	.633
1941	June	.187	.283	-.096	.537
1941	July	.187	.338	-.151	.386
1941	Aug.	.187	.352	-.165	.221
1941	Sept.	.187	-.211	.398	.619
1941	Oct.	.187	-.107	.294	.913
1941	Nov.	.187	.180	.007	.920
1941	Dec.	.187	.121	.066	.986
1942	Jan.	.187	.113	.074	1.060
1942	Feb.	.187	.235	-.048	1.012
1942	Mar.	.187	.438	-.251	.761
1942	Apr.	.187	.278	-.091	.670
1942	May	.187	.534	-.347	.323
1942	June	.187	.564	-.377	0
1942	July	.187	.550	-.363	0
1942	Aug.	.187	.326	-.139	0
1942	Sept.	.187	.294	-.107	0
1942	Oct.	.187	.215	-.028	0
1942	Nov.	.187	.257	-.070	0
1942	Dec.	.187	-.001	+.188	.188

Col. 3 - One barrel = 42 gallons = 5.615 cubic feet.

Depth of water = $\frac{5.615}{30}$ = 0.187 feet

Col. 4 - From Col. 7, page 1.

ESTIMATED ACCUMULATED DEPTH OF SALINE WATER IN SEALED PITS NEAR HOBBS

BY MONTHS FROM OCTOBER 1940 TO DECEMBER 1942, INCLUSIVE

(Surface area 40 square feet per barrel of saline water per month)

(1) Year	(2) Month	(3) Depth of saline water placed in pits (feet)	(4) Estimated net evap: saline water from pits near Hobbs (ft:	(5) Difference Col.3 minus Col.4 (feet)	(6) Accumulated depth of water in pits (feet)
1940	Oct.	.140	.089	.051	.051
1940	Nov.	.140	.168	-.028	.023
1940	Dec.	.140	.125	.015	.038
1941	Jan.	.140	.111	.029	.067
1941	Feb.	.140	.103	.037	.104
1941	Mar.	.140	.076	.064	.168
1941	Apr.	.140	.416	-.276	0
1941	May	.140	-.225	.365	.365
1941	June	.140	.283	-.143	.222
1941	July	.140	.338	-.198	.024
1941	Aug.	.140	.352	-.212	0
1941	Sept.	.140	-.211	.351	.351
1941	Oct.	.140	-.107	.247	.598
1941	Nov.	.140	.180	-.040	.558
1941	Dec.	.140	.121	.019	.577
1942	Jan.	.140	.113	.027	.604
1942	Feb.	.140	.235	-.095	.509
1942	Mar.	.140	.438	-.298	.211
1942	Apr.	.140	.278	-.138	.073
1942	May	.140	.534	-.394	0
1942	June	.140	.564	-.424	0
1942	July	.140	.550	-.410	0
1942	Aug.	.140	.326	-.186	0
1942	Sept.	.140	.294	-.154	0
1942	Oct.	.140	.215	-.075	0
1942	Nov.	.140	.257	-.117	0
1942	Dec.	.140	-.001	.141	.141

Col. 3 - One barrel = 42 gallons = 5.615 cubic feet.

Depth of water = $\frac{5.615}{40}$ = 0.140 feet.

Col. 4 - From Col. 7, page 1.

ESTIMATED ACCUMULATED DEPTH OF SALINE WATER IN SEALED PITS NEAR HOBBS

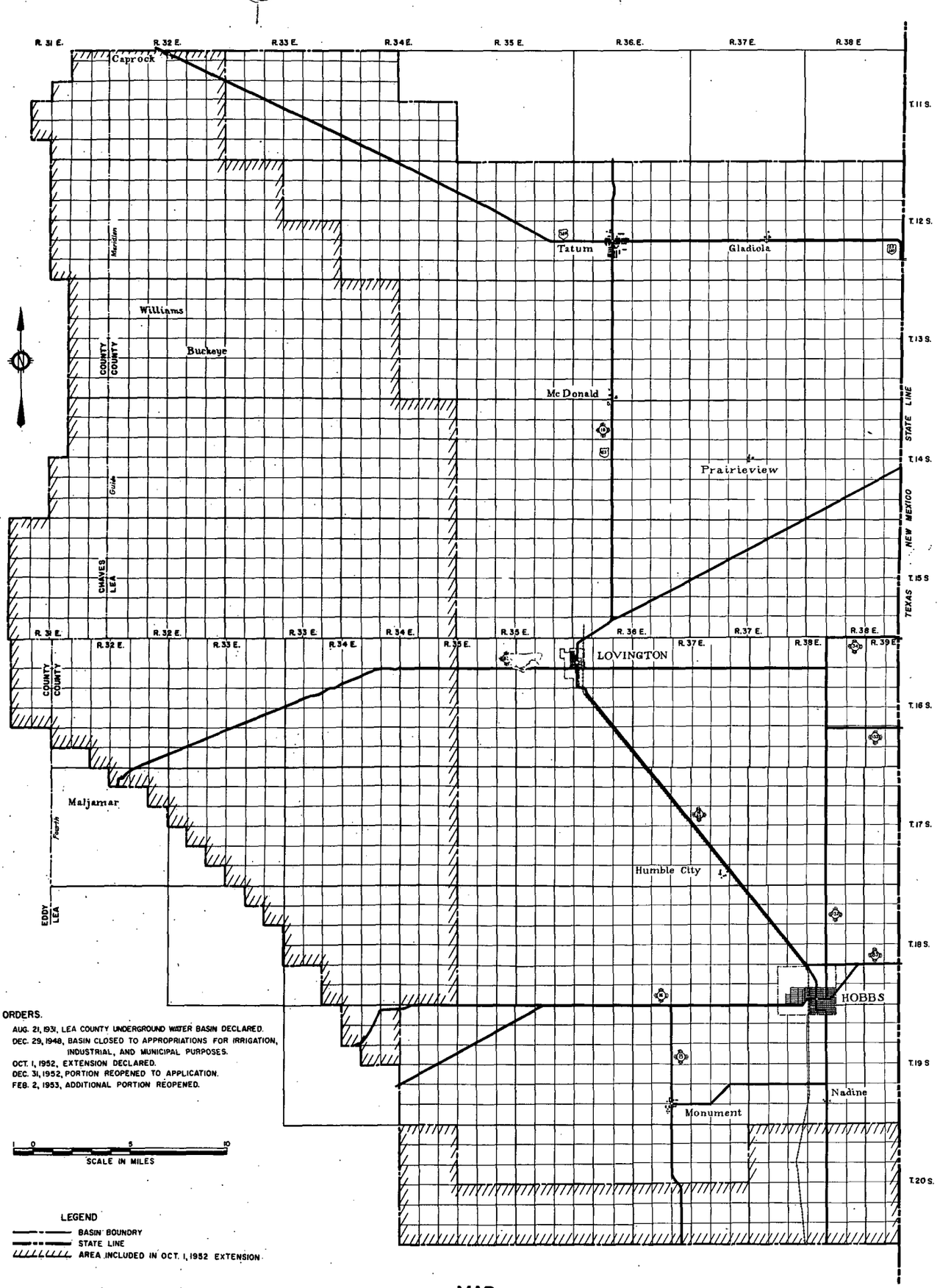
BY MONTHS FROM OCTOBER 1940 TO DECEMBER 1942, INCLUSIVE

(Surface area 50 square feet per barrel of saline water per month)

(1) Year	(2) Month	(3) Depth of saline water placed in pits (feet)	(4) Estimated net evap: saline water from pits near Hobbs(ft:	(5) Difference Col.3 minus Col.4(feet)	(6) Accumulated depth of water in pits (feet)
1940	Oct.	0.112	.089	.023	.023
1940	Nov.	0.112	.168	-.056	0
1940	Dec.	0.112	.125	-.013	0
1941	Jan.	0.112	.111	.001	.001
1941	Feb.	0.112	.103	.009	.010
1941	Mar.	0.112	.076	.036	.046
1941	Apr.	0.112	.416	-.304	0
1941	May	0.112	-.225	.337	.337
1941	June	0.112	.283	-.171	.166
1941	July	0.112	.338	-.226	0
1941	Aug.	0.112	.352	-.240	0
1941	Sept.	0.112	-.211	.323	.323
1941	Oct.	0.112	-.107	.219	.542
1941	Nov.	0.112	.180	-.068	.474
1941	Dec.	0.112	.121	-.009	.465
1942	Jan.	0.112	.113	-.001	.464
1942	Feb.	0.112	.235	-.123	.341
1942	Mar.	0.112	.438	-.326	.015
1942	Apr.	0.112	.278	-.166	0
1942	May	0.112	.534	-.422	0
1942	June	0.112	.564	-.452	0
1942	July	0.112	.550	-.438	0
1942	Aug.	0.112	.326	-.214	0
1942	Sept.	0.112	.294	-.182	0
1942	Oct.	0.112	.215	-.103	0
1942	Nov.	0.112	.257	-.145	0
1942	Dec.	0.112	-.001	.113	.113

Col. 3 - One barrel = 42 gallons = 5.615 cubic feet.
Depth of water = $\frac{5.615}{50}$ = 0.112 feet.

Col. 4 - From Col. 7, page 1.

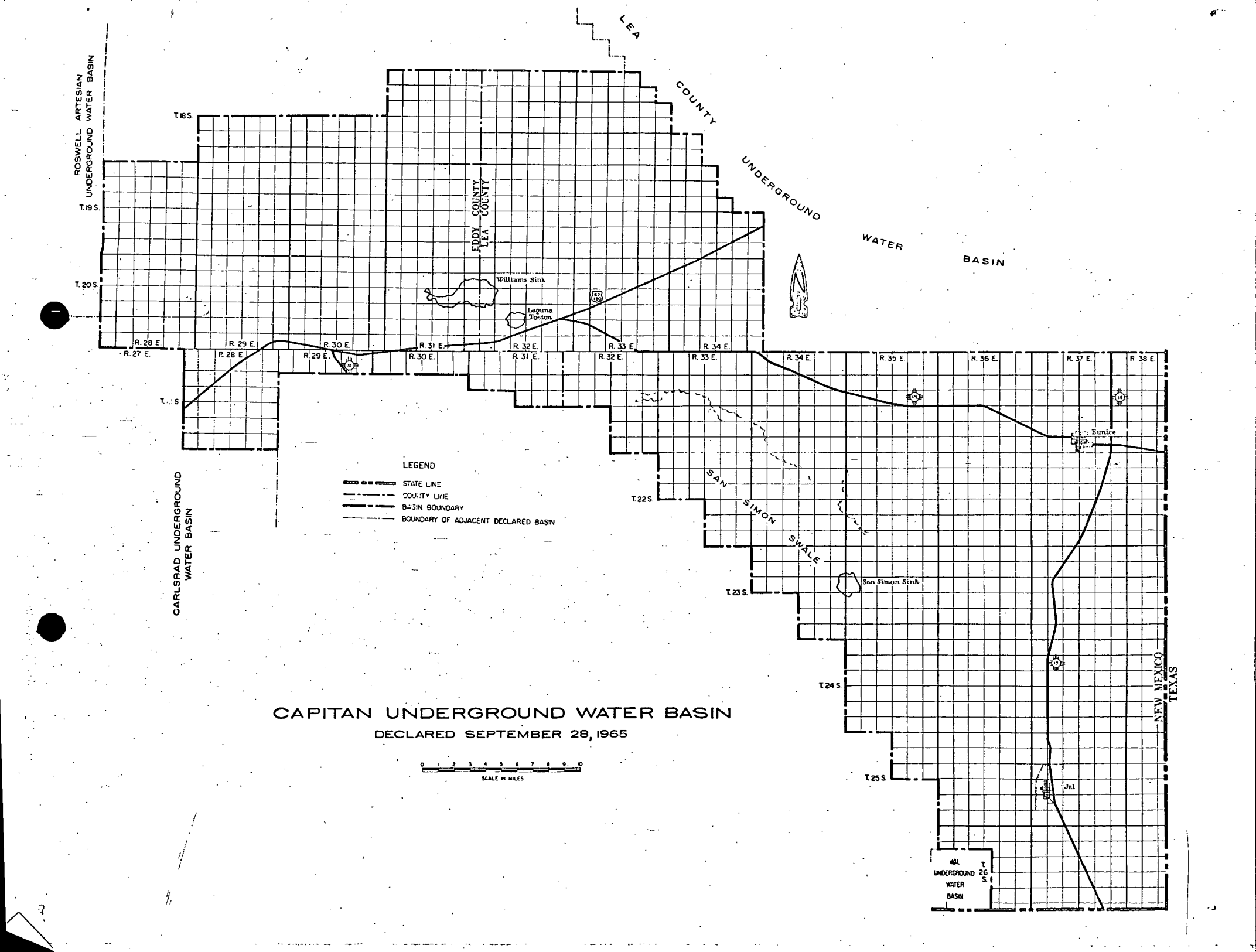


MAP

SHOWING DECLARED AREA

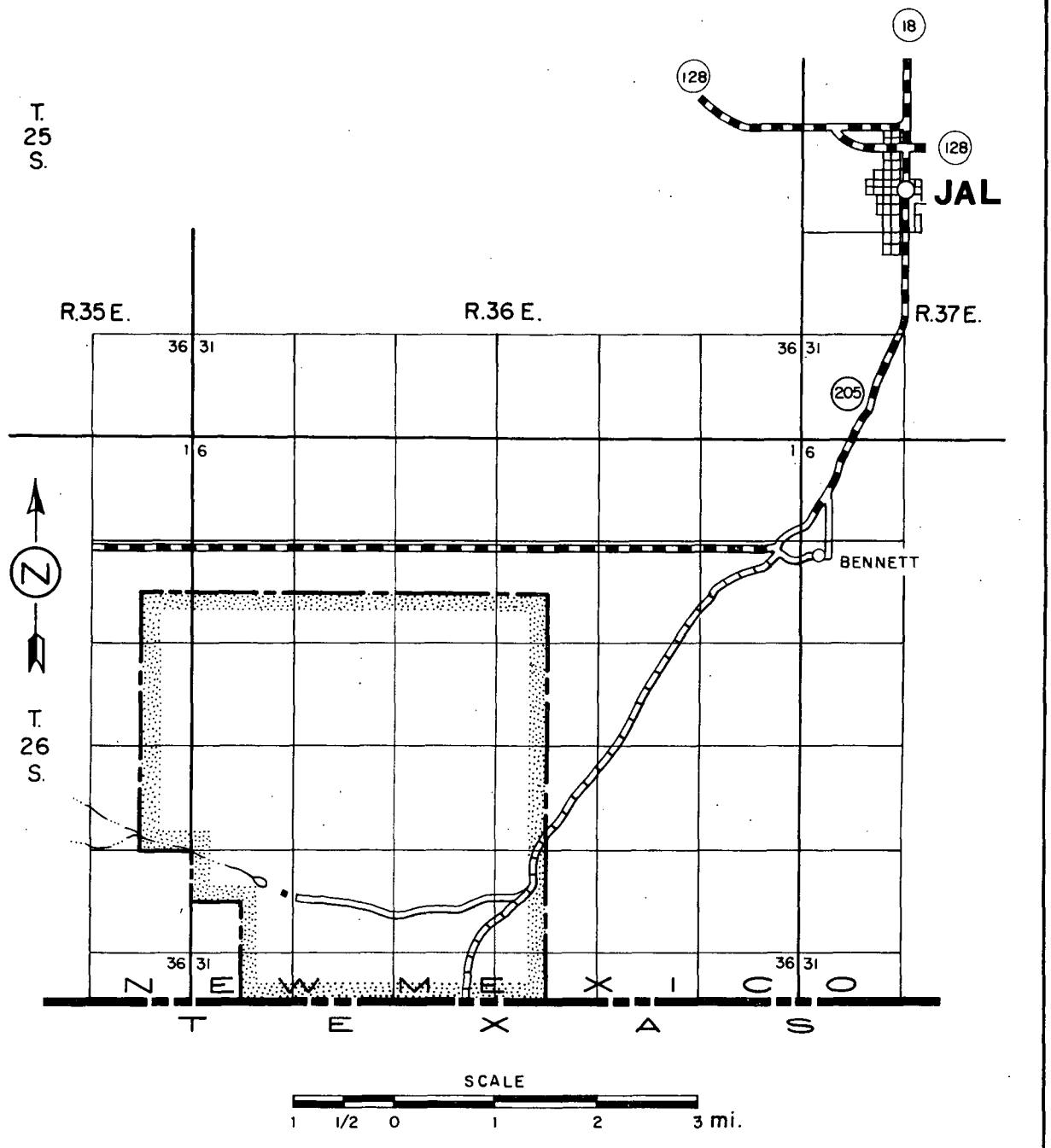
LEA COUNTY UNDERGROUND WATER BASIN

STATE ENGINEER OFFICE



CAPITAN UNDERGROUND WATER BASIN

DECLARED SEPTEMBER 28, 1965



JAL UNDERGROUND WATER BASIN

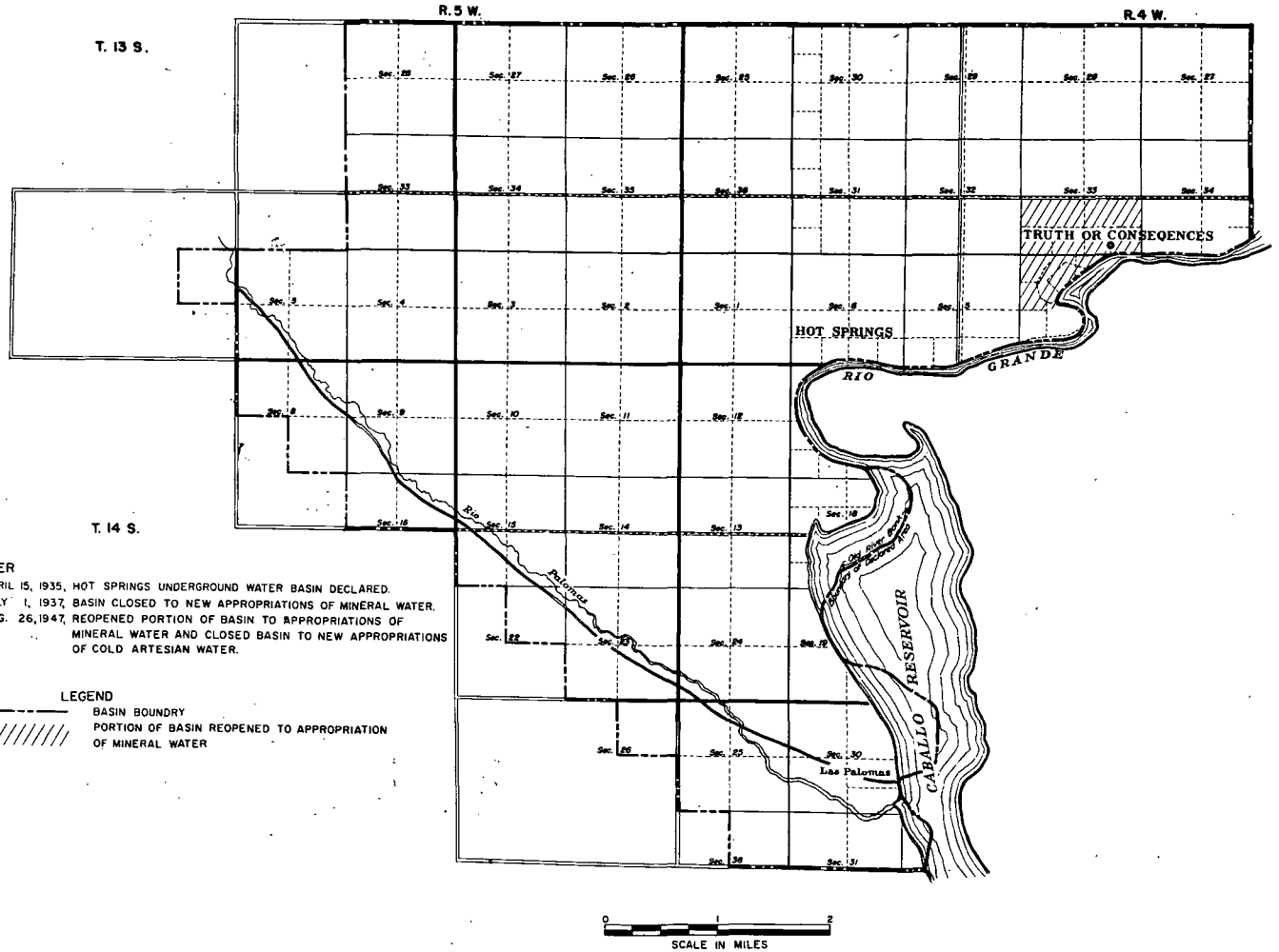
DECLARED NOVEMBER 24, 1961

STATE OF NEW MEXICO STATE ENGINEER OFFICE JAL UNDERGROUND WATER BASIN		
DATE - NOVEMBER 24, 1961		
DRAWN BY M. H. BOYCE APPROVED	SHEET NO.	FILE NO.

MAP

SHOWING DECLARED AREA

HOT SPRINGS UNDERGROUND WATER BASIN



ORDER

APRIL 15, 1935, HOT SPRINGS UNDERGROUND WATER BASIN DECLARED.
JULY 1, 1937, BASIN CLOSED TO NEW APPROPRIATIONS OF MINERAL WATER.
AUG. 26, 1947, REOPENED PORTION OF BASIN TO APPROPRIATIONS OF MINERAL WATER AND CLOSED BASIN TO NEW APPROPRIATIONS OF COLD ARTESIAN WATER.

LEGEND

——— BASIN BOUNDRY

////////// PORTION OF BASIN REOPENED TO APPROPRIATION OF MINERAL WATER

0 1 2

SCALE IN MILES

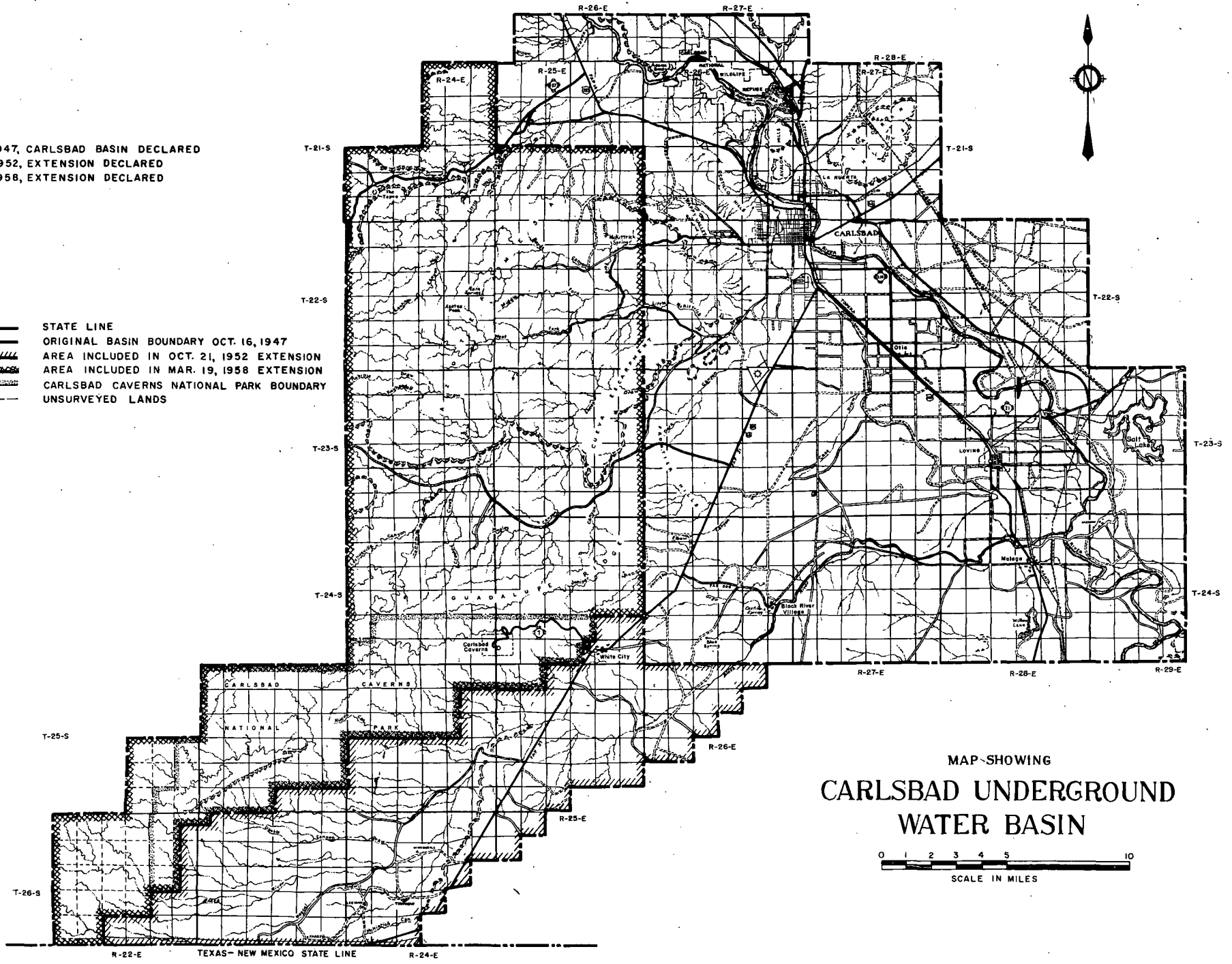
STATE ENGINEER OFFICE

ORDERS

OCT. 16, 1947, CARLSBAD BASIN DECLARED
OCT. 21, 1952, EXTENSION DECLARED
MAR. 19, 1958, EXTENSION DECLARED

LEGEND

- STATE LINE
- ORIGINAL BASIN BOUNDARY OCT. 16, 1947
- AREA INCLUDED IN OCT. 21, 1952 EXTENSION
- AREA INCLUDED IN MAR. 19, 1958 EXTENSION
- CARLSBAD CAVERNS NATIONAL PARK BOUNDARY
- UNSURVEYED LANDS



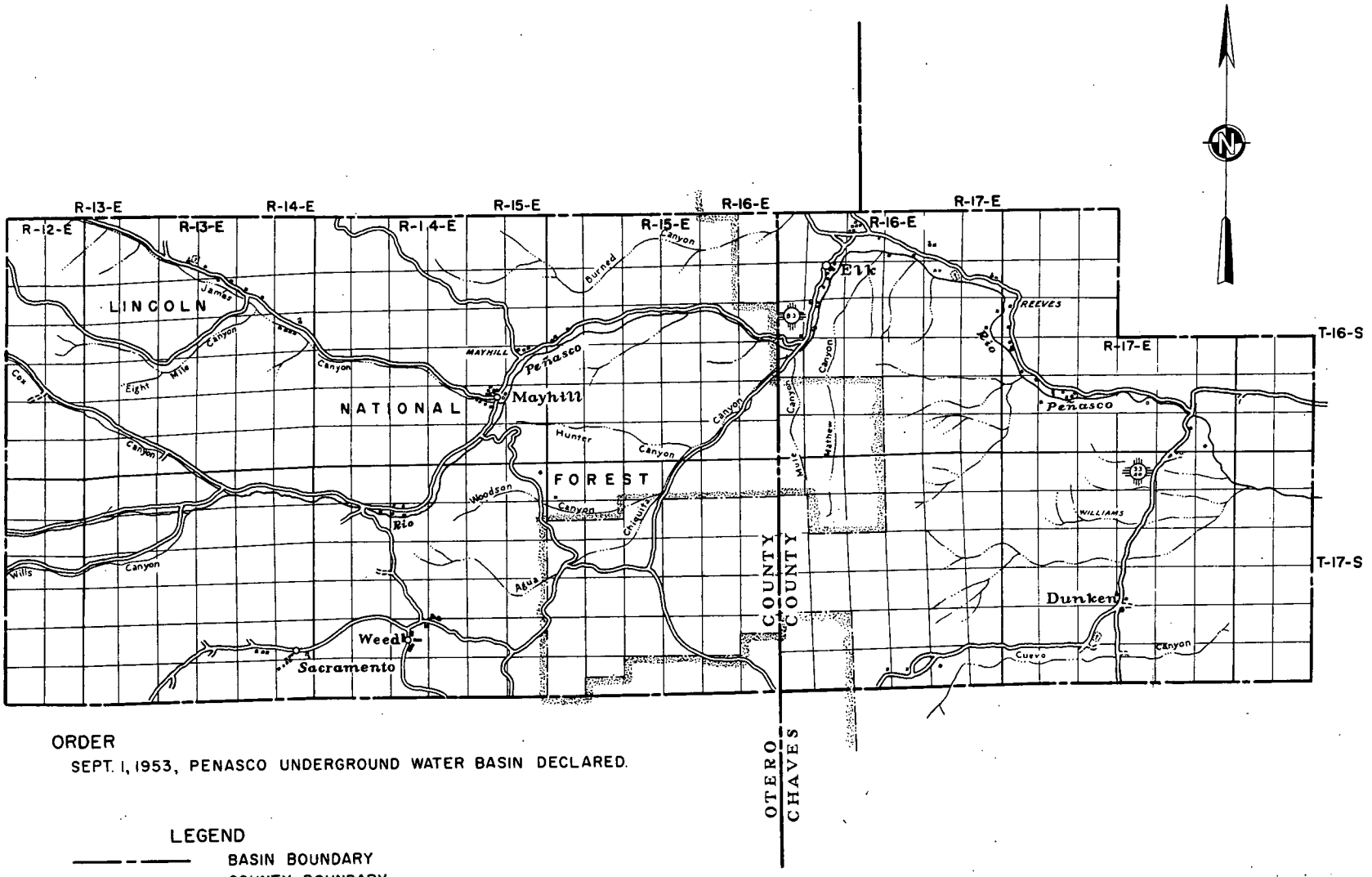
MAP SHOWING

CARLSBAD UNDERGROUND WATER BASIN

0 1 2 3 4 5 10

SCALE IN MILES

STATE ENGINEER OFFICE



ORDER

SEPT. 1, 1953, PENASCO UNDERGROUND WATER BASIN DECLARED.

LEGEND

- BASIN BOUNDARY
- COUNTY BOUNDARY
- NATIONAL FOREST BOUNDARY

STATE ENGINEER OFFICE

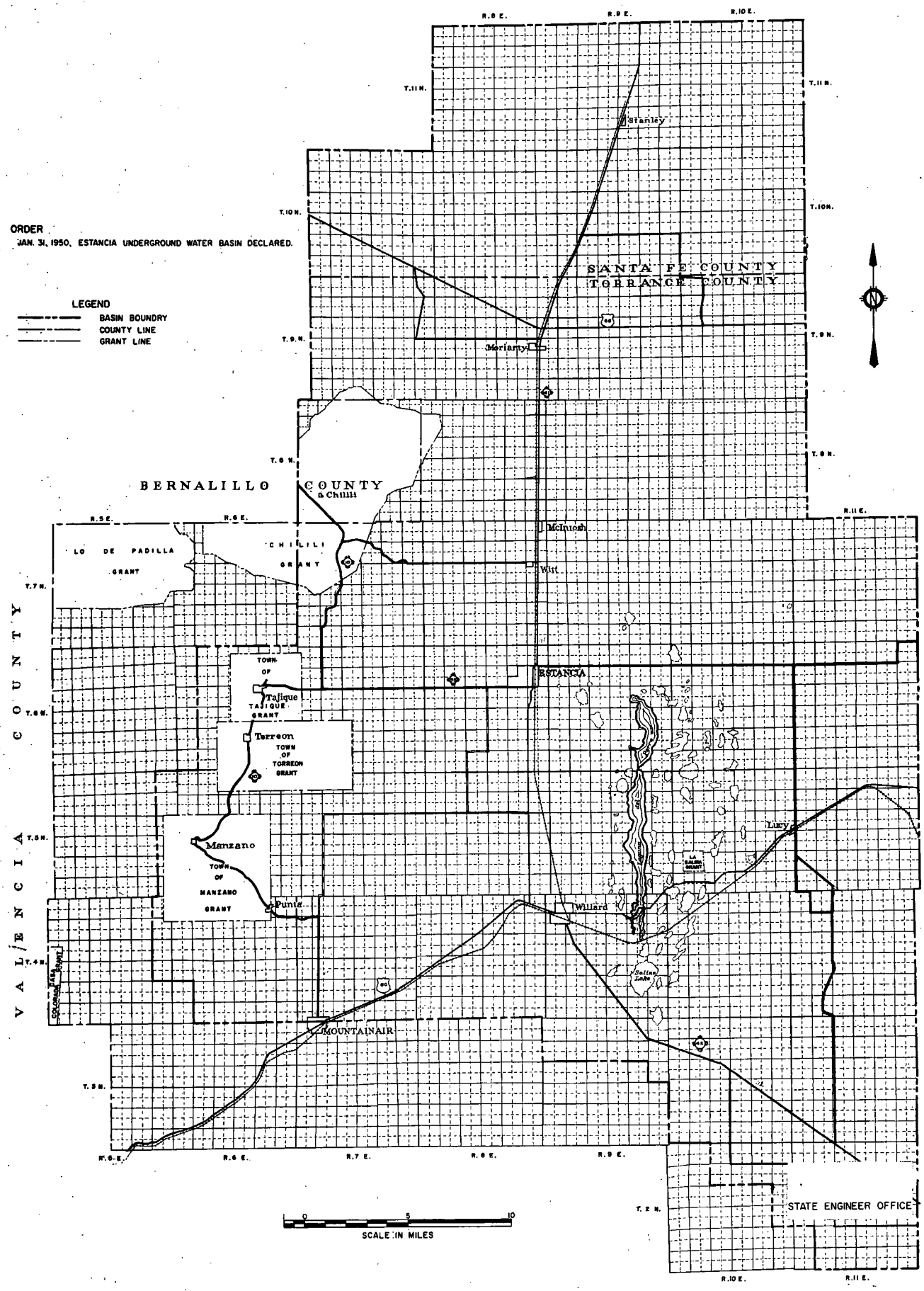
MAP SHOWING

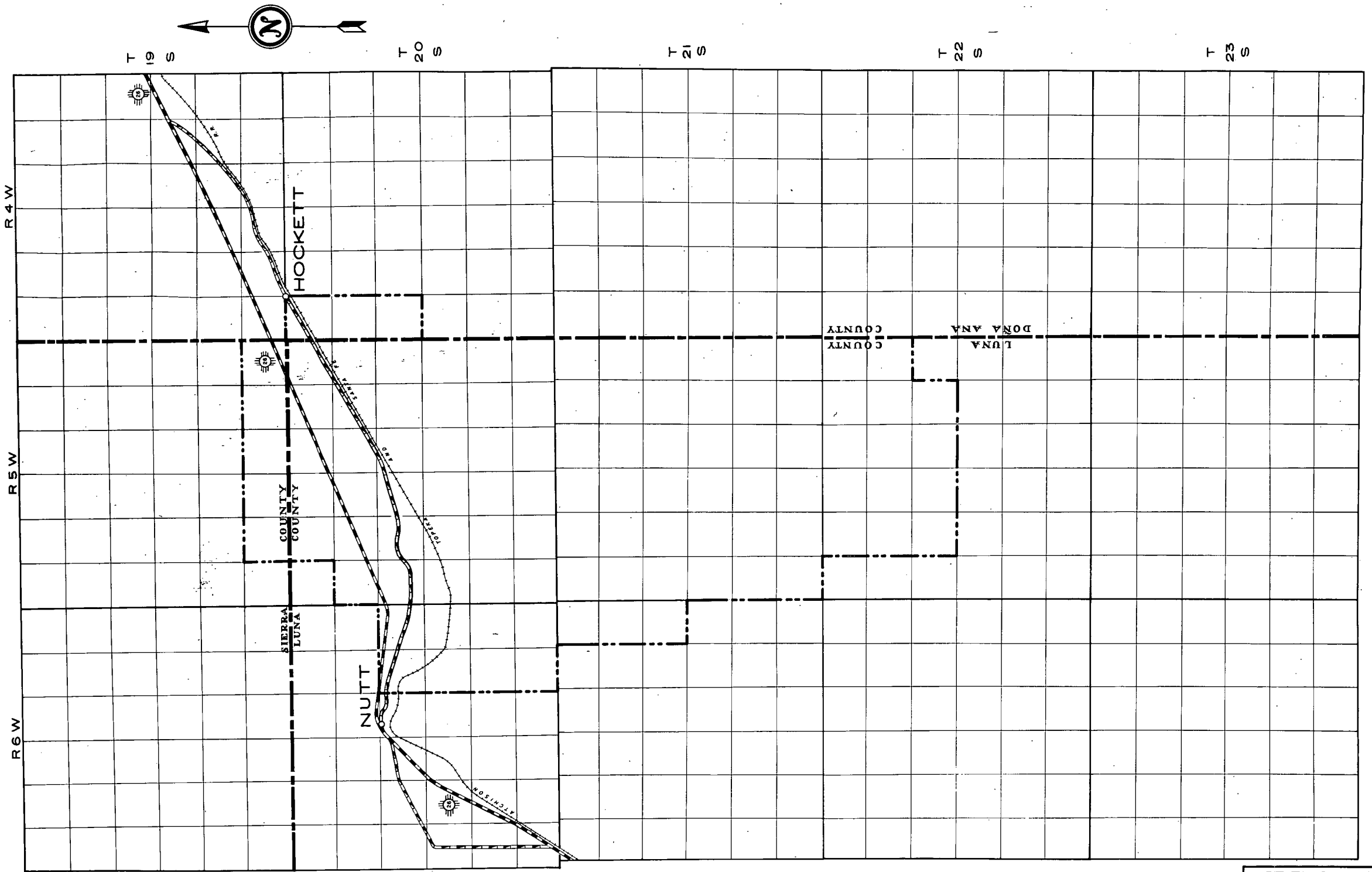
PEÑASCO UNDERGROUND WATER BASIN

1 0 1 2 3 4 5 6

SCALE IN MILES

ESTANCIA
UNDERGROUND WATER
BASIN





NUTT - HOCKETT UNDERGROUND WATER BASIN

DECLARED AUGUST 11, 1961

BASIN BOUNDARY
STATE BOUNDARY
0
SCALE IN MILES

STATE OF NEW MEXICO
STATE ENGINEER OFFICE
S.E. REYNOLDS, STATE ENGINEER

NUTT-HOCKETT
UNDERGROUND WATER BASIN

DATE AUGUST 11, 1961

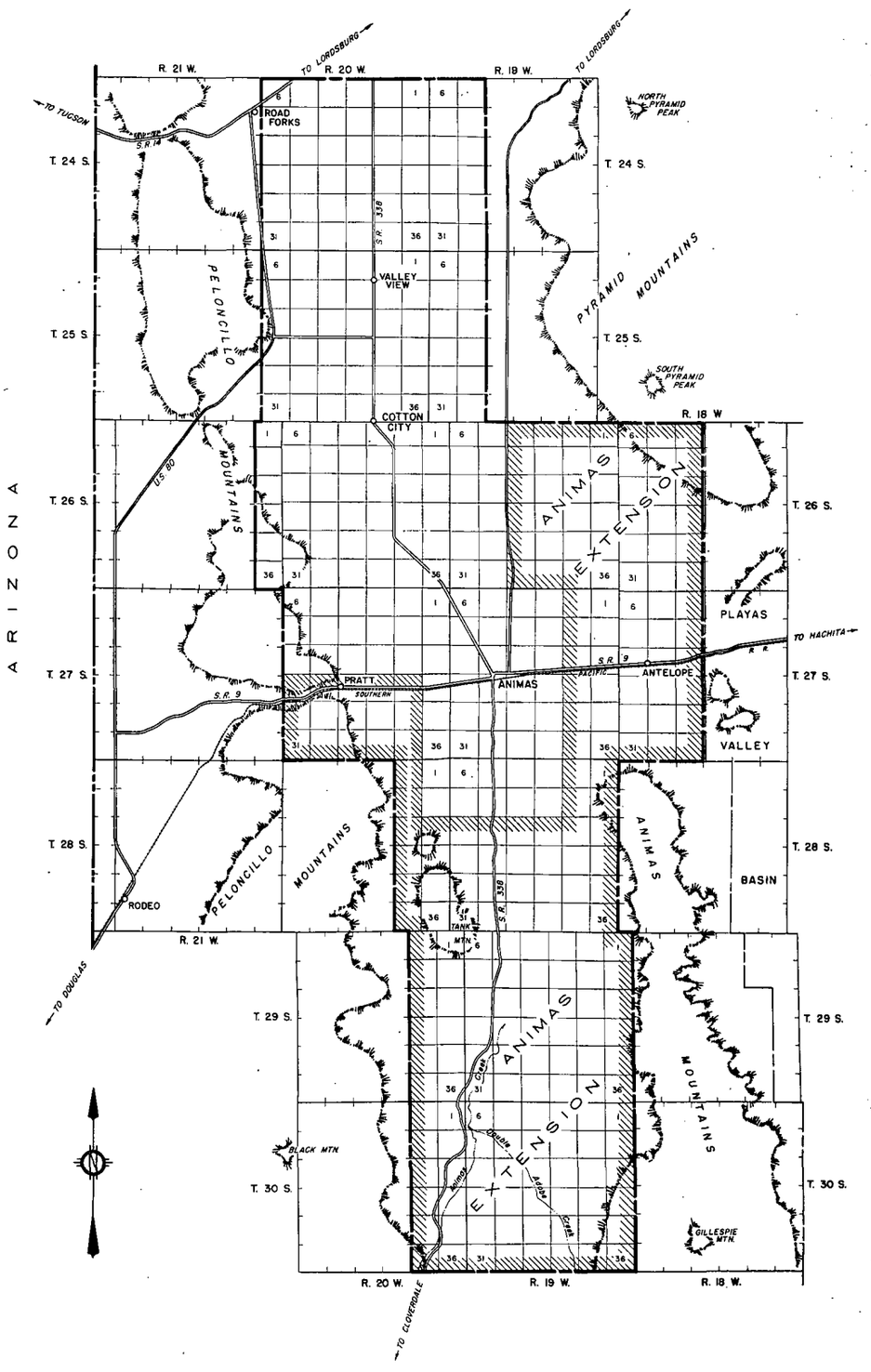
DESIGNED	SHEET NO.	FILE NO.
DRAWN BY M. H. BOYCE		
APPROVED		

ANIMAS VALLEY
UNDERGROUND WATER BASIN

May 5, 1948, Animas Valley Underground Water Basin declared.

June 14, 1948, Basin closed to appropriations for irrigation, municipal, and industrial purposes.

Feb. 23, 1956, Extension declared and closed.



LEGEND

ANIMAS BASIN BOUNDARY ———

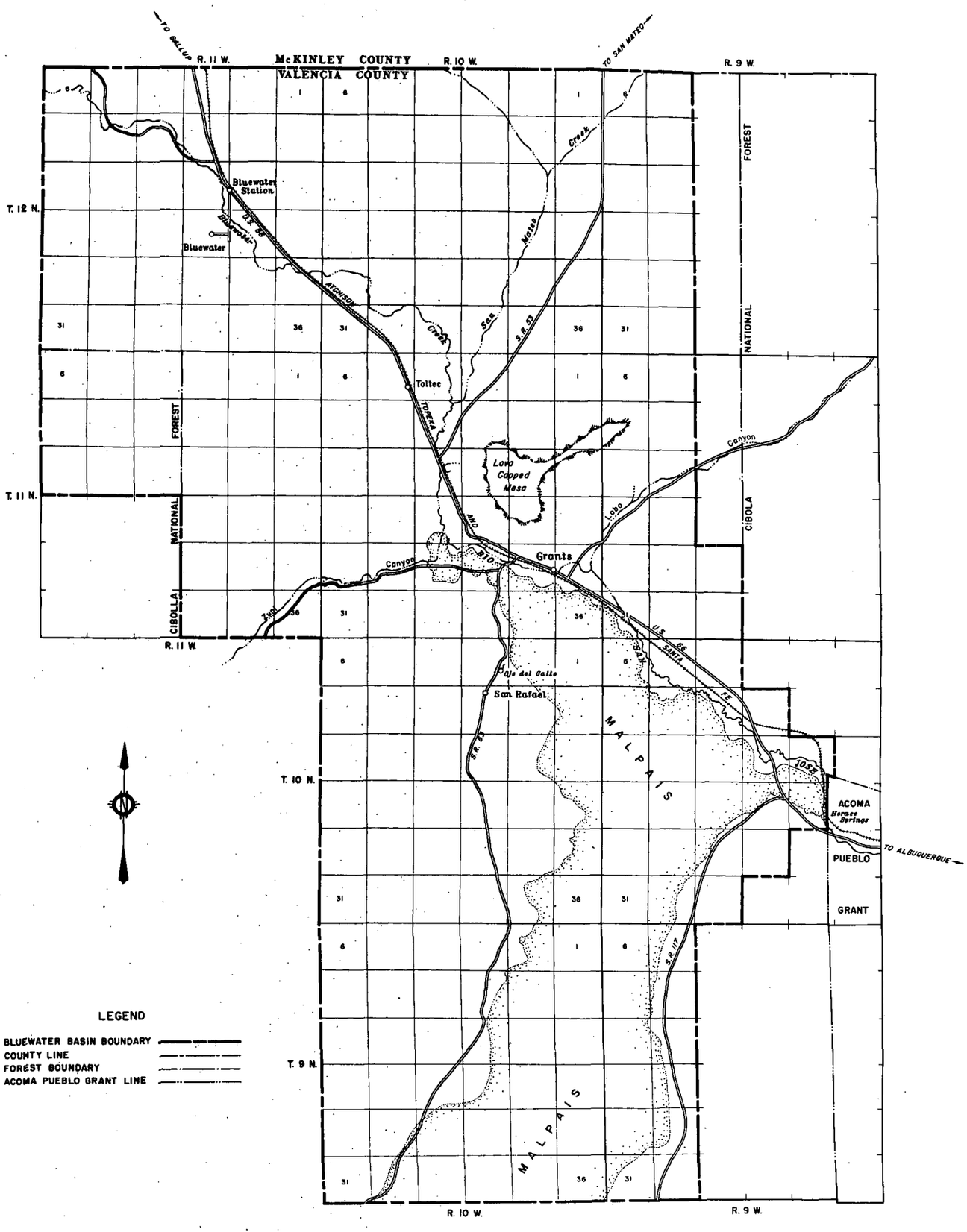
PLAYAS BASIN BOUNDARY — — —

NEW MEXICO ARIZONA STATE LINE ———·———

STATE OF NEW MEXICO STATE ENGINEER OFFICE S.E. REYNOLDS, STATE ENGINEER ANIMAS VALLEY UNDERGROUND WATER BASIN FEBRUARY 23, 1956		
DESIGNED DRAWN M.B.HUEY APPROVED	SHEET NO.	FILE NO.

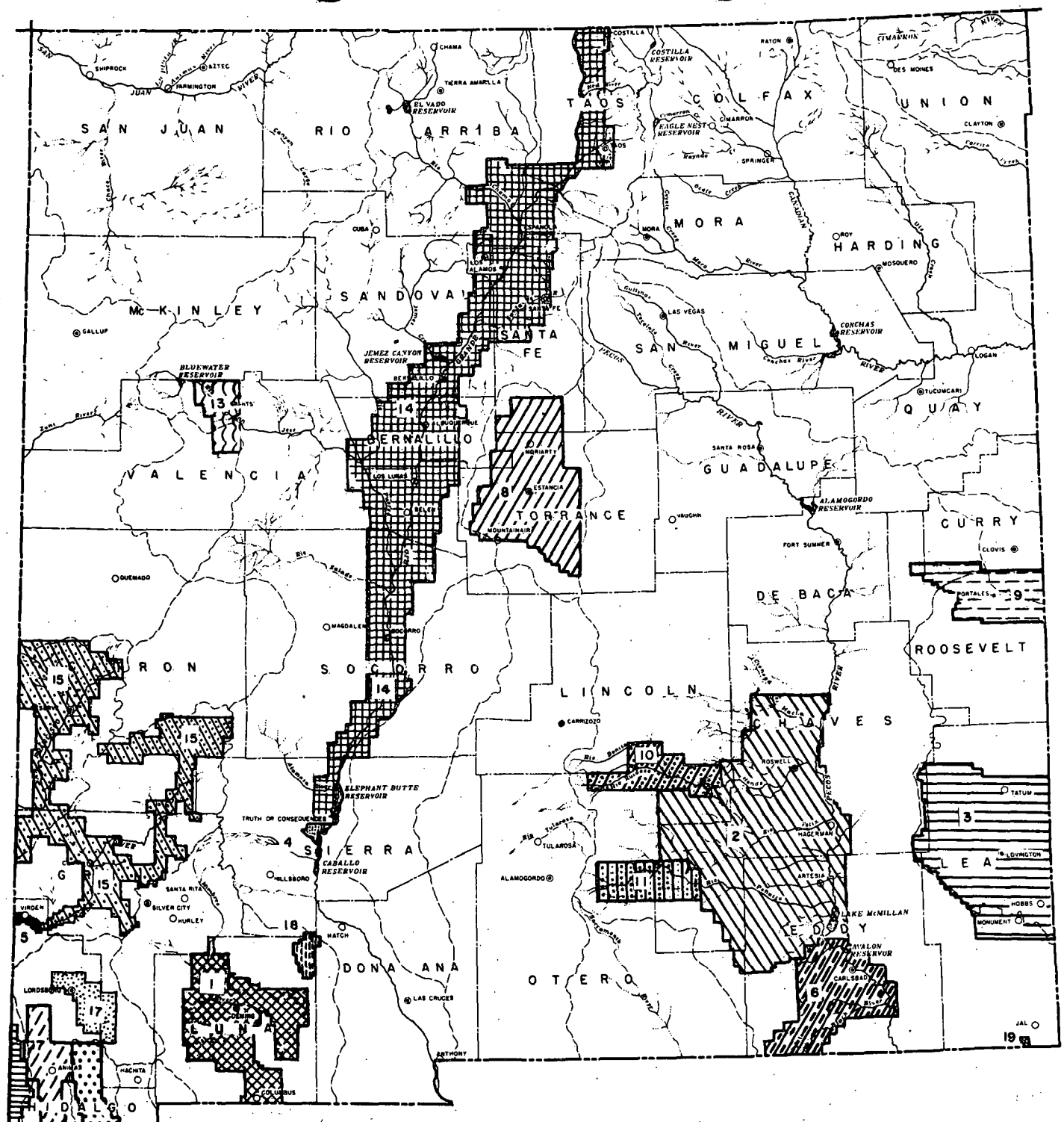
BLUEWATER UNDERGROUND WATER BASIN

May 21, 1956, Bluewater Underground Water Basin declared and closed to appropriations for irrigation, industrial, and municipal purposes.



STATE OF NEW MEXICO
STATE ENGINEER OFFICE
S.E. REYNOLDS, STATE ENGINEER
BLUEWATER UNDERGROUND WATER BASIN
MAY 21, 1956

DESIGNED	SHEET NO.	FILE NO.
DRAWN M.B. HUEY		
APPROVED		



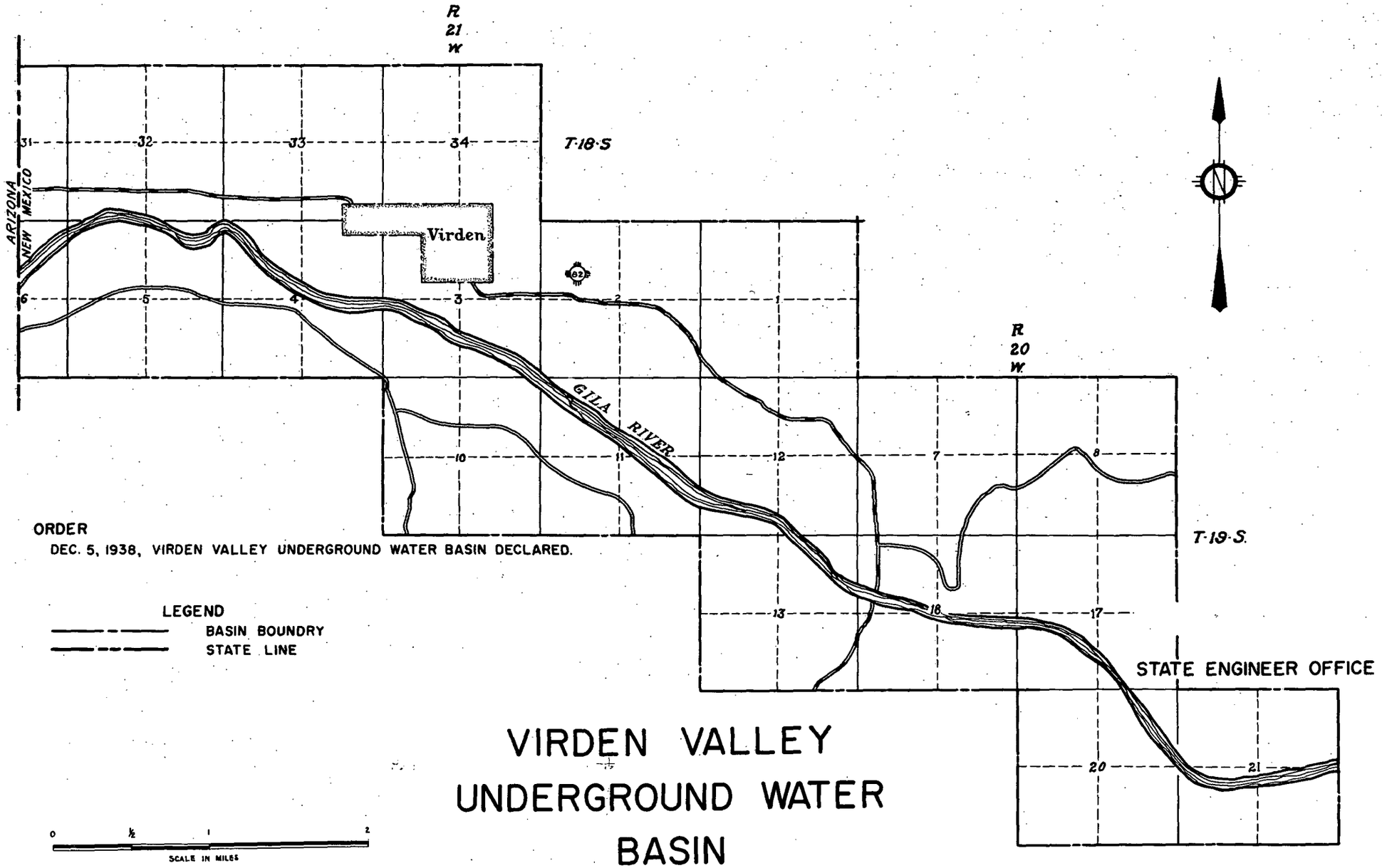
UNDERGROUND WATER BASINS

1. MIMBRES VALLEY
2. ROSWELL ARTESIAN
3. LEA COUNTY
4. HOT SPRINGS
5. VIRDEN VALLEY
6. CARLSBAD
7. ANIMAS VALLEY
8. ESTANCIA
9. PORTALES VALLEY
10. HONDO
11. PEÑASCO
12. PLAYAS VALLEY
13. BLUEWATER
14. RIO GRANDE
15. GILA - SAN FRANCISCO
16. SAN SIMON
17. LORDSBURG VALLEY
18. NUTT - HOCKETT
19. JAL

MAP SHOWING DECLARED UNDERGROUND WATER BASINS OF THE STATE ENGINEER OFFICE

10 0 10 30 50 70 90

SCALE IN MILES



ORDER

DEC. 5, 1938, VIRDEN VALLEY UNDERGROUND WATER BASIN DECLARED.

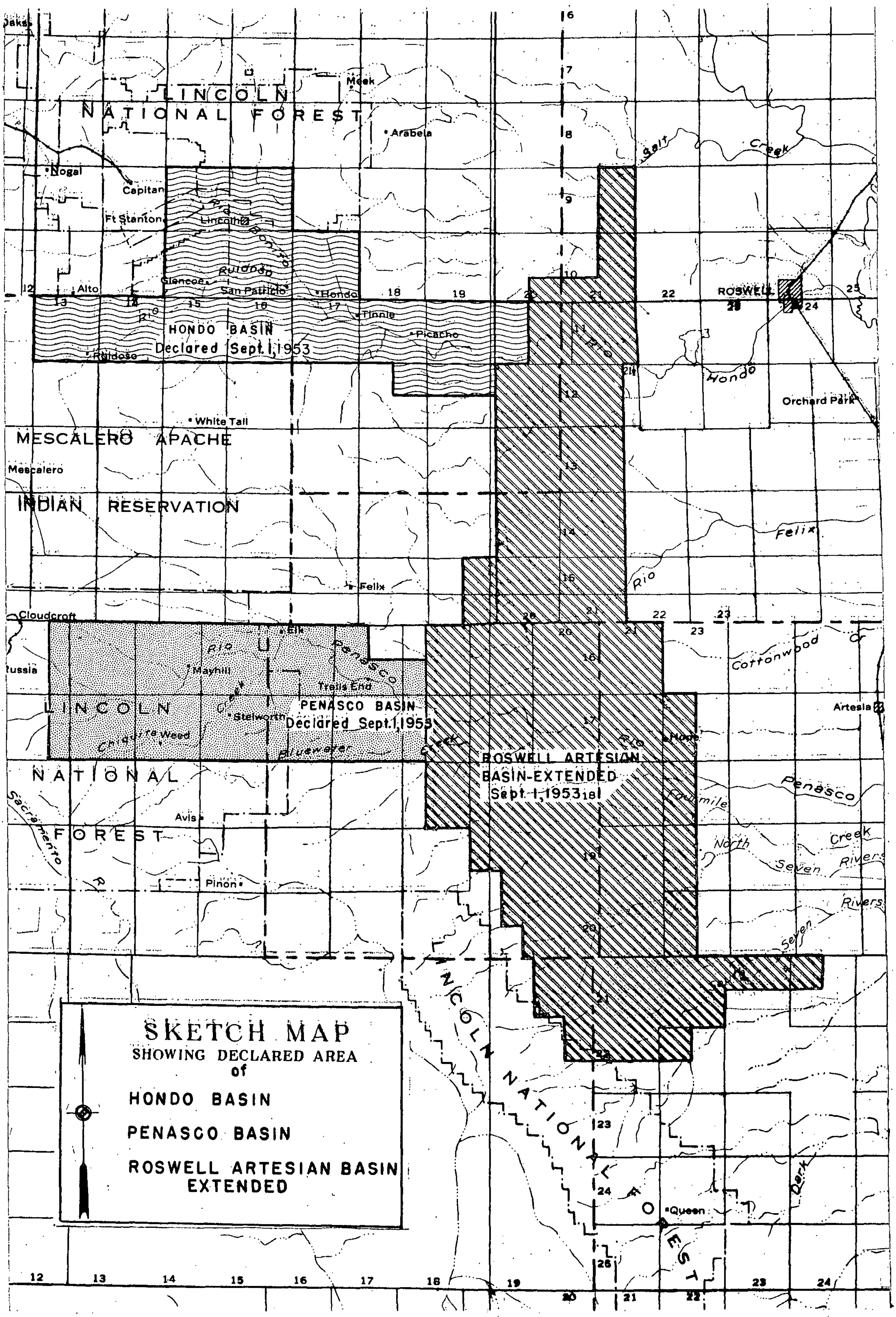
LEGEND

BASIN BOUNDRY

STATE LINE

STATE ENGINEER OFFICE

VIRDEN VALLEY UNDERGROUND WATER BASIN



SKETCH MAP
SHOWING DECLARED AREA
of
HONDO BASIN
PENASCO BASIN
ROSWELL ARTESIAN BASIN
EXTENDED
LINCOLN NATIONAL FOREST
HONDO BASIN
Declared Sept. 1, 1953
PENASCO BASIN
Declared Sept. 1, 1953
ROSWELL ARTESIAN
BASIN-EXTENDED
Sept. 1, 1953
MESCALERO APACHE
INDIAN RESERVATION
LINCOLN
NATIONAL
FOREST
ROSWELL
Capitan
Nogal
Ft Stanton
Lincoln
Glencoe
San Patricio
Hondo
Tinnie
Picacho
Ruidoso
Alto
Meek
Arabela
White Tail
Mescalero
Felix
Cloudcroft
Russia
Elk
Mayhill
Stelworth
Trails End
Avis
Pinon
Hope
Artesia
Orchard Park
Queen
Salt Creek
Rio Hondo
Rio Felix
Cottonwood Cr
Rio Penasco
Penasco
Fourmile
North Seven Rivers
Creek
Seven Rivers
Sacramento R
Chiquite Weed
Bluewater
Dark

DECLARATION OF EXTENSION OF THE UNDERGROUND WATER BASIN IN CHAVES AND EDDY COUNTIES KNOWN AS THE ROSWELL ARTESIAN BASIN, DECLARED SEPTEMBER 1, 1953, CLOSED SEPTEMBER 1, 1953

Twp.	Rge.	Sections*
9S	21E	1 to 3, 10 to 15 22 to 27, 34 to 36
10S	20E	25 to 27, 34 to 36
10S	21E	1 to 3, 10 to 15 22 to 36
11S	20E	1 to 3, 10 to 15 22 to 27, 34 to 36
11S	21E	All
12S	20E	All
12S	21E	All
13S	20E	All
13S	21E	All
14S	20E	All
14S	21E	All
15S	19E	1 to 3, 10 to 15 22 to 27, 34 to 36
15S	20E	All
15S	21E	All
16S	18E	1 to 4, 9 to 16 21 to 28, 33 to 36
16S	19E	All
16S	20E	All
16S	21E	All
17S	18E	1 to 4, 9 to 16 21 to 28, 33 to 36
17S	19E	All
17S	20E	All
17S	21E	All
17S	23E	4 to 9, 16 to 21 28 to 33
18S	18E	1 to 4, 9 to 16 21 to 28, 33 to 36
18S	19E	All
18S	20E	All
18S	21E	All
18S	23E	4 to 9, 16 to 21 28 to 33
19S	19E	1 to 27, 34 to 36
19S	20E	All
19S	21E	All
19S	23E	4 to 9, 16 to 21 28 to 33
20S	19E	1 to 3, 10 to 15 24, 25, 36
20S	20E	All
20S	21E	All
20S	23E	4 to 9, 16 to 21 28 to 33
20½S	20E	All
20½S	21E	All
20½S	22E	All
20½S	23E	All
21S	20E	1 to 30, 34 to 36
21S	21E	All
21S	22E	All
21S	23E	1 to 18
21S	24E	4 to 9, 16 to 18
22S	20E	1 to 3, 10 to 15
22S	21E	1 to 18
22S	22E	4 to 9, 16 to 18

DECLARATION OF THE HONDO UNDERGROUND WATER BASIN IN LINCOLN COUNTY, NEW MEXICO, DECLARED SEPTEMBER 1, 1953

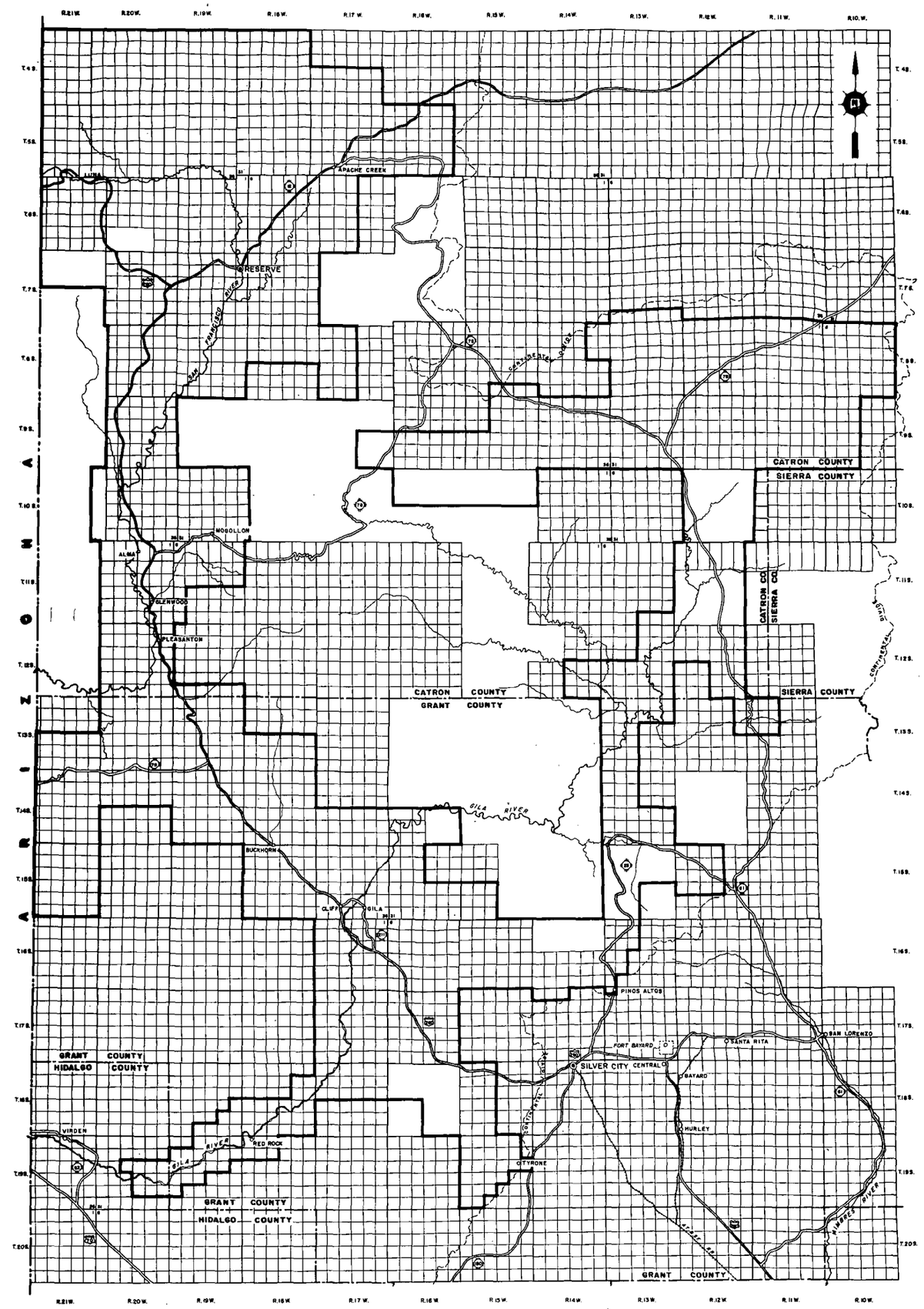
Twp.	Rge.	Sections
9S	15E	All
9S	16E	All
10S	15E	All
10S	16E	All
10S	17E	All
11S	13E	All
11S	14E	All
11S	15E	All
11S	16E	All
11S	17E	All
11S	18E	All
11S	19E	All
11S	20E	4 to 9, 16 to 21, 28 to 33
12S	18E	1 to 3, 10 to 15
12S	19E	1 to 18

DECLARATION OF THE PENASCO UNDERGROUND WATER BASIN IN OTERO AND CHAVES COUNTIES, NEW MEXICO, DECLARED SEPTEMBER 1, 1953

Twp.	Rge.	Sections
16S	12E	1, 2, 11 to 14, 23 to 26, 35, 36
16S	13E	All
16S	14E	All
16S	15E	All
16S	16E	All
16S	17E	4 to 9, 16 to 36
16S	18E	19 to 20, 29 to 32
17S	12E	1, 2, 11 to 14, 23 to 26 35, 36
17S	13E	All
17S	14E	All
17S	15E	All
17S	16E	All
17S	17E	All
17S	18E	5 to 8, 17 to 20 29 to 32

*All sections are inclusive.

GILA • SAN FRANCISCO
UNDERGROUND WATER BASIN



LEGEND

- BASIN BOUNDARY
- STATE LINE
- COUNTY LINE
- FEDERAL OR STATE ROAD
- CONTINENTAL DIVIDE
- ○ CITY OR TOWN
- ◉ COUNTY SEAT

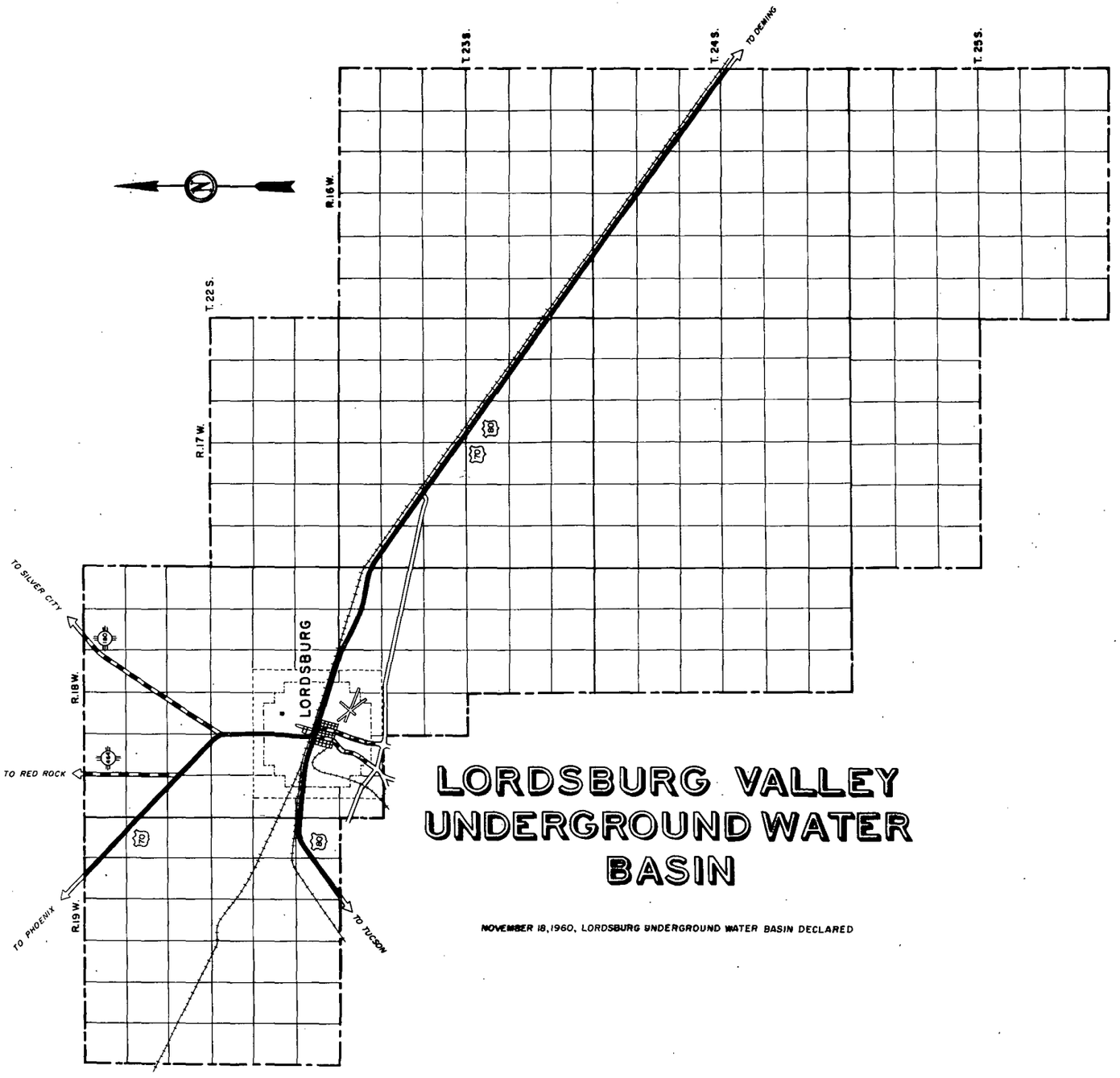
6 5 4 3 2 1 0 1 2 3 4 5 6
SCALE IN MILES

STATE OF NEW MEXICO
STATE ENGINEER OFFICE
S.E. REYNOLDS, STATE ENGINEER

GILA·SAN FRANCISCO
UNDERGROUND WATER BASIN

OCTOBER 20, — 1960

BASE U.S.G.S. QUAD SHEETS	SHEET NO.	FILE NO.
TRACED E. L. GONZALES		
APPROVED		



LORDSBURG VALLEY UNDERGROUND WATER BASIN

NOVEMBER 18, 1960, LORDSBURG UNDERGROUND WATER BASIN DECLARED

BASIN BOUNDARY

1 0 1 mi.

SCALE 1/80,000

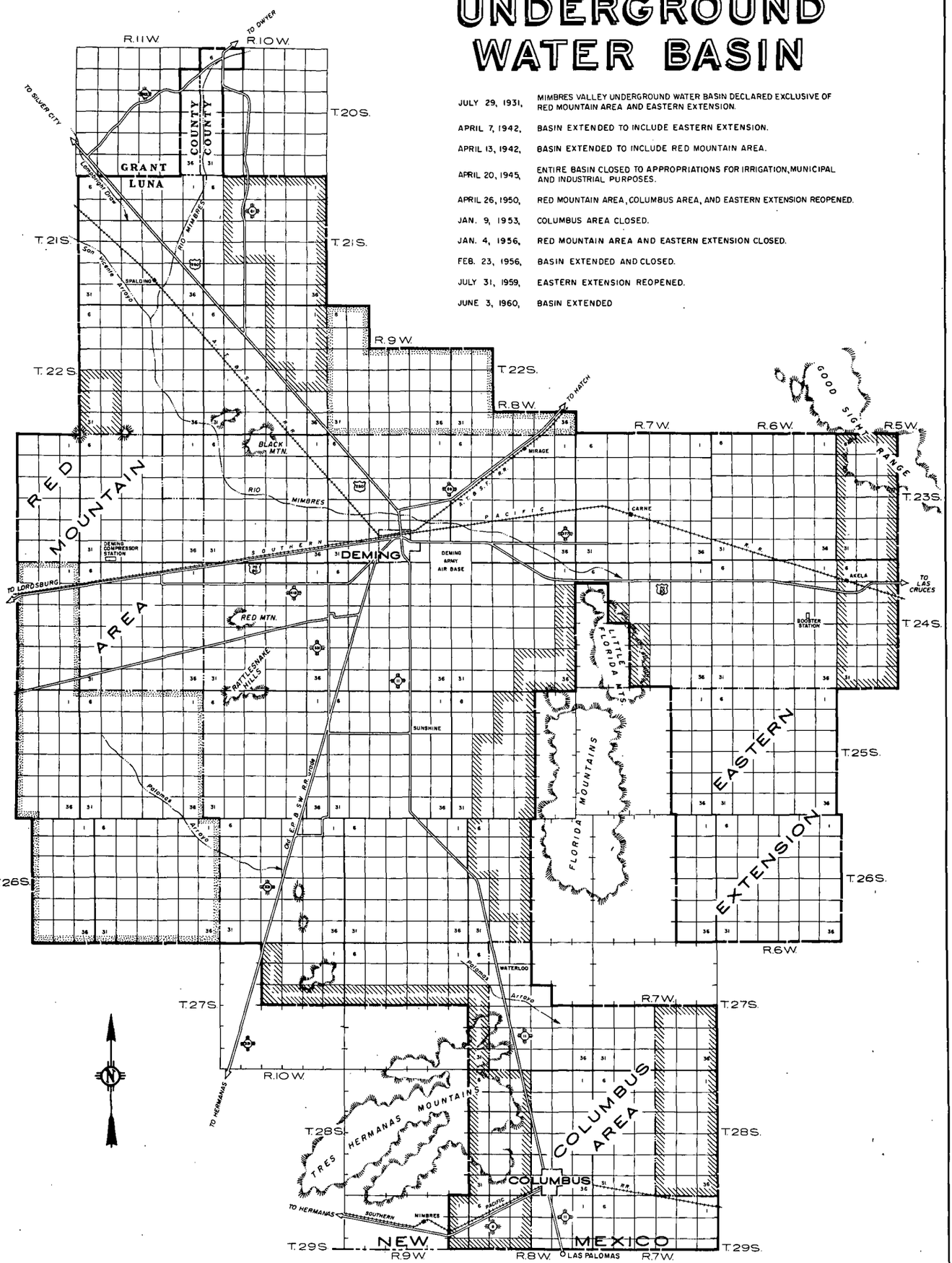
STATE OF NEW MEXICO
STATE ENGINEER OFFICE
LORDSBURG
UNDERGROUND WATER BASIN
HIDALGO COUNTY, NEW MEXICO

DATE - DECEMBER 1960

DESIGNED	SHEET NO.	FILE NO.
DRAWN BY M.H. BOYCE	KEY MAP	
APPROVED		

MIMBRES VALLEY UNDERGROUND WATER BASIN

JULY 29, 1931,	MIMBRES VALLEY UNDERGROUND WATER BASIN DECLARED EXCLUSIVE OF RED MOUNTAIN AREA AND EASTERN EXTENSION.
APRIL 7, 1942,	BASIN EXTENDED TO INCLUDE EASTERN EXTENSION.
APRIL 13, 1942,	BASIN EXTENDED TO INCLUDE RED MOUNTAIN AREA.
APRIL 20, 1945,	ENTIRE BASIN CLOSED TO APPROPRIATIONS FOR IRRIGATION, MUNICIPAL AND INDUSTRIAL PURPOSES.
APRIL 26, 1950,	RED MOUNTAIN AREA, COLUMBUS AREA, AND EASTERN EXTENSION REOPENED.
JAN. 9, 1953,	COLUMBUS AREA CLOSED.
JAN. 4, 1956,	RED MOUNTAIN AREA AND EASTERN EXTENSION CLOSED.
FEB. 23, 1956,	BASIN EXTENDED AND CLOSED.
JULY 31, 1959,	EASTERN EXTENSION REOPENED.
JUNE 3, 1960,	BASIN EXTENDED



LEGEND

- MIMBRES VALLEY UNDERGROUND WATER BASIN BOUNDARY.
- EXTENSION BOUNDARIES
- AREAS INCLUDED IN FEB. 23, 1956 EXTENSION
- AREAS INCLUDED IN JUNE 3, 1960 EXTENSION

SCALE IN MILES: 1 0 1 2 4 6

STATE OF NEW MEXICO
STATE ENGINEER OFFICE
S. E. REYNOLDS, STATE ENGINEER

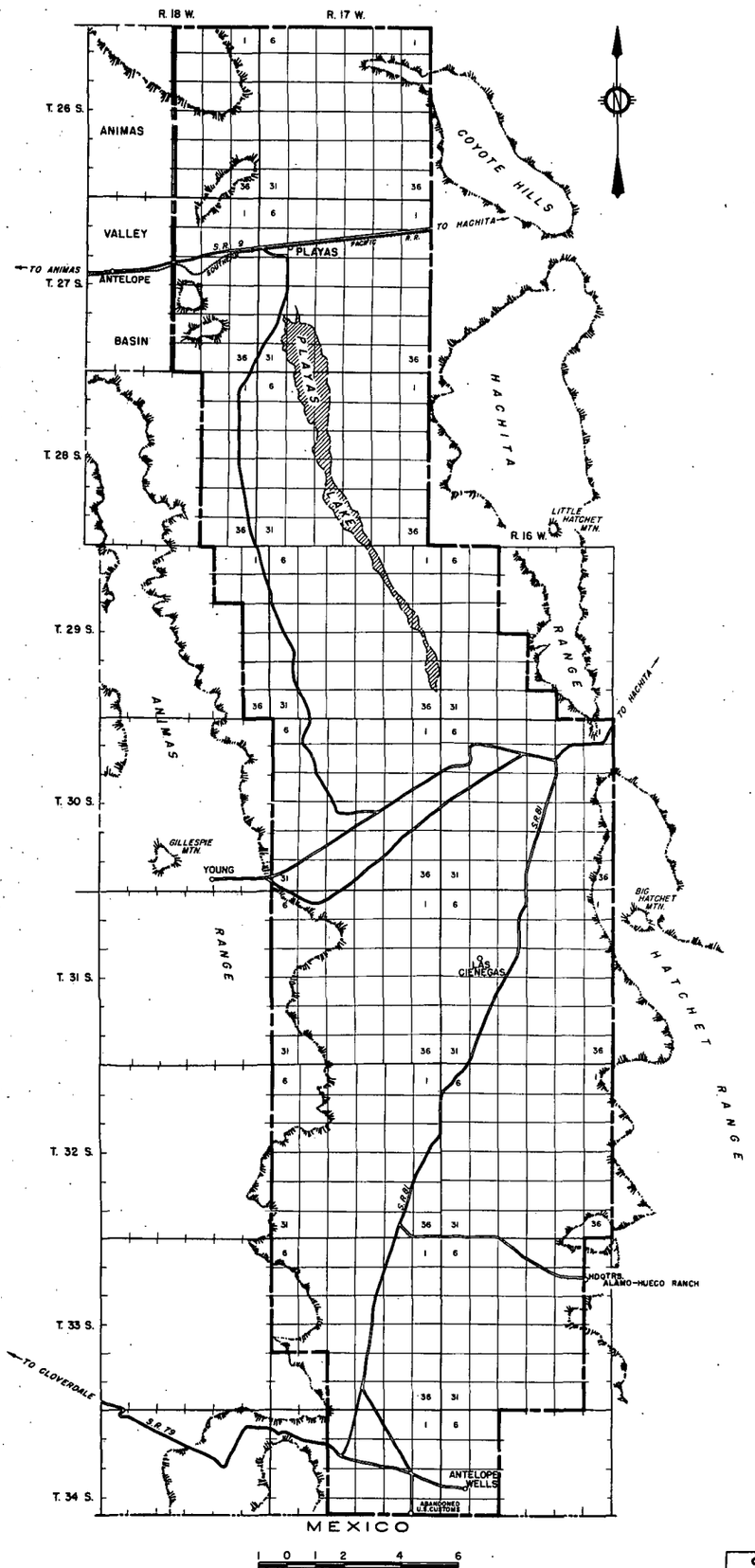
MIMBRES VALLEY UNDERGROUND WATER BASIN

MAY 10, 1960

DESIGNED BY	SHEET NO.	FILE NO.
DRAWN BY MARY H. BOYCE		
APPROVED		

PLAYAS VALLEY
UNDERGROUND WATER BASIN

February 23, 1956, Playas Valley Underground Water Basin declared

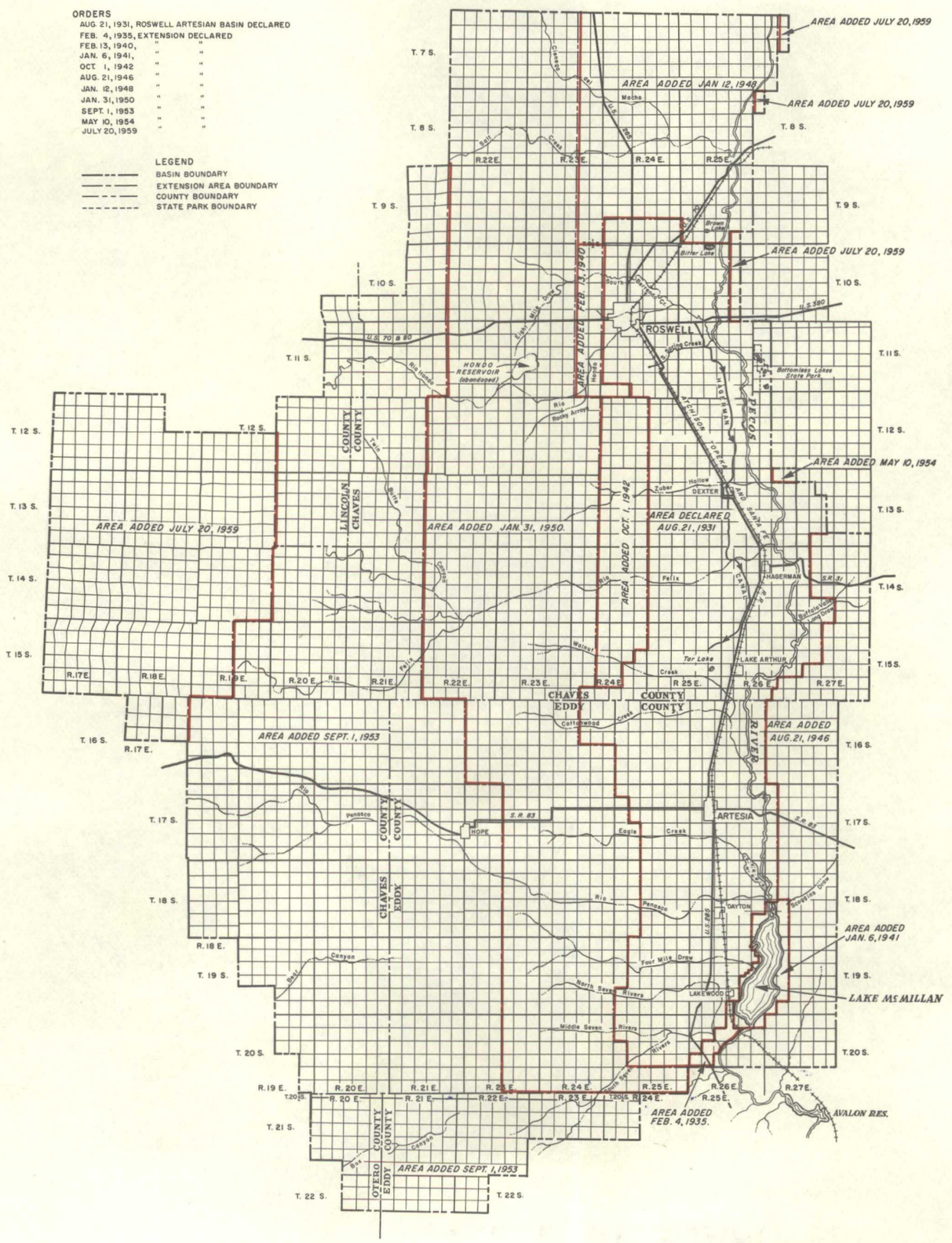


LEGEND

PLAYAS BASIN BOUNDARY
ANIMAS BASIN BOUNDARY
INTERNATIONAL BOUNDARY

STATE OF NEW MEXICO
STATE ENGINEER OFFICE
S.E. REYNOLDS, STATE ENGINEER
PLAYAS VALLEY
UNDERGROUND WATER BASIN
FEBRUARY 23, 1956

DESIGNED	SHEET NO.	FILE NO.
DRAWN M.B.HUEY		
APPROVED		



MAP

SHOWING DECLARED AREA

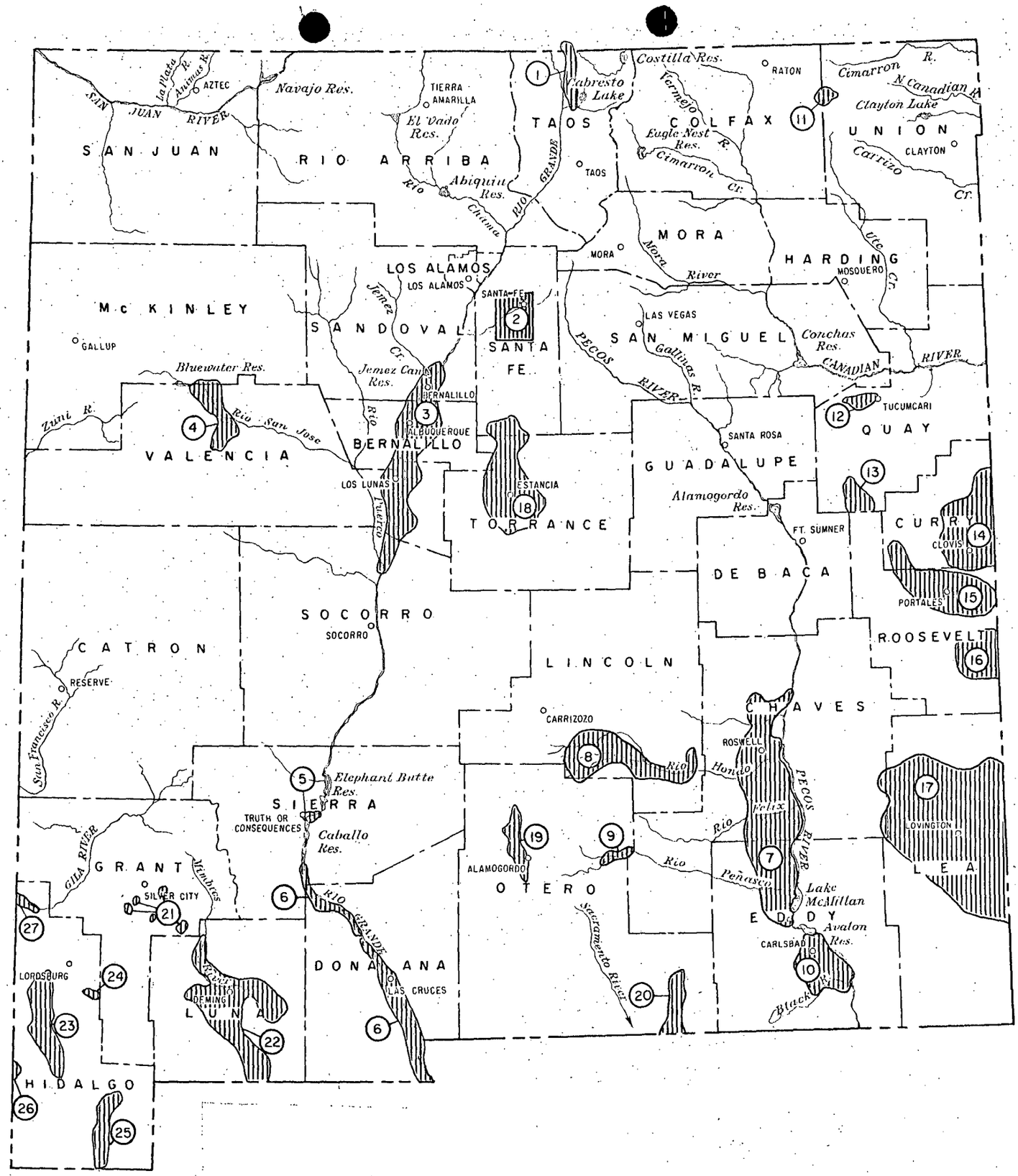
ROSWELL ARTESIAN BASIN

STATE OF NEW MEXICO
STATE ENGINEER OFFICE
S.E. REYNOLDS, STATE ENGINEER

ROSWELL ARTESIAN BASIN

DATE JULY 20, 1959

TRACED M.H. BOYCE APPROVED	SHEET NO.	FILE NO.



1. SUNSHINE VALLEY, TAOS COUNTY (1956)*
2. SANTA FE AREA, SANTA FE COUNTY. (1959)
3. MIDDLE RIO GRANDE VALLEY, SANDOVAL, BERNALILLO, VALENCIA, AND SOCORRO COUNTIES. (1956)
4. GRANTS - BLUEWATER AREA, VALENCIA COUNTY. (1946)
5. HOT SPRINGS AREA, SIERRA COUNTY. (1939)
6. RINCON-MESILLA VALLEY, DOÑA ANA AND SIERRA COUNTIES. (1957)
7. ROSWELL BASIN, CHAVES AND EDDY COUNTIES. (1925)
8. HONDO VALLEY, LINCOLN COUNTY. (1956)
9. PEÑASCO VALLEY, OTERO AND CHAVES COUNTIES. (1955)
10. CARLSBAD AREA, EDDY COUNTY. (1942)
11. CAPULIN AREA, UNION COUNTY (1957)
12. TUCUMCARI AREA, QUAY COUNTY (1953)
13. HOUSE AREA, QUAY COUNTY (1940)
14. CLOVIS AREA, CURRY COUNTY (1954)
15. PORTALES VALLEY, ROOSEVELT COUNTY (1931)
16. CAUSEY-LINGO AREA, ROOSEVELT COUNTY (1957)
17. TATUM-LOVINGTON-HOBBS AREA, LEA COUNTY (1929)
18. ESTANCIA VALLEY, TORRANCE AND SANTA FE COUNTIES (1941)
19. TULAROSA-ALAMOGORDO AREA, OTERO COUNTY (1952)
20. CROW FLATS AREA, OTERO COUNTY (1956)
21. AREAS IN GRANT COUNTY (1943)
22. MIMBRES VALLEY, LUNA COUNTY (1927)
23. ANIMAS VALLEY, HIDALGO COUNTY (1948)
24. LORDSBURG VALLEY, HIDALGO COUNTY (1956)
25. PLAYAS VALLEY, HIDALGO COUNTY (1948)
26. RODEO AREA, HIDALGO COUNTY (1958)
27. VIRDEN VALLEY, HIDALGO COUNTY. (1939)

* NUMBERS IN PARENTHESES REFER TO YEAR OBSERVATION PROGRAM WAS STARTED

AREAS OF OBSERVATION OF WATER LEVELS

BY THE
U. S. GEOLOGICAL SURVEY

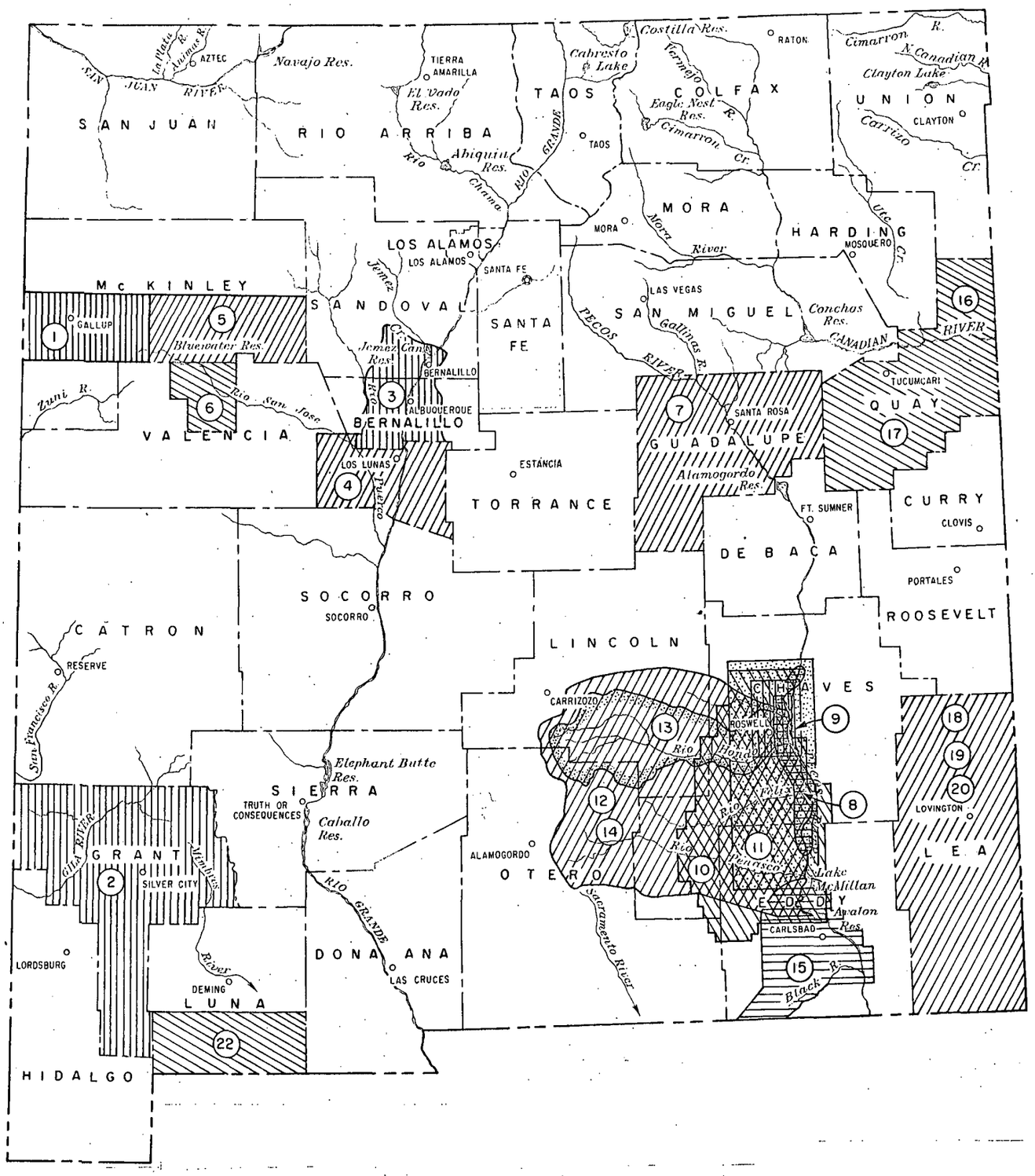
UNDER COOPERATIVE AGREEMENT
WITH THE STATE ENGINEER

1958-1960

STATE ENGINEER OFFICE

DRAWN BY A. BACIGALUPA
JUNE 1960

0 5 10 20 30 40 50
SCALE IN MILES



DESCRIPTION OF PROGRAMS

LOWER COLORADO RIVER BASIN

1. GALLUP AREA, MCKINLEY COUNTY: GEOLOGY AND GROUND-WATER CONDITIONS.
2. GRANT COUNTY: GEOLOGY AND GROUND-WATER CONDITIONS.

RIO GRANDE BASIN

3. ALBUQUERQUE AREA, BERNALILLO AND SANDOVAL COUNTIES: GEOLOGY AND GROUND-WATER RESOURCES.
4. EASTERN VALENCIA COUNTY: GROUND-WATER CONDITIONS AND GEOLOGY.
5. SOUTHEASTERN MCKINLEY COUNTY: GROUND-WATER OCCURRENCE AND GEOLOGY.
6. GRANTS-BLUEWATER AREA, VALENCIA COUNTY: GEOLOGY AND GROUND-WATER CONDITIONS.

PECOS RIVER BASIN

7. GUADALUPE COUNTY: GEOLOGY AND WATER RESOURCES.
8. ROSWELL BASIN, CHAVES AND EDDY COUNTIES: APPRAISAL OF POTENTIAL GROUND-WATER SALVAGE ALONG THE PECOS RIVER BETWEEN ACME AND ARTESIA.
9. ROSWELL BASIN, CHAVES COUNTY: OCCURRENCE OF SALINE WATER EAST OF ROSWELL (STATE ENGINEER TECHNICAL REPORT 17, JUNE 1960).
10. ROSWELL BASIN, CHAVES AND EDDY COUNTIES: EVALUATION OF PUMPAGE (OPEN-FILE REPORT, JUNE 1960, FOR PUBLICATION BY STATE ENGINEER).
11. ROSWELL BASIN, CHAVES AND EDDY COUNTIES: SALINE GROUND-WATER CONDITIONS (OPEN-FILE REPORT, MAY 1960).
12. ROSWELL BASIN: RECHARGE STUDY.
13. HONDO VALLEY, LINCOLN COUNTY: WATER RESOURCES.
14. ROSWELL BASIN: TRITIUM STUDY.
15. CARLSBAD AREA, EDDY COUNTY: GEOLOGY AND WATER RESOURCES (OPEN-FILE REPORT, DEC. 1959, TO BE PUBLISHED BY U.S. GEOLOGICAL SURVEY).
16. QUAY COUNTY: GEOLOGY AND GROUND-WATER CONDITIONS.
17. QUAY COUNTY: GROUND-WATER CONDITIONS IN STRUCTURAL BASINS WEST OF TUCUMCARI.
18. NORTHERN LEA COUNTY: PROGRESS REPORT ON GROUND-WATER RESOURCES.
19. NORTHERN LEA COUNTY: HYDROLOGIC ATLAS.
20. NORTHERN LEA COUNTY: RECHARGE STUDY.
21. SOUTHERN LEA COUNTY: GEOLOGY AND GROUND-WATER CONDITIONS.

CLOSED BASINS

22. SOUTHERN LUNA COUNTY: PROGRESS REPORT ON GROUND-WATER RESOURCES.

GROUND-WATER INVESTIGATIONS

BY THE
U. S. GEOLOGICAL SURVEY

UNDER COOPERATIVE AGREEMENTS WHEREIN THE STATE ENGINEER IS A PARTY

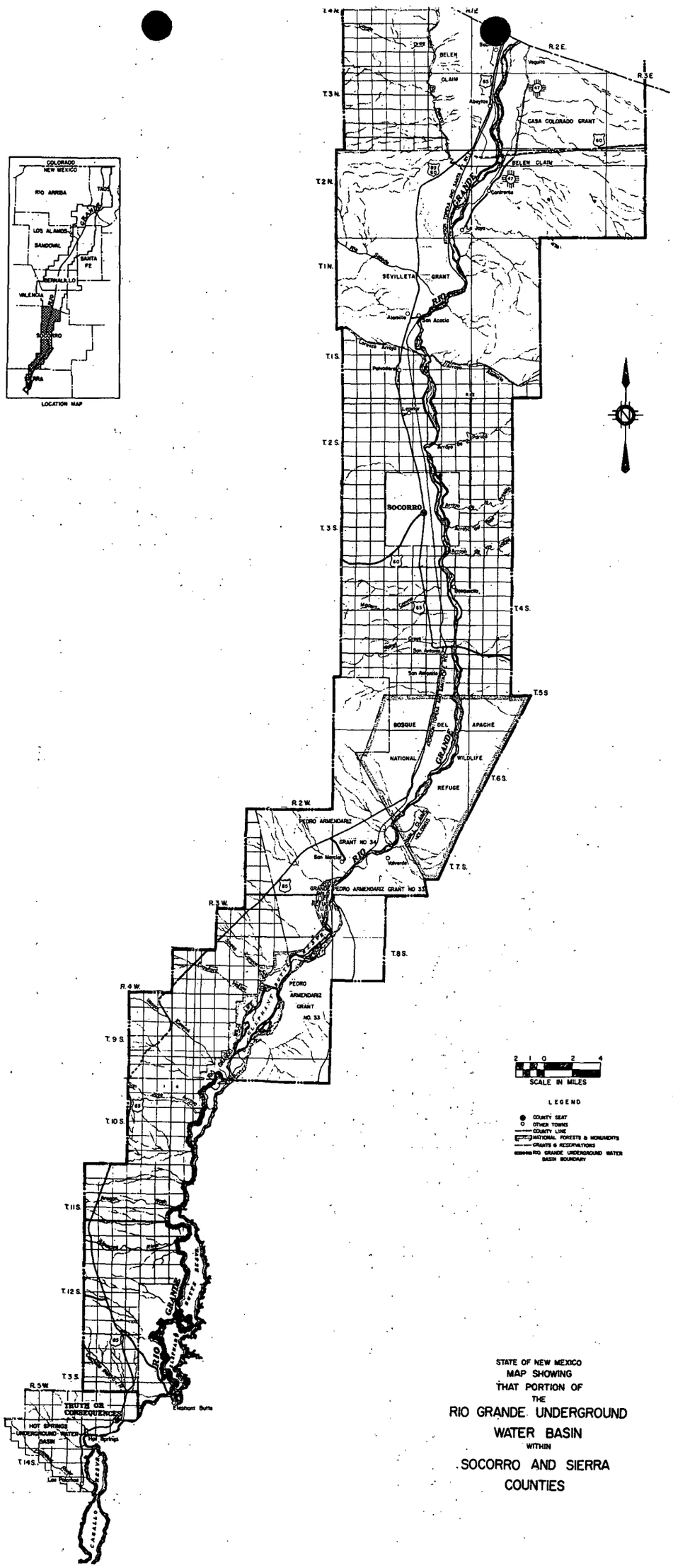
1958-1960

STATE ENGINEER OFFICE

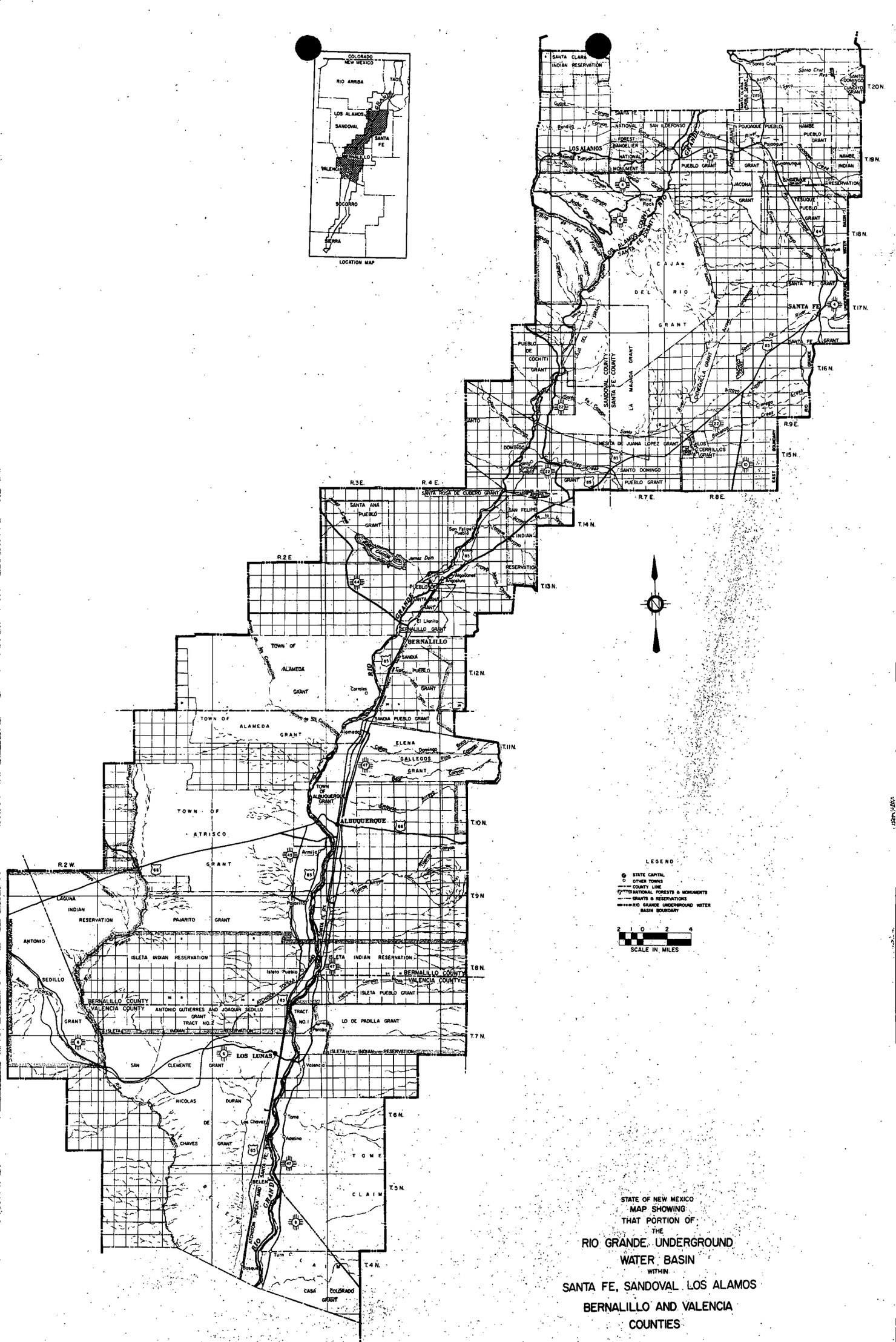
DRAWN BY M.H. BOYCE

JUNE 1960

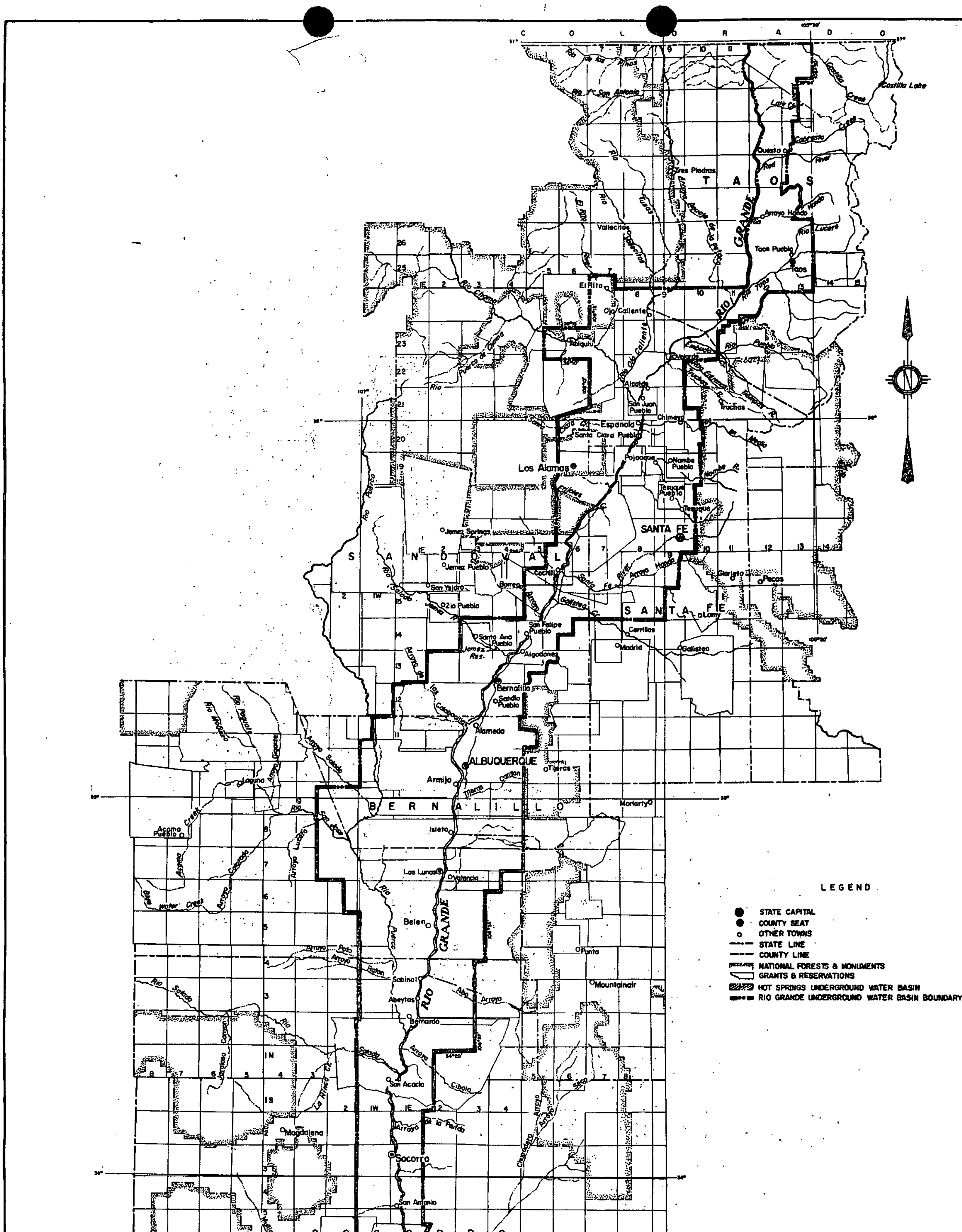
0 5 10 20 30 40 50
SCALE IN MILES



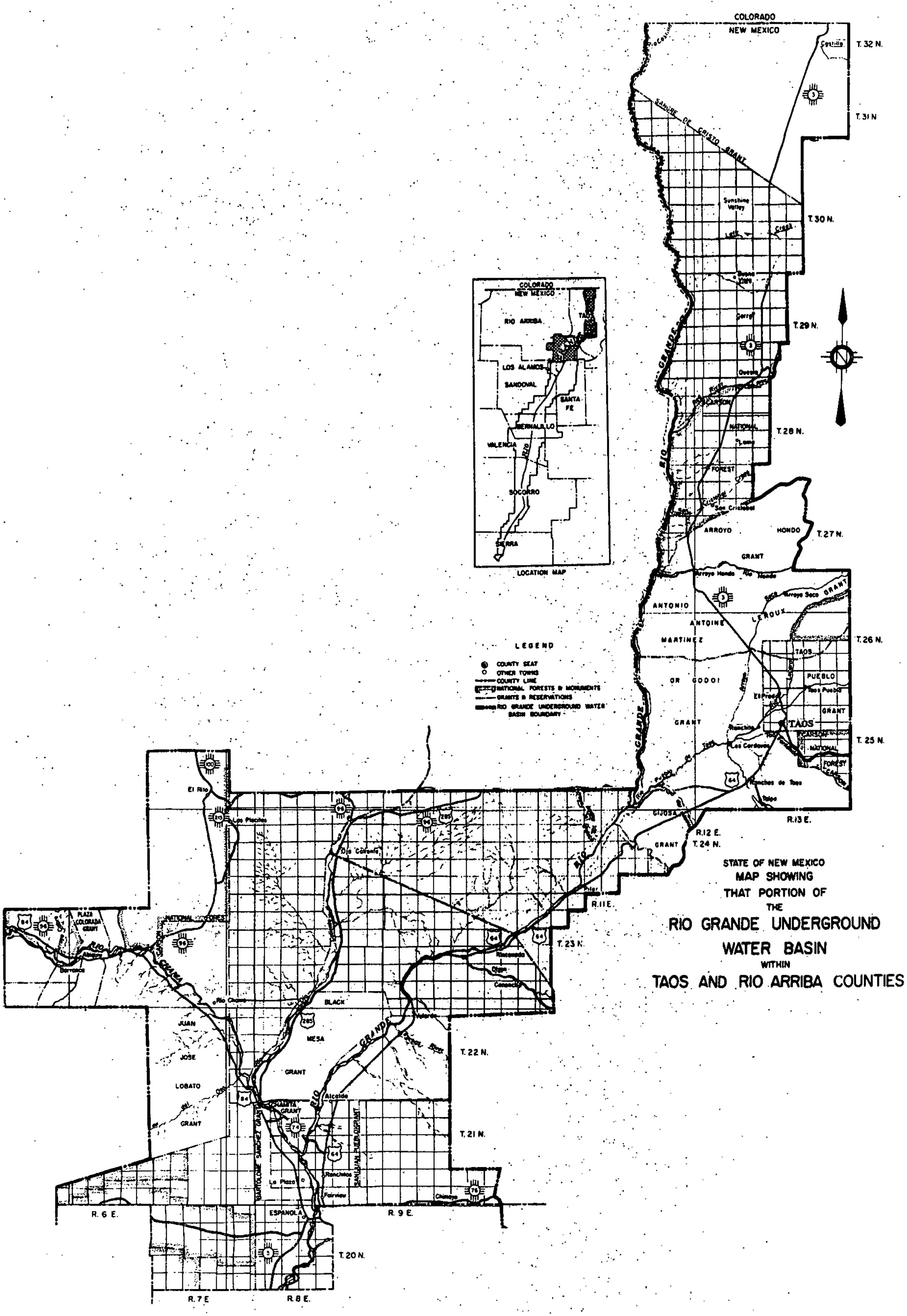
STATE OF NEW MEXICO
MAP SHOWING
THAT PORTION OF
THE
RIO GRANDE UNDERGROUND WATER BASIN
WITHIN
SOCORRO AND SIERRA
COUNTIES



STATE OF NEW MEXICO
MAP SHOWING
THAT PORTION OF
THE
RIO GRANDE UNDERGROUND
WATER BASIN
WITHIN
SANTA FE, SANDOVAL, LOS ALAMOS
BERNALILLO AND VALENCIA
COUNTIES

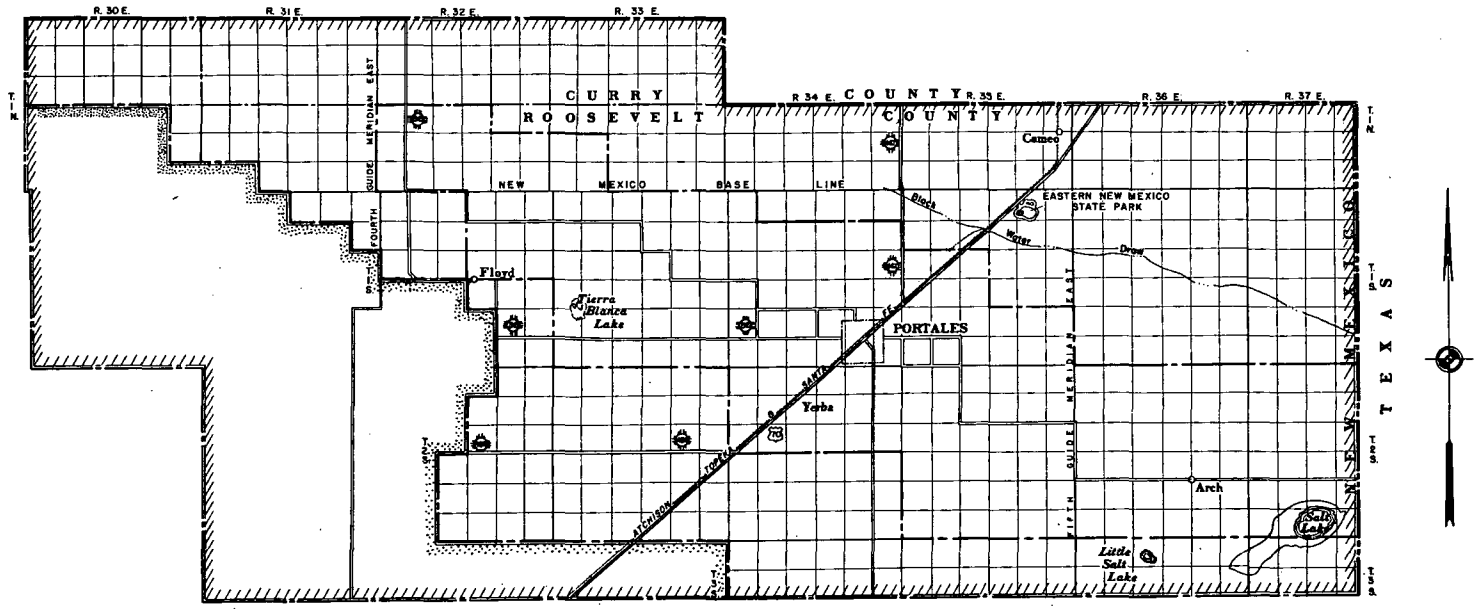


STATE OF NEW MEXICO
STATE ENGINEER OFFICE
S. E. REYNOLDS, STATE ENGINEER
RIO GRANDE UNDERGROUND WATER BASIN
GENERAL MAP
DRAWN HARLAN LIZER
TRACED DREW BACIGALUPA
APPROVED
SHEET NO. GENERAL MAP
FILE NO.
BASIN DECLARED NOVEMBER 29, 1956
LEGEND
STATE CAPITAL
COUNTY SEAT
OTHER TOWNS
STATE LINE
COUNTY LINE
NATIONAL FORESTS & MONUMENTS
GRANTS & RESERVATIONS
HOT SPRINGS UNDERGROUND WATER BASIN
RIO GRANDE UNDERGROUND WATER BASIN BOUNDARY
SCALE IN MILES
BASE MAP BY U.S. GEOLOGICAL SURVEY
COLORADO
TAOS
SANDOVAL
SANTA FE
BERNALILLO
SOCORRO
SIERRA
RIO GRANDE
Questa
Arroyo Hondo
Taos Pueblo
Taos
Tres Piedras
Vallecitos
El Rito
Ojo Caliente
Abiquiu
Alcalde
San Juan Pueblo
Chimayo
Truchas
Espanola
Santa Clara Pueblo
Pojoaque
Nambe Pueblo
Los Alamos
Tesuque Pueblo
Tesuque
SANTA FE
Glorieta
Pecos
Lamy
Cerrillos
Madrid
Galisteo
Jemez Springs
Jemez Pueblo
San Ysidro
Zia Pueblo
Cochiti
Bernalillo
Santa Ana Pueblo
San Felipe Pueblo
Algodones
Sandia Pueblo
Alameda
ALBUQUERQUE
Tijeras
Armijo
Moriarty
Isleta
Los Lunas
Valencia
Belen
Punta
Sabinal
Mountainair
Abeytas
Bernardo
San Acacia
Magdalena
Socorro
San Antonio
San Marcial
Crawford
Nogal
Monticello
Hermosa
Truth or Consequences
Elephant Butte
ELEPHANT BUTTE RES.
Hot Springs Basin
Laguna
Acoma Pueblo
Costilla Lake
Jemez Res.



STATE OF NEW MEXICO
MAP SHOWING
THAT PORTION OF
THE
RIO GRANDE UNDERGROUND
WATER BASIN
WITHIN
TAOS AND RIO ARRIBA COUNTIES

MAP SHOWING
DECLARED AREA
PORTALES
UNDERGROUND WATER BASIN



ORDERS

MAY 1, 1950, PORTALES UNDERGROUND WATER BASIN DECLARED.
JULY 18, 1955, EXTENSION DECLARED.
NOV. 3, 1955, BOUNDARIES REVISED

LEGEND

- STATE LINE
- COUNTY BOUNDARY
- ORIGINAL BASIN BOUNDARY
- EXTENDED BASIN BOUNDARY
- REVISED BASIN BOUNDARY

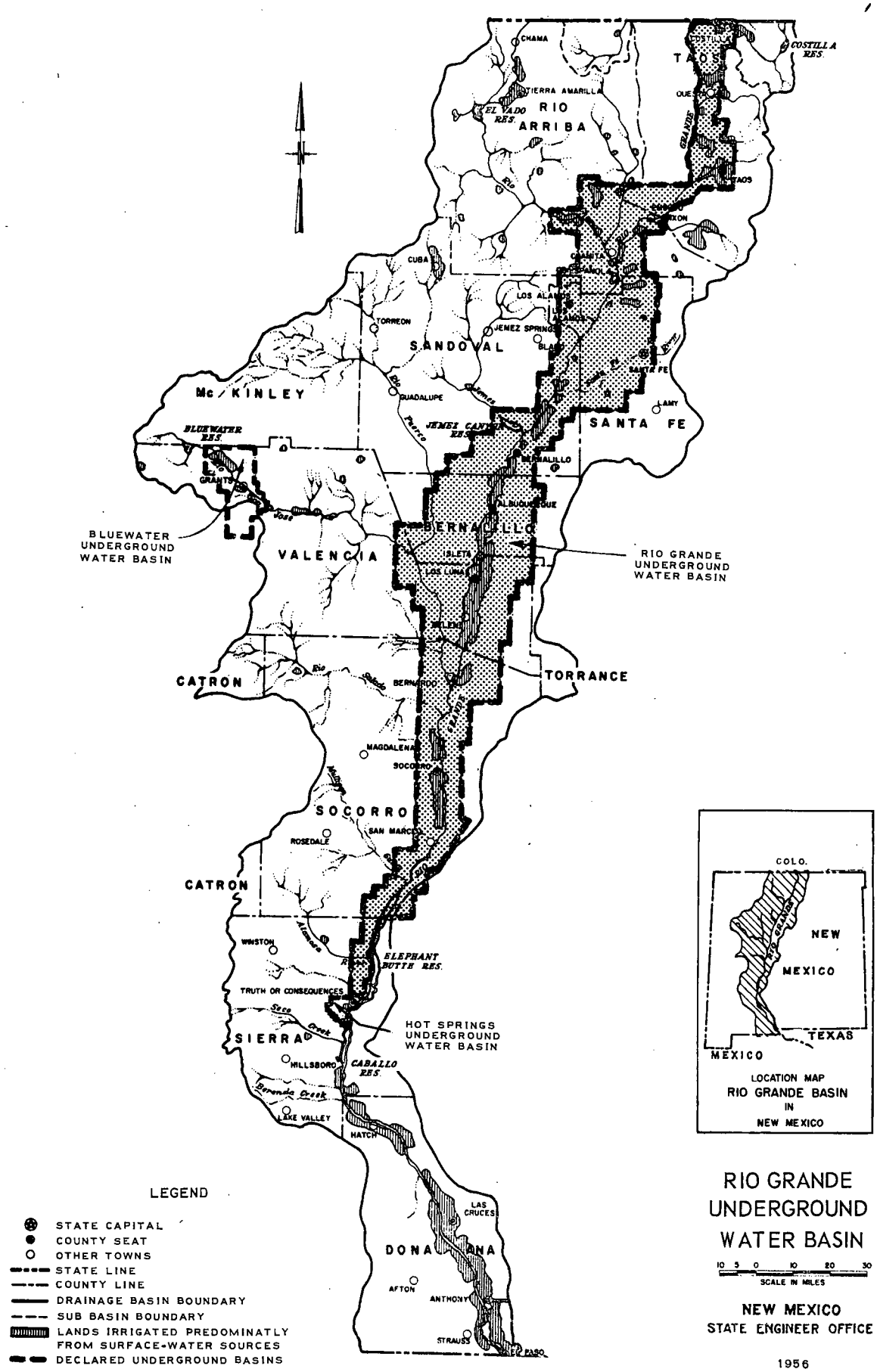
BASE MAP: HIGHWAY PLANNING SURVEY — ROOSEVELT COUNTY — 1950

STATE OF NEW MEXICO
OFFICE OF STATE ENGINEER
S.E. REYNOLDS, STATE ENGINEER
PORTALES
UNDERGROUND WATER BASIN

SCALE: 1 INCH = 2 MILES

SHEET NO. | FILE NO.

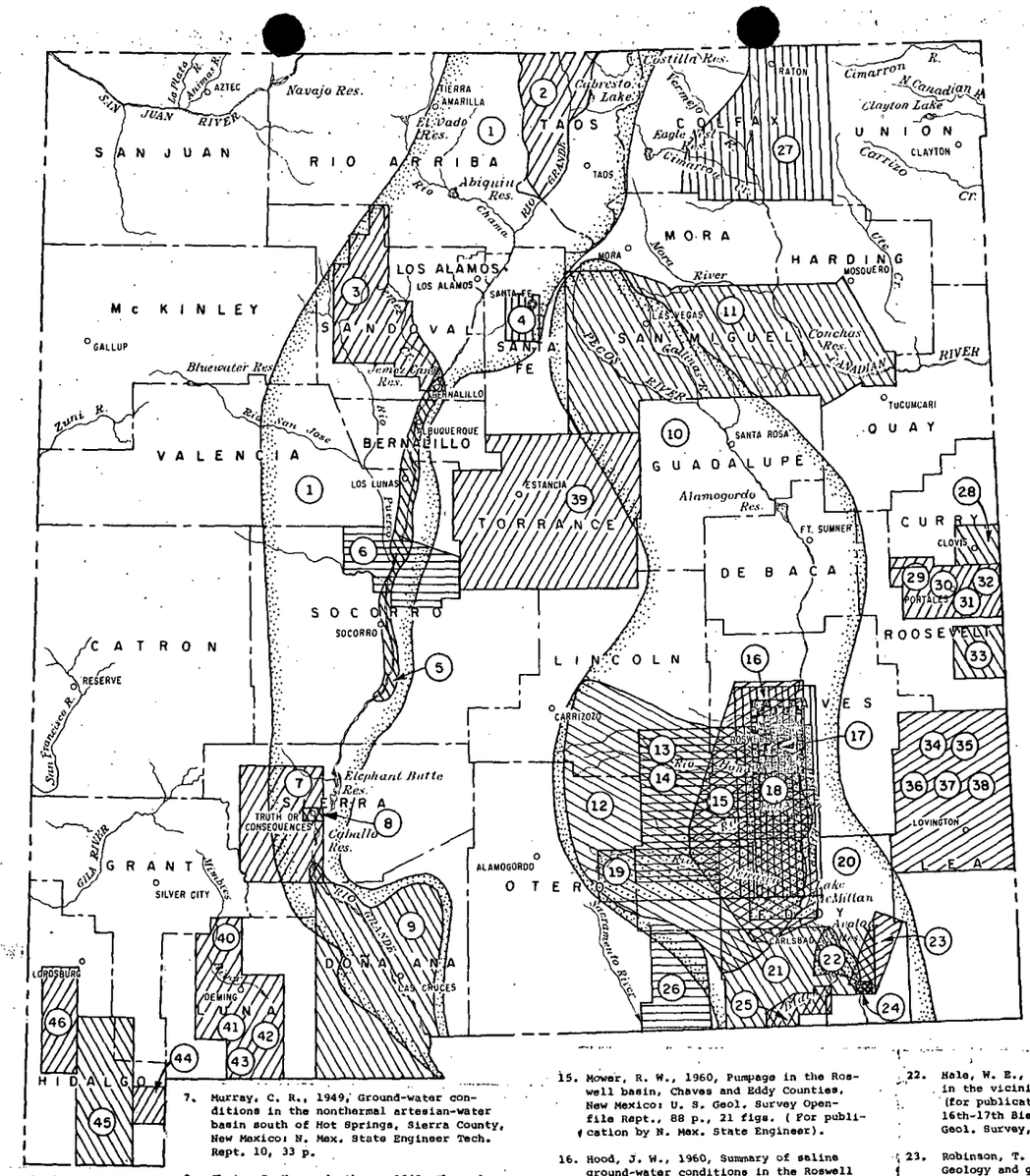
DRAWN: M.B.HUEY AUGUST 1955



RIO GRANDE UNDERGROUND WATER BASIN

NEW MEXICO
STATE ENGINEER OFFICE

1956



1. Natl. Resources Comm., 1938, Regional planning, pt. VI, The Rio Grande joint investigation in the upper Rio Grande basin in Colorado, New Mexico, and Texas, 1936-37: Natl. Resources Comm., Washington, Feb. 1938, V. 1, 566 p., v.2, pls.

2. Winograd, I. J., 1959, Ground-water conditions and geology of Sunshine Valley and western Taos County, New Mexico: N.Mex. State Engineer Tech. Rept. 12, 69 p.

3. Renick, B. C., 1931, Geology and ground-water resources of western Sandoval County, New Mexico: U. S. Geol. Water-Supply Paper 620, 117.

4. Spiegel, Zane E., Baldwin, B., Kottlowski, F. E., Barrows, E.L., and Winkler, M. A., 1958, Geology and water resources of the Santa Fe area, New Mexico: U. S. Geol. Survey Open-file Rept., 403 p. (To be published as a U. S. Geol. Survey Water-Supply Paper).

5. Theis, C. V. and Taylor, G. C., Jr., 1938, Ground-water conditions in the Middle Rio Grande Valley, New Mexico: N. Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p. 263-271.

6. Spiegel, Zane E., 1955 Geology and ground-water resources of northeastern Socorro County, New Mexico: N. Mex. Inst. Min. and Technology, State Bur. Mines and Mineral Resources Ground-water Rept. 4, 99 p.

7. Murray, C. R., 1949, Ground-water conditions in the nonthermal artesian-water basin south of Hot Springs, Sierra County, New Mexico: N. Mex. State Engineer Tech. Rept. 10, 33 p.

8. Theis, C. V., and others, 1942, Thermal waters of the Hot Springs artesian basin, Sierra County, New Mexico: N. Mex. State Engineer 14th-15th Bienn. Repts., 1938-42, p.419-492 (1953).

9. Conover, C. S., 1954, Ground-water conditions in the Rincon and Mesilla Valleys and adjacent areas in New Mexico: U. S. Geol. Survey Water-Supply Paper 1230, 200 p.

10. Natl. Resources Plan. Board, 1942 Regional planning, pt. X, The Pecos River joint investigation, (1) Summary, Analyses, and findings, 207 p., (2) Report of the participating agencies, 407., (3) Atlas, 34 pls. Natl. Resources Plan. Board, Washington.

11. Griggs, R. L., and Hendrickson, G. E., 1951, Geology and ground-water resources of San Miguel County, New Mexico: N. Mex. Inst. Min. and Technology, State Bur. Mines and Mineral Res. Ground-water Rept. 2, 121 p.

12. Fiedler, A. G., and Nye, S.S., 1933, Geology and ground-water resources of the Roswell artesian basin, New Mexico: U. S. Geol. Survey Water-Supply Paper 639, 372 p.

13. Bean, R. T., 1957, Geology of the Roswell artesian basin, New Mexico and its relation to the Mondo Reservoir: N. Mex. State Engineer Tech. Rept. 9, p. 1-31.

14. Theis, C. V., 1957, Effect on artesian aquifer of storage of flood water in Mondo Reservoir: N. Mex. State Engineer Tech. Rept. 9, p. 33-36.

15. Mower, R. W., 1960, Pumpage in the Roswell basin, Chaves and Eddy Counties, New Mexico: U. S. Geol. Survey Open-file Rept., 88 p., 21 figs. (For publication by N. Mex. State Engineer).

16. Hood, J. W., 1960, Summary of saline ground-water conditions in the Roswell basin, Chaves and Eddy Counties, New Mexico: U. S. Geol. Survey Open-file Rept., 24 p., 8 figs. (To be published as a U. S. Geol. Survey Water-Supply Paper).

17. Hood, J. W., Mower, R. W., and Grogin, M. J., 1960, The occurrence of saline ground-water near Roswell, Chaves County, New Mexico: N. Mex. State Engineer Tech. Rept. 17, 93 p.

18. Morgan, A.M., 1938, Geology and shallow-water resources of the Roswell artesian basin, New Mexico.: N. Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p. 155-249.

19. Renick, B. C., 1926, Geology and ground-water resources of the drainage basin of the Rio Penasco above Hope, New Mexico.: N. Mex. State Engineer 7th Bienn. Rept., 1925-26, p. 103-138.

20. Hendrickson, G. E., and Jones, R. S., 1952 Geology and ground-water resources of Eddy County New Mexico.: N. Mex. Inst. Min. and Technology, State Bur. Mines and Mineral Resources Ground-water Rept. 3, 169 p.

21. Bjorklund, L. J., and Motts, W. S., 1959, Geology and water resources of the Carlsbad area, Eddy County, New Mexico: U. S. Geol. Survey Open-file Rept., 321 p., app. 132 p., 14 pls., 54 figs. (To be published as U. S. Geol. Survey Water-Supply Paper).

22. Hale, W. E., 1945, Ground-water conditions in the vicinity of Carlsbad, New Mexico, (for publication in N. Mex. State Engineer 16th-17th Bienn. Repts., 1942-46): U. S. Geol. Survey, typed, 77 p.

23. Robinson, T. W., and Lang, W. B., 1938, Geology and ground-water conditions of the Pecos River Valley in the vicinity of Laguna Grande de la Sal, New Mexico, with special reference to the salt content of the river water: N. Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p. 77-100, and Bull. 4.

24. Hale, W. E., and others, 1954, Possible improvement of quality of water of the Pecos River by diversion of brine at Malaga Bend, Eddy County, New Mexico: Pecos River Comm., N. Mex. and Texas, 43 p.

25. Hale, W. E., 1945, Ground-water conditions in the vicinity of Rattlesnake Springs, Eddy County, New Mexico: N. Mex. State Engineer Tech. Rept. 3, 54 p.

26. Bjorklund, L. J., 1957, Reconnaissance of ground-water conditions in the Crow Flats area, Otero County, New Mexico: N. Mex. State Engineer Tech. Rept. 8, 26 p.

27. Griggs, R. L., 1948, Geology and ground-water resources of the eastern part of Colfax County, New Mexico: N. Mex. School of Mines, State Bur. Mines and Mineral Res. Ground-water Rept. 1, 180 p.

28. Howard, J. W. Jr., 1954, Reconnaissance of ground-water conditions in Curry County, New Mexico: N. Mex. State Engineer Tech. Rept. 1, 35 p.

29. Theis, C. V., 1932, Report on the ground water in Curry and Roosevelt Counties, New Mexico: N. Mex. State Engineer 10th Bienn. Rept., 1930-32, p. 98-160.

30. Theis, C. V., 1934, Progress report on the ground-water supply of the Portales Valley, New Mexico: N.Mex. State Engineer 11th Bienn. Rept. 1932-34, p.87-108.

31. Theis, C. V., 1938, Progress report on the ground-water supply of the Portales Valley, New Mexico: N.Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p.101-118.

32. Conover, C. S., and Akin, P.D., 1942, Progress report on the ground-water supply of Portales Valley, New Mexico: N.Mex. State Engineer 14th-15th Bienn. Repts., 1938-42, p.311-346.

33. Cooper, James B., 1960, Ground-water in the Causey-Lingo area, Roosevelt County, New Mexico: N.Mex. State Engineer Tech. Rept.14, 51 p.

34. Nye, S. S., 1930, Shallow ground-water supplies in northern Lea County, New Mexico: N. Mex. State Engineer 9th Bienn. Rept., 1928-30, p.363-387.

35. Nye, S. S., 1932, Progress report on the ground-water supply of northern Lea County, New Mexico: N.Mex. State Engineer 10th Bienn. Rept., 1930-32, p.229-251.

36. Theis, C. V., 1934, Progress Report on the ground-water supply of Lea County, New Mexico: N. Mex. State Engineer 11th Bienn. Rept.,1932-34, p.127-153.

37. Theis, C. V., 1938, Progress report on the ground-water supply of Lea County, New Mexico: N.Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p.121-133.

38. Conover, C.S., and Akin, P.D., 1942, Progress report on the ground-water supply of northern Lea County, New Mexico; N.Mex. State Engineer 14th-15th Bienn. Repts., 1938-42, p.283-309.

39. Smith, R. E., 1957, Geology and ground-water resources of Torrance County, New Mexico: N.Mex. Inst. Mining and Technology, State Bur. Mines and Mineral Resources Ground-water Rept. 5, 186 p.

40. White, W. N., 1931, Preliminary report on the ground-water supply of Mimbres Valley, New Mexico: U. S. Geological Survey Water-Supply Paper 637-B, p.69-90. Also pub. in N. Mex. State Engineer 9th Bienn. Rept., 1928-30, p.131-152.

41. White, W.N., 1954, Progress report on the ground-water supply of the Mimbres Valley, New Mexico: N. Mex. State Engineer 11th Bienn. Rept., 1932-34, p.109-125.

42. Theis, C. V., 1938, Progress report on the ground-water supply of the Mimbres Valley, New Mexico: N.Mex. State Engineer 12th-13th Bienn. Repts., 1934-38, p.135-153.

43. Conover, C. S., and Akin, P.D., 1942, Progress report on the ground-water supply of Mimbres Valley, New Mexico, 1938-41: N.Mex. State Engineer 14th-15th Bienn. Repts., 1938-42, p.235-282.

44. Trauger, F.D., and Herrick, E.H., 1958, Occurrence of ground water in central Hachita Valley northeast of the Big Hatchet Mountains, Hidalgo County, New Mexico: U. S. Geol. Survey Open-file Rept., 30 p. (For publication by N.Mex. State Engineer.)

45. Doty, Gene C., 1960, Reconnaissance of ground-water in Playas Valley, Hidalgo County, New Mexico: N. Mex. State Engineer Tech. Rept., 15, 40 p.

46. Reeder, H. O., 1958, Ground water in Animas Valley, Hidalgo County, New Mexico: N. Mex. State Engineer Tech. Rept. 11, 101 p.

MAJOR BASIC AND PROGRESS GROUND-WATER STUDIES

BY THE
U.S. GEOLOGICAL SURVEY

UNDER COOPERATIVE AGREEMENTS
WHEREIN THE STATE ENGINEER
IS A PARTY

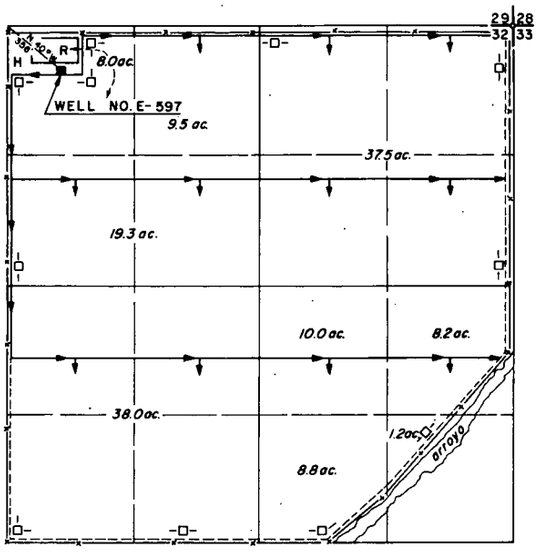
JUNE - 1960

STATE ENGINEER OFFICE
DRAWN BY M.H. BOYCE
JUNE 1960

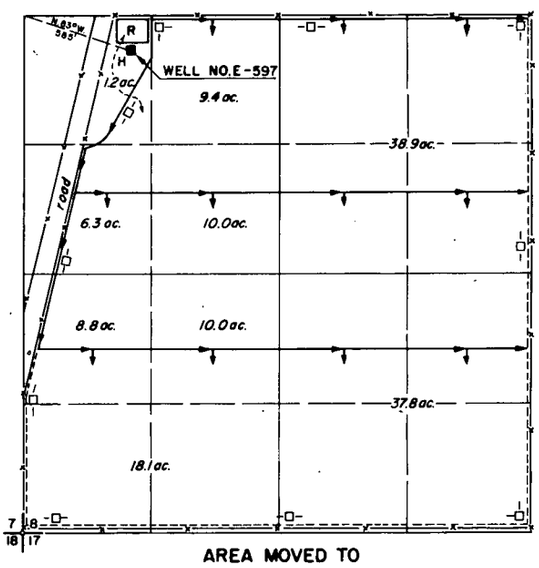
0 5 10 20 30 40 50
SCALE IN MILES

PLAT OF JOHN W. SMITH GROUND-WATER DEVELOPMENT UNDER PERMIT NO. E-597

TO CHANGE LOCATION OF WELL AND PLACE OF USE IN ESTANCIA UNDERGROUND WATER BASIN



AREA MOVED FROM



AREA MOVED TO

AREA MOVED FROM:

SUBDIVISION	SEC.	TWP.	RGE.	ACRES
NW 1/4, NW 1/4, NE 1/4	32	8N	9E	8.0
NE 1/4, NW 1/4, NE 1/4	32	8N	9E	9.5
S 1/2, NW 1/4, NE 1/4	32	8N	9E	19.3
NE 1/4, NE 1/4	32	8N	9E	37.5
SW 1/4, NE 1/4	32	8N	9E	38.0
NW 1/4, SE 1/4, NE 1/4	32	8N	9E	10.0
NE 1/4, SE 1/4, NE 1/4	32	8N	9E	8.2
SW 1/4, SE 1/4, NE 1/4	32	8N	9E	8.8
SE 1/4, SE 1/4, NE 1/4	32	8N	9E	1.2
			TOTAL	140.5

AREA MOVED TO:

SUBDIVISION	SEC.	TWP.	RGE.	ACRES
NW 1/4, NW 1/4, SW 1/4	8	7N	9E	1.2
NE 1/4, NW 1/4, SW 1/4	8	7N	9E	9.4
SW 1/4, NW 1/4, SW 1/4	8	7N	9E	6.3
SE 1/4, NW 1/4, SW 1/4	8	7N	9E	10.0
NE 1/4, SW 1/4	8	7N	9E	38.9
NW 1/4, SW 1/4, SW 1/4	8	7N	9E	8.8
NE 1/4, SW 1/4, SW 1/4	8	7N	9E	10.0
S 1/2, SW 1/4, SW 1/4	8	7N	9E	18.1
SE 1/4, SW 1/4	8	7N	9E	37.8
			TOTAL	140.5

I, HENRY DOE, HEREBY CERTIFY THAT I AM THE REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR WHO PREPARED THE ABOVE MAP AND STATEMENT FROM FIELD NOTES OF ACTUAL SURVEYS CONDUCTED ON NOVEMBER 20, 1955 BY ME OR UNDER MY DIRECTION, AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Henry Doe
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

LICENSE NO. 4425
DECEMBER 10, 1955

Seal

SCALE: 1 INCH = 400 FEET

FILE NO. E-597

TWP.____ RGE.____ SEC.____

23"

17"

The sample plat shown above has been reduced to approximately one-half its original size for printing purposes.

The water right is controlled by natural or artificial boundaries which limit cropping practice and include all water-using areas created by irrigation structures and works adjoining the cropped area. Storage reservoirs where isolated from the cropped area shall be shown as part of the water right.

SAMPLE PLAT OF WATER RIGHT FILING MAP

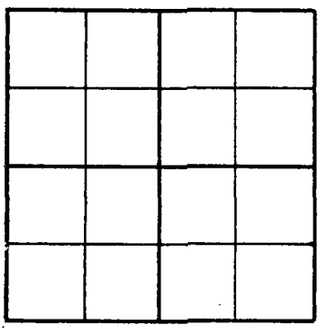
WR–45

STATE ENGINEER OFFICE

DRILL HOLE RECORD

INSTRUCTIONS: This form should be executed in duplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections pertaining to the specific drill hole shall be answered as completely and accurately as possible. Any additional remarks or information pertinent to the plugging or construction and operation and maintenance of the drill hole should be included in Section 7.

Section 1



(Plat of 640 acres)

(A) Owner of land or lessee _____

Street and Number _____

City _____ State _____

Hole is located in the _____ ¼ _____ ¼ _____ ¼ of Section _____

Twp. _____ Rge. _____

(B) Drilling Contractor _____

Street and Number _____

City _____ State _____

Drilling: Commenced _____ 19__ Completed _____ 19____

Elevation at top of casing in feet above sea level _____ Total depth of hole _____

Check whether water encountered is ☐ shallow or ☐ artesian. Depth to water upon completion _____

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
	From	To		
1				
2				
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth		Feet	Type Shoe	Perforations	
			Top	Bottom			From	To

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
From	To				

Section 5 PLUGGING RECORD

Name of Plugging Contractor _____

Street and Number _____ City _____ State _____

Tons of Clay used _____ Tons of Roughage used _____ Type of roughage _____

Plugging method used _____ Date Plugged _____ 19____

Plugging approved by:

_____
Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug		No. of Sacks Used
	From	To	

FOR USE OF STATE ENGINEER ONLY

Date Received _____

File No. _____ Use _____ Location No. _____ _____ _____

Section 6 LOG OF HOLE

Depth in Feet		Thickness in Feet	Color	Type of Material Encountered
From	To			

Section 7. Remarks and additional information

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

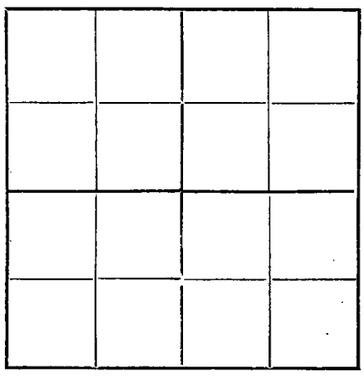
Form WR-23

STATE ENGINEER OFFICE

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1



(Plat of 640 acres)

(A) Owner of well.....

Street and Number.....

City ..... State .....

Well was drilled under Permit No. ..... and is located in the

..... ¼ ..... ¼ ..... ¼ of Section ..... Twp. ..... Rge. .....

(B) Drilling Contractor ..... License No. .....

Street and Number.....

City ..... State .....

Drilling was commenced ..... 19.....

Drilling was completed ..... 19.....

Elevation at top of casing in feet above sea level ..... Total depth of well .....

State whether well is shallow or artesian ..... Depth to water upon completion .....

Section 2 **PRINCIPAL WATER-BEARING STRATA**

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
	From	To		
1				
2				
3				
4				
5				

Section 3 **RECORD OF CASING**

Dia in.	Pounds ft.	Threads in	Depth		Feet	Type Shoe	Perforations	
			Top	Bottom			From	To

Section 4 **RECORD OF MUDDING AND CEMENTING**

Depth in Feet		Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
From	To				

Section 5 **PLUGGING RECORD**

Name of Plugging Contractor ..... License No. .....

Street and Number ..... City ..... State .....

Tons of Clay used ..... Tons of Roughage used ..... Type of roughage .....

Plugging method used ..... Date Plugged ..... 19.....

Plugging approved by:

.....
Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug		No. of Sacks Used
	From	To	

FOR USE OF STATE ENGINEER ONLY

Date Received .....

File No. ..... Use ..... Location No. .....

Section 6

LOG OF WELL

Depth in Feet		Thickness in Feet	Color	Type of Material Encountered
From	To			

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Well Driller

WR-28 Important-Read Instructions on Back Before Filling Out This Form

APPLICATION FOR PERMIT
TO DRILL FOR OIL

(required in artesian underground basins only)

Application No. _____ Book _____ Date Received _____

1. Name of applicant _____
   Post Office address _____; City or Town _____
   County of _____, State of _____

2. Well is to be drilled under contract for _____
   (self or company)
   and is to be known as the _____ well,

3. The well is to be located in the _____ ¼, _____ ¼, _____ ¼,
   of Section _____, Township _____, Range _____, N. M. P. M.
   on land owned by _____ of _____

4. Description of well: Depth to be drilled _____ feet;
   Casing and cementing program as follows:

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	NEW OR USED	DEPTH FEET	HANDED OR CEMENTED	SACKS OF CEMENT

5. Notice of intention _____ (has) _____ (has not) been filed with the Oil and Gas Conservation Commission or the U. S. Geological Survey.

6. Conformance bond _____ (has) _____ (has not) been filed and approved with the Oil and Gas Conservation Commission.

7. Time required to commence construction _____
   Time required to complete the works _____

8. Additional statements or explanations: _____

I, _____, being first duly sworn upon my oath, depose and say that I have carefully read the foregoing statement and each and all of the items contained therein, and that the same are true to the best of my knowledge and belief.

_____ applicant

Subscribed and sworn to before me this _____ day of _____, A. D., 19_____.

_____
Notary Public

My commission expires _____

APPROVAL OF THE STATE ENGINEER

Number of this permit _____ Date received corrected _____
Recorded in Book _____ Application received _____
Page _____ Date returned for correction _____

This application is approved subject to the prior approval of the Oil and Gas Conservation Commission and provided that the applicant complies with all rules and regulations of the State Engineer pertaining to the drilling of wells, and further provided, that casing shall not be run or cemented except in the presence of a representative of the State Engineer's Office.

_____

Works shall be completed and completion or plugging report filed on or before _____

This is to certify that I have examined the above application for permit to drill for oil in an artesian underground basin of the State of New Mexico and hereby approve the same subject to the foregoing provisions and conditions.

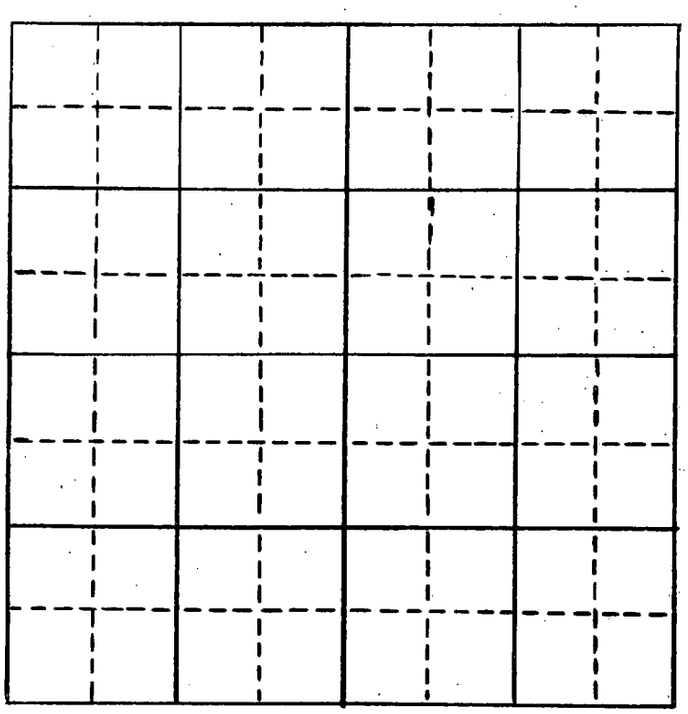
Witness my hand and seal this _____ day of _____, A. D., 19_____.

_____
State Engineer

By: _____
Chief, Water Rights Division

LOCATE WELL AS ACCURATELY AS POSSIBLE ON FOLLOWING PLAT:

Section (s) _____, Township _____, Range _____ N.M.P.M.

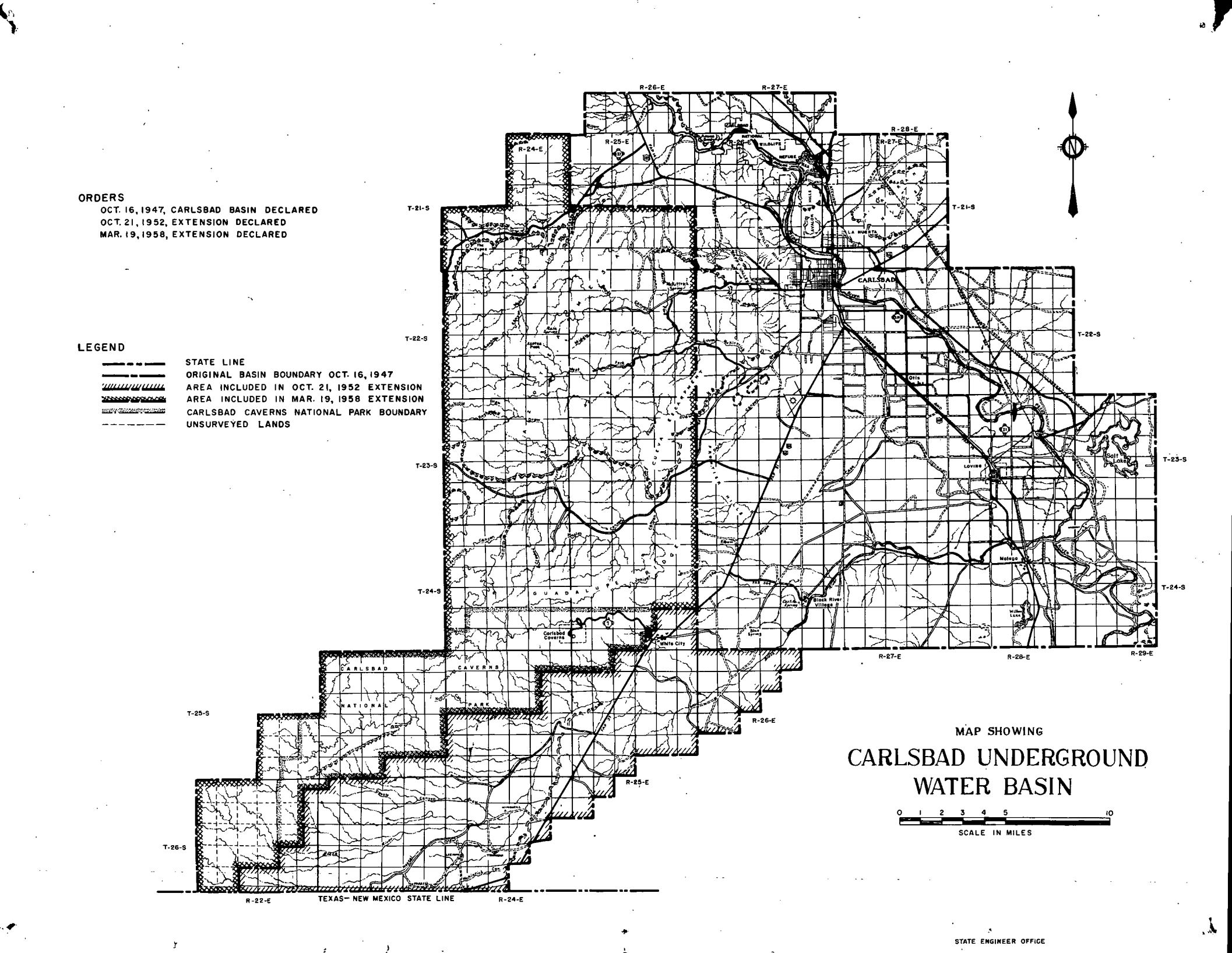


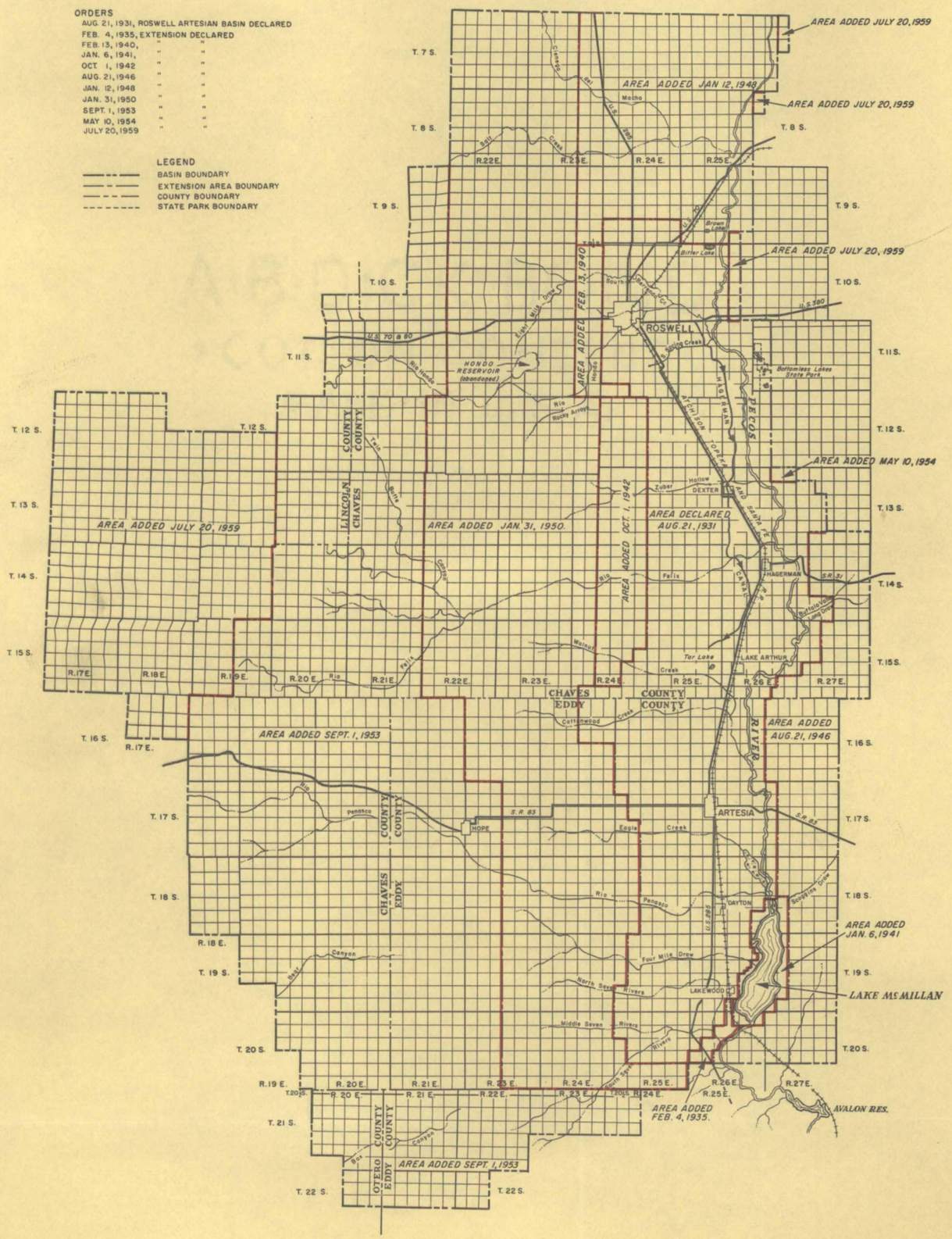
INSTRUCTIONS

This form shall be executed, preferably typewritten, in triplicate.
Each of triplicate copies must be properly signed and attested.

A separate application for permit must be filed for each well used.

Secs. 1-4----Fill out all blanks fully and accurately.
Sec. 7-------Estimate time reasonably required to commence and to complete project.
If additional space is necessary, use a separate sheet or sheets and attach securely hereto.
Drilling shall not commence until approval of the State Engineer is obtained.
All casing shall be inspected and approved by a representative of the State Engineer before use.
If well proves to be non-productive the well shall be plugged under the supervision of the State Engineer or his representative.
Log of well shall be filed with the District Supervisor, Box 810, Roswell, New Mexico, upon completion.


ORDERS
OCT. 16, 1947, CARLSBAD BASIN DECLARED
OCT. 21, 1952, EXTENSION DECLARED
MAR. 19, 1958, EXTENSION DECLARED
LEGEND
STATE LINE
ORIGINAL BASIN BOUNDARY OCT. 16, 1947
AREA INCLUDED IN OCT. 21, 1952 EXTENSION
AREA INCLUDED IN MAR. 19, 1958 EXTENSION
CARLSBAD CAVERNS NATIONAL PARK BOUNDARY
UNSURVEYED LANDS
R-26-E
R-27-E
R-28-E
R-25-E
R-24-E
T-21-S
T-22-S
T-23-S
T-24-S
T-25-S
T-26-S
CARLSBAD
CARLSBAD CAVERNS NATIONAL PARK
GUADALUPE
Carlsbad Caverns
White City
Black River Village
Malaga
Loving
Otis
Salt Lake
R-22-E
TEXAS– NEW MEXICO STATE LINE
R-24-E
R-29-E
MAP SHOWING
CARLSBAD UNDERGROUND WATER BASIN
0 1 2 3 4 5 10
SCALE IN MILES
STATE ENGINEER OFFICE



MAP

SHOWING DECLARED AREA

ROSWELL ARTESIAN BASIN

STATE OF NEW MEXICO STATE ENGINEER OFFICE S. E. REYNOLDS, STATE ENGINEER ROSWELL ARTESIAN BASIN		
DATE JULY 20, 1959		
TRACED M. H. BOYCE APPROVED	SHEET NO.	FILE NO.

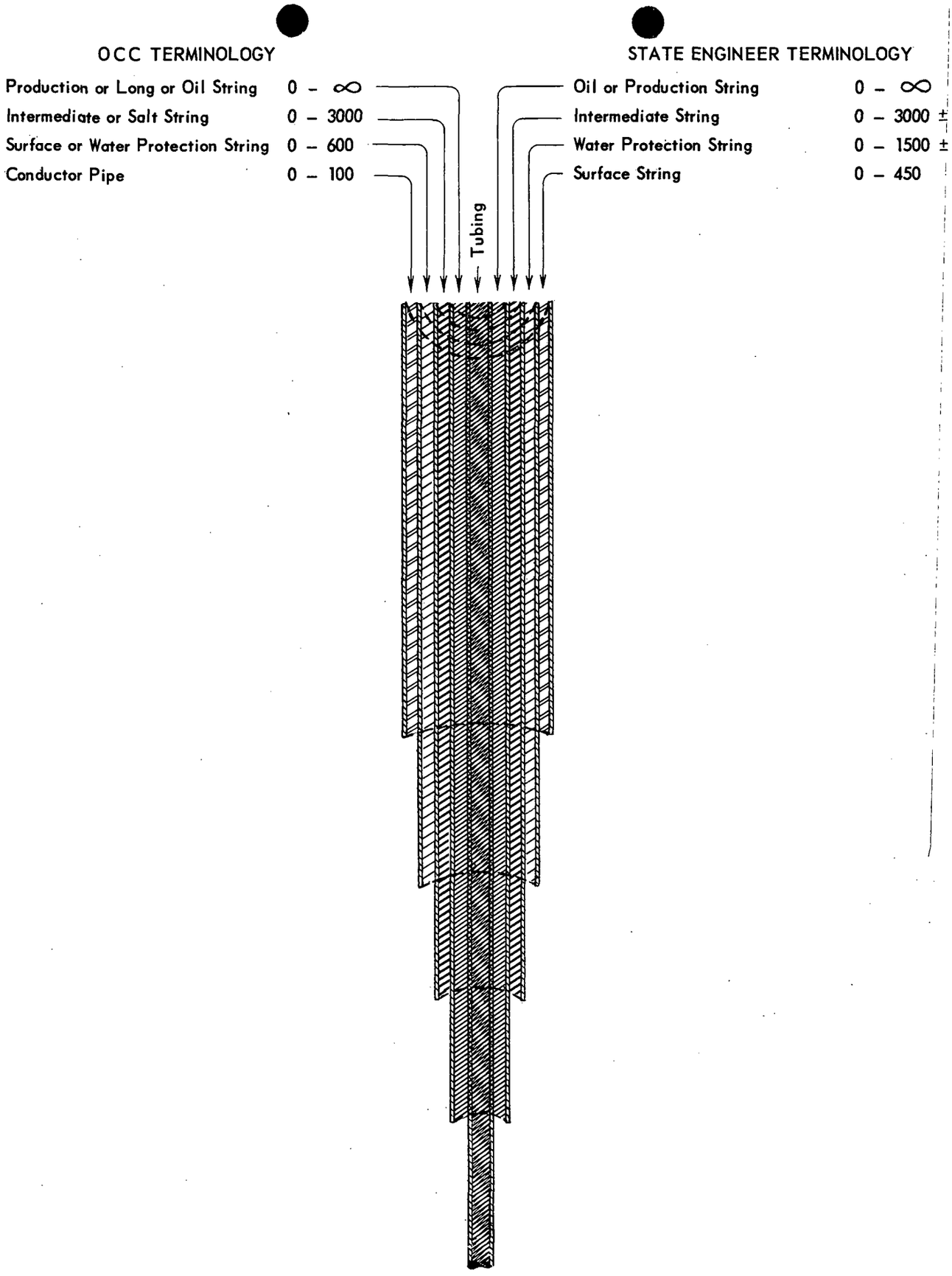
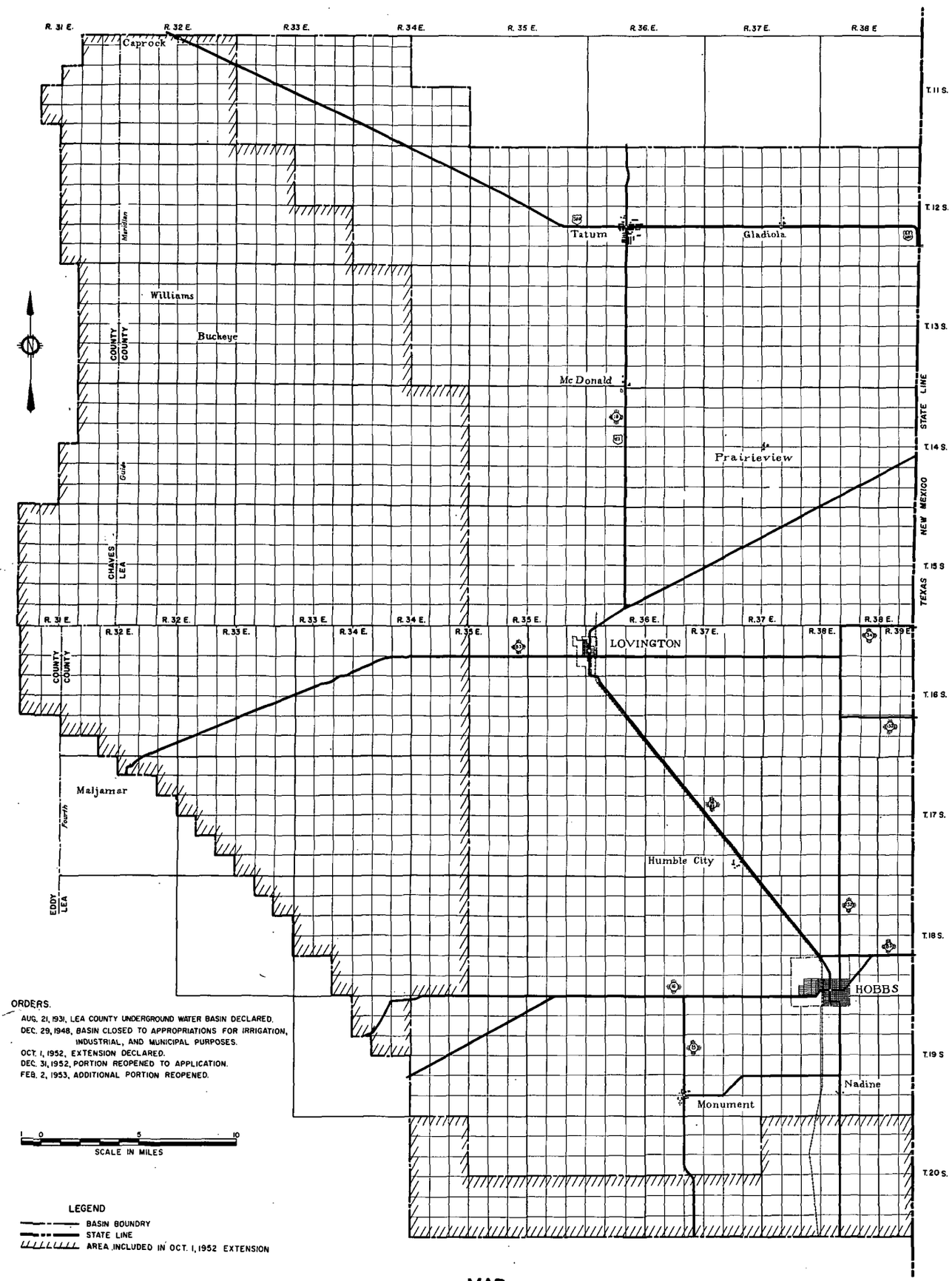


DIAGRAM
of
WELL CASING IN ARTESIAN BASINS

for the purpose of demonstrating the difference in the terminology of the State Engineer Office and the Oil Conservation Commission, and to clarify State Engineer Order No. 63 issued on 11 September 1956. No mention of liners or a second intermediate string, which might be required for an extremely deep hole, is made since neither would have significance in this program. Note that the curved, dashed lines connect the comparable casing walls and that the lengths of the two outer strings may vary considerably.



ORDERS.

AUG. 21, 1931, LEA COUNTY UNDERGROUND WATER BASIN DECLARED.
DEC. 29, 1948, BASIN CLOSED TO APPROPRIATIONS FOR IRRIGATION, INDUSTRIAL, AND MUNICIPAL PURPOSES.
OCT. 1, 1952, EXTENSION DECLARED.
DEC. 31, 1952, PORTION REOPENED TO APPLICATION.
FEB. 2, 1953, ADDITIONAL PORTION REOPENED.

LEGEND

BASIN BOUNDRY
STATE LINE
AREA INCLUDED IN OCT. 1, 1952 EXTENSION

MAP

SHOWING DECLARED AREA

LEA COUNTY UNDERGROUND WATER BASIN

STATE ENGINEER OFFICE

OGALLALA FORMATION
Lea County, New Mexico

Order No. R-3288, Adopting Operating Rules for the Production of Oil from the Ogallala Formation, Lea County, New Mexico, August 1, 1967.

Application of Charles E. Seed for Four Ogallala Oil Proration Units and Special Rules, Lea County, New Mexico.

CASE NO. 3628
Order No. R-3288

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on July 26, 1967, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of August, 1967, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Charles E. Seed, seeks authority to develop each of the quarter-quarter sections comprising the SW/4 of Section 30, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico, for the production of oil from the Ogallala formation to a maximum density of one well per 0.625-acre tract with no well being nearer than 82.5 feet to the outer boundary of a 40-acre unit and no nearer than 165 feet to another oil well producing from the Ogallala formation, provided that an exception should be made for existing wells located on the aforesaid tracts which are not located in conformance with said spacing rules.

(3) That the applicant also seeks a temporary exception to Rule 307 of the Commission Rules and Regulations for each well to be drilled on the aforesaid quarter-quarter sections to the Ogallala formation in order to permit the utilization of a vacuum-type drilling unit during the drilling and completion of said wells.

(4) That the applicant further seeks authority to produce all wells, authorized by this order, on each 40-acre unit at capacity even though the aggregate production from said wells exceeds the 40-acre normal unit allowable.

(5) That the Ogallala formation is the major source of fresh water in the Lea County Underground Water Basin as declared by the State Engineer.

(6) That the oil existing in the Ogallala formation is not the result of a natural accumulation of oil and, therefore, does not constitute an oil pool as commonly understood in the oil and gas business.

(7) That the presence of oil in the Ogallala formation constitutes a hazard to the fresh water supplies therein.

(8) That said oil should be removed from the Ogallala formation, a fresh water aquifer, as quickly and efficiently as possible.

(9) That the utilization as proposed by the applicant of a vacuum-type drilling unit during the drilling and completion of said wells will not damage any stratum containing oil or gas.

(10) That in order to facilitate the removal of oil, an adulterous substance when present in the Ogallala formation, from said aquifer, the applicant should be authorized to develop the aforesaid quarter-quarter sections for the production of oil from the Ogallala formation to the density requested by the applicant, to utilize a vacuum-type drilling unit during drilling and completion of said wells, and to produce said wells at capacity.

(11) That the applicant, Charles E. Seed, is the owner of four "water" wells located in the aforesaid quarter section and drilled under authority granted by the State Engineer.

(12) That said four "water" wells are capable of and are producing oil from the Ogallala formation.

(13) That upon expiration of the water well permits authorizing the aforesaid four "water" wells, said wells should be classified as oil wells.

IT IS THEREFORE ORDERED:

(1) That the applicant, Charles E. Seed, is hereby authorized to develop each of the quarter-quarter sections comprising the SW/4 of Section 30, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico, to a maximum density of one well per 0.625-acre tract for the purpose of removing oil from the Ogallala formation, a fresh water aquifer.

PROVIDED HOWEVER, that no well shall be drilled nearer than 8.5 feet to the outer boundary of a 40-acre tract and no nearer than 165 feet to another oil well located on said tract.

(2) That the locations of the four "water" wells presently completed in and producing oil from the Ogallala formation are hereby approved as oil wells, effective upon the termination of the water well permits authorizing said wells; that the operator of the four "water" wells shall notify the Hobbs District Office of the Commission in writing of the name and location of said four wells upon expiration of the water well permits and shall also file with said office Forms C-101 and C-102 in accordance with Rules 1101 and 1102 of the Commission Rules and Regulations.

(3) That the applicant is hereby authorized, as an exception to Rule 307 of the Commission Rules and Regulations, to utilize a vacuum-type drilling unit during the drilling and completion of each of the oil wells authorized by Order No. (1) of this order.

(4) That the applicant is hereby authorized to produce each of the wells authorized by this order at maximum capacity until further order of the Commission.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

SOUTH PRAIRIE-DEVONIAN POOL
Roosevelt County, New Mexico

Order No. R-3533, Adopting Temporary Operating Rules for the South Prairie-Devonian Pool, Roosevelt County, New Mexico, October 23, 1968.

Order No. R-3533-A, October 14, 1969, makes permanent the rules adopted in Order No. R-3533.

Application of J. M. Huber Corporation for the Creation of a New Oil Pool and for Special Pool Rules, Roosevelt County, New Mexico.

CASE NO. 3881
Order No. R-3533

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a. m. on October 9, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 23rd day of October, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, J. M. Huber Corporation, seeks the creation of a new oil pool for Devonian production in Roosevelt County, New Mexico, and the promulgation of special rules and regulations governing said pool, including a provision for 80-acre spacing units.

(3) That the J. M. Huber Corporation Lone Star Federal Well No. 1, located in the NE/4 NE/4 of Section 20, Township 8 South, Range 36 East, NMPM, Roosevelt County, New Mexico, has discovered a separate common source of supply which should be designated the South Prairie-Devonian Pool; that the vertical limits of said pool should be the Devonian formation; that the horizontal limits of said pool should be the E/2 NE/4 of the aforesaid Section 20.

(4) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 80-acre spacing units should be promulgated for the South Prairie-Devonian Pool.

(5) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(6) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(7) That this case should be reopened at an examiner hearing in October, 1969, at which time the operators in the subject pool should be prepared to appear and show cause why the South Prairie-Devonian Pool should not be developed on 40-acre spacing units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Roosevelt County, New Mexico, classified as an oil pool for Devonian production, is hereby created and designated the South Prairie-Devonian Pool, with vertical limits comprising the Devonian formation, and horizontal limits comprising the E/2 NE/4 of Section 20, Township 8 South, Range 36 East, NMPM, Roosevelt County, New Mexico.

(2) That temporary Special Rules and Regulations for the South Prairie-Devonian Pool, Roosevelt County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
SOUTH PRAIRIE-DEVONIAN POOL

RULE 1. Each well completed or recompleted in the South Prairie-Devonian Pool or in the Devonian formation within one mile thereof, and not nearer to or within the limits of another designated Devonian oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset

(SLICK ROCK-DAKOTA POOL - Cont'd.)

from the same pool; provided, however, that in no event shall said well or wells be completed or recompleted nearer than 165 feet to the boundary of acreage owned by an offset operator.

RULE 3. The Secretary-Director of the Commission shall have authority to grant exceptions to Rule 2 without notice and hearing where an application therefor has been filed in due form and the necessity for the exception is based on topographical conditions.

All operators owning acreage within 330 feet of the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators owning acreage within 330 feet of the proposed location or if no such operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

RULE 4. A 40-acre proration unit shall not produce in excess of the 40-acre top unit allowable for wells in the 0-5000 foot depth range in Northwest New Mexico, regardless of the number of wells on the unit.

IT IS FURTHER ORDERED:
(1) That the locations of all wells presently drilling to or completed in the Slick Rock-Dakota Oil Pool or in the Dakota formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Aztec District Office of the Commission in writing of the name and location of the well on or before June 15, 1967.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

OGALLALA FORMATION
Lea County, New Mexico

Order No. R-3261, Adopting Operating Rules for the Production of Oil from the Ogallala Formation, Lea County, New Mexico, June 16, 1967.

Application of Amerada Petroleum Corporation for an Ogallala Oil Proration Unit, Special Rules for Said Unit and Authority for Fresh Water Disposal, Lea County, New Mexico.

CASE NO. 3594
Order No. R-3261

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on June 6, 1967, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 16th day of June, 1967, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:
(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Amerada Petroleum Corporation, seeks authority to develop the SE/4 NW/4 of Section 30, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico, for the production of oil from the Ogallala formation to a maximum density of one well per 0.625-acre tract with no well being nearer than 82.5 feet to the outer boundary of the unit and no nearer than 165 feet to another oil well producing from the Ogallala formation, provided that an exception should be made for existing wells located on the aforesaid tract which are not located in conformance with said spacing rules.

(3) That the applicant also seeks a temporary exception to Rule 307 of the Commission Rules and Regulations for each well to be drilled on the aforesaid quarter-quarter section to the Ogallala formation in order to permit the utilization of a vacuum-type drilling unit during the drilling and completion of said wells.

(4) That the applicant further seeks authority to produce all wells authorized by this order at capacity even though the aggregate production from said wells exceeds the 40-acre normal unit allowable.

(5) That the Ogallala formation is the major source of fresh water in the Lea County Underground Water Basin as declared by the State Engineer.

(6) That the oil existing in the Ogallala formation is not the result of a natural accumulation of oil and, therefore, does not constitute an oil pool as commonly understood in the oil and gas business.

(7) That the presence of oil in the Ogallala formation constitutes a hazard to the fresh water supplies therein.

(8) That said oil should be removed from the Ogallala formation, a fresh water aquifer, as quickly and efficiently as possible.

(9) That the utilization as proposed by the applicant of a vacuum-type drilling unit during the drilling and completion of said wells will not damage any stratum containing oil or gas.

(10) That in order to facilitate the removal of oil, an adulterous substance when present in the Ogallala formation, from said aquifer, the applicant should be authorized to develop the aforesaid quarter-quarter section for the production of oil from the Ogallala formation to the density requested by the applicant, to utilize a vacuum-type drilling unit during drilling and completion of said wells, and to produce said wells at capacity.

(11) That the applicant, Amerada Petroleum Corporation, is the owner of two "water" wells located in the aforesaid quarter-quarter section and drilled under authority granted by the State Engineer.

(12) That said two "water" wells are capable of and are producing oil from the Ogallala formation.

(13) That upon expiration of the water well permits authorizing the aforesaid two "water" wells, said wells should be classified as oil wells.

(OGALLALA FORMATION - Cont'd.)

(14) That applicant's request for authority to dispose of fresh water produced with the oil back into the Ogallala formation was dismissed, at the request of the applicant, without prejudice to the right of the applicant to utilize surface pits for the disposal of water to be produced with oil produced from the Ogallala formation.

IT IS THEREFORE ORDERED:

(1) That the applicant, Amerada Petroleum Corporation, is hereby authorized to develop the SE/4 NW/4 of Section 30, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico, to a maximum density of one well per 0.625-acre tract for the purpose of removing oil from the Ogallala formation, a fresh water aquifer;

PROVIDED, HOWEVER, that no well shall be drilled nearer than 82.5 feet to the outer boundary of said tract and no nearer than 165 feet to another oil well located on said tract.

(2) That the locations of the two "water" wells presently completed in and producing oil from the Ogallala formation are hereby approved as oil wells, effective upon the termination of the water well permits authorizing said wells; that the operator of the two "water" wells shall notify the Hobbs District Office of the Commission in writing of the name and location of said two wells upon expiration of the water well permits and shall also file with said office Forms C-101 and C-102 in accordance with Rules 1101 and 1102 of the Commission Rules and Regulations.

(3) That the applicant is hereby authorized, as an exception to Rule 307 of the Commission Rules and Regulations, to utilize a vacuum-type drilling unit during the drilling and completion of each of the oil wells authorized by Order No. (1) of this order.

(4) That the applicant is hereby authorized to produce each of the wells authorized by this order at maximum capacity until further order of the Commission.

(5) That jurisdication of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

CARLSBAD PERMO-PENNSYLVANIAN GAS POOL
Eddy County, New Mexico

Order No. R-3282-A, Rescinding the Temporary Operating Rules Adopted for the Carlsbad Permo-Pennsylvanian Gas Pool, Eddy County, New Mexico, October 1, 1974.

In the Matter of Case 3608 Being Reopened Pursuant to the Provisions of Order No. R-3282, Which Order Established Temporary Rules for the Carlsbad Permo-Penn Gas Pool, Eddy County, New Mexico, Including a Provision for 640-Acre Spacing.

CASE NO. 3608
Order No. R-3282-A

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on July 10, 1974, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 30th day of July, 1974, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That by Order No. R-3282, dated July 27, 1967, temporary rules were promulgated for the Carlsbad Permo-Penn Gas Pool, Eddy County, New Mexico, establishing temporary 640-acre spacing units.

(3) That pursuant to the provisions of Order No. R-3282, this case was reopened to allow the operators in the subject pool to appear and show cause why the Carlsbad Permo-Penn Gas Pool should not be developed on 320-acre spacing units.

(4) That no cause was shown why said pool should not be developed on 320-acre spacing.

(5) That in order to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the temporary rules promulgated by Order No. R-3282 should be rescinded and the pool should be governed by the Statewide Rules for gas pools of Pennsylvanian age or older, effective October 1, 1974.

IT IS THEREFORE ORDERED:

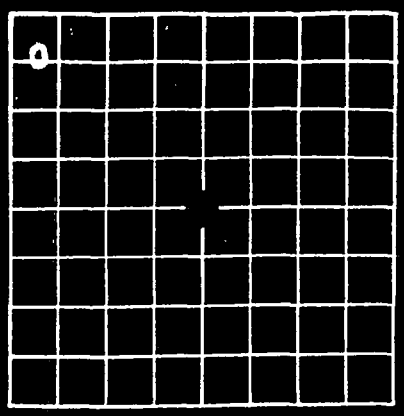
(1) That the Temporary Rules governing the Carlsbad Permo-Penn Gas Pool, Eddy County, New Mexico, promulgated by Order No. R-3282, are hereby rescinded, effective October 1, 1974.

(2) That after October 1, 1974, the Permo-Penn Gas Pool shall be governed by the Statewide Rules for gas pools of Pennsylvanian age or older.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

Form 9-330



LOCATE WELL CORRECTLY

U. S. LAND OFFICE Las Cruces
SERIAL NUMBER 032233
LEASE OR PERMIT TO PROSPECT B. A. Bowers

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Humble Oil & Refining Co. Address McCamey, Texas
Lessor or Tract B. A. Bowers Field Hobbs State New Mexico
Well No. 2 Sec. SW/4 30 T. 18S R. 38E Meridian ____ County Lea
Location 330 ft. {N./S.} of S Line and 330 ft. {E./W.} of W Line of SW/4 Sec. 30 Elevation ____ (Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed COPY SIGNED DAVID TRAMS
Date May 12, 1930 Title Division Sup't.

The summary on this page is for the condition of the well at above date.

Commenced drilling 4-10-1930, 19____ Finished drilling 4-19-1930, 19____

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from ____ to ____ No. 4, from ____ to ____
No. 2, from ____ to ____ No. 5, from ____ to ____
No. 3, from ____ to ____ No. 6, from ____ to ____

IMPORTANT WATER SANDS

No. 1, from ____ to ____ No. 3, from ____ to ____
No. 2, from ____ to ____ No. 4, from ____ to ____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From	Perforated To	Purpose

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used

MARK

PLUGS AND ADAPTERS

Heaving plug—Material ______ Length ______ Depth set ______

Adapters—Material ______ Size ______

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 106' T.D. feet, and from ______ feet to ______ feet

Cable tools were used from ______ feet to ______ feet, and from ______ feet to ______ feet

DATES

______, 19____ Put to producing ______, 19____

The production for the first 24 hours was ______ barrels of fluid of which ______ % was oil; ______ % emulsion; ______ % water; and ______ % sediment. Gravity, °Bé. ______

If gas well, cu. ft. per 24 hours ______ Gallons gasoline per 1,000 cu. ft. of gas ______

Rock pressure, lbs. per sq. in. ______

EMPLOYEES

Norman Henry, Driller   [illegible], Driller

B. J. Myers, Driller   ______, Driller

FORMATION RECORD

FROM	TO	TOTAL FEET	FORMATION
0	50'	50'	Rock
50	100	50	Sand & Rock
100	106	6	Hard Sand Rock -
			Total Depth

(OVER)

6—6745

B11

Form 9-331a
(Feb., 1923)

Las Cruces
U.S. Land Office _____
_____
Serial Number 052233
Lease or Permit L. A. Edwards

RECEIVED
APR 21 1930
U. S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT RECORD OF SHOOTING	
NOTICE OF INTENTION TO CHANGE PLANS		RECORD OF PERFORATING CASING	
NOTICE OF DATE FOR TEST OF WATER SHUT-OFF		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	X
REPORT ON RESULT OF TEST OF WATER SHUT-OFF		NOTICE OF INTENTION TO ABANDON WELL	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO SHOOT		SUPPLEMENTARY WELL HISTORY	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Hobbs, Texas. April 18, 1930 192

Following is a {notice of intention to do work / report of work done} on land under {permit / lease} described as follows:

New Mexico (State or Territory) Lea (County or Subdivision) Hobbs (Field)

Well No. 2 SE 1/4 Sec. 30 (¼ Sec. and Sec. No.) 18-South (Twp.) 38-East (Range) _____ (Meridian)

The well is located 330 ft. {N/S} of I line and 330 ft. {E/W} of E line of sec. SE 1/4 Sec. 3

The elevation of the derrick floor above sea level is _____ ft.

DETAILS OF PLAN OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work.)

Hole to be mudded from bottom (1065') up to 66' and cemented from 66' to top.

APPROVAL CONDITIONS

1. Cementing pipe of casing at surface an regulation marker. The pipe should extend about five feet above the surface, cemented in ground with cement plug at top.
2. After completion of plugging, submit three copies of Subsequent Report of Abandonment showing method of plugging used, nature of marker cemented at surface and condition of premises around the abandoned location

Approved April 21, 1930 (Date)

R. A. Hanna

Title Deputy Supervisor GEOLOGICAL SURVEY

Address Roswell, New Mexico

Company Humble Oil & Refining Co.

By _____

Title Division Sup't's.

Address Hobbs, Texas.

NOTE.—Reports on this form to be submitted in *triplicate* to the Supervisor for approval.

C—705

RLS

Form 9-331a
(Feb., 1926)

U. S. Land Office Las Cruces

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Serial Number 032233-A

Lease or Permit B. A. Bowers

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	X	SUBSEQUENT RECORD OF SHOOTING	
NOTICE OF INTENTION TO CHANGE PLANS		RECORD OF PERFORATING CASING	
NOTICE OF DATE FOR TEST OF WATER SHUT-OFF		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
REPORT ON RESULT OF TEST OF WATER SHUT-OFF		NOTICE OF INTENTION TO ABANDON WELL	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO SHOOT		SUPPLEMENTARY WELL HISTORY	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

McCamey, Texas. April 3, 1930, 192

Following is a {notice of intention to do work / ~~report of work done~~} on land under {permit / lease} described as follows:

New Mexico (State or Territory) Lea (County or Subdivision) Hobbs (Field)

Well No. 2 SE 1/4 Sec. 30 (¼ Sec. and Sec. No.) 18-South (Twp.) 38-East (Range) (Meridian)

The well is located 330 ft. {N / S} of E line and 330 ft. {E / W} of W line of sec. SE 1/4 Sec. 30

The elevation of the derrick floor above sea level is ..... ft.

DETAILS OF PLAN OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work.)

12 1/2" -50# - 200' through water sand with 180 sacks cement.

9 5/8" -36# - 2750' on top of brown lime with 600 sacks cement.

7" -26# - 3960' on top of white lime with 600 sacks cement.

Approved April 8, 1930. (Date)

C. A. Hanson

Title Deputy Supervisor GEOLOGICAL SURVEY

Address Roswell, N. Mex.

Company ~~Humble~~ Oil & Refining Co.

By Daniel Frame

Title Division Sup't.

Address McCamey, Texas.

NOTE.—Reports on this form to be submitted in *triplicate* to the Supervisor for approval.

GOVERNMENT PRINTING OFFICE 6—7853

B16

APPROVAL TO DRILL is given as outlined above with the understanding that the following general and special requirements be strictly complied with:

GENERAL

1. All water to be confined to its original horizon and test made for water shut-off before drilling ahead. Casing shall be cemented if necessary to shut off water.

2. All showings of oil or gas to be tested for their commercial possibilities in a dry hole before drilling ahead. Each showing to be properly protected to prevent migration.

3. To prevent waste of, or damage to, and to provide the U. S. Geological Survey with carefully taken samples of, other minerals drilled through, i. e., coal, salt, potash beds, etc.

4. The permittee shall permanently mark all rigs or wells in a conspicuous place with his name or the name of the actual operator and the number and description of the well, and shall take all necessary precautions to preserve these markings.

5. Notify the U. S. Geological Survey office, P. O. Box 591, Roswell, New Mexico, on form 9-331a, of mudding, cementing, and water shut-off tests a sufficient time in advance in order that an engineer of the Survey may be present.

6. Lessee's monthly report, in triplicate on form 9-329, must be filled out each calendar month and forwarded to the Roswell office not later than the 6th day of the following month.

SPECIAL

1. Any change of drilling plan, or the conditions of approval, must have the written approval of the District Engineer before the change is made.

2. Carefully taken samples of drill cuttings must be taken at least every ten feet from 200 feet from surface to bottom of hole, and submitted through approved agent or directly to the U. S. Geological Survey, Roswell office.

3. The 7" casing to be set not higher than 50' above the 4100 foot pay, or at a point to be determined to be mutually agreed upon between geological department of Humble O. & R. Co. and the Deputy Supervisor.

Bbc

Form 9-331a
(Feb., 1926)

U. S. Land Office Las Cruces

Serial Number 032233

Lease or Permit B. A. Bowers

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	X	SUBSEQUENT RECORD OF SHOOTING	
NOTICE OF INTENTION TO CHANGE PLANS		RECORD OF PERFORATING CASING	
NOTICE OF DATE FOR TEST OF WATER SHUT-OFF		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
REPORT ON RESULT OF TEST OF WATER SHUT-OFF		NOTICE OF INTENTION TO ABANDON WELL	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO SHOOT		SUPPLEMENTARY WELL HISTORY	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

McCamey, Texas. March 27, 1930 192

Following is a {notice of intention to do work / ~~report of work done~~} on land under {permit / lease} described as follows:

New Mexico (State or Territory) Lea (County or Subdivision) Hobbs (Field)

Well No. 2 SE 1/4 Section 30 (¼ Sec. and Sec. No.) 18-South (Twp.) 38-East (Range) (Meridian)

The well is located 330 ft. {N / S} of N line and 330 ft. {E / W} of W line of sec. 30

The elevation of the derrick floor above sea level is ..... ft.

DETAILS OF PLAN OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work.)

We expect to set approximately 204'7" of 12 1/2" Casing and cement with 180 sacks. To set 2750' of 9 5/8" Casing and cement with 630 sacks. To set 3962' of 7" Casing and cement with 528 sacks.

Approved ..... (Date)

..... Title ..... GEOLOGICAL SURVEY

Address .....

Company Humble Oil & Refining Co.

By .....

Title Division Sup't.

Address McCamey, Texas.

NOTE.—Reports on this form to be submitted in *triplicate* to the Supervisor for approval.

GOVERNMENT PRINTING OFFICE 6—7653

B17

Form 9-331a
(Feb., 1926)

U.S. Land Office Las Cruces

Serial Number 032233-A

Lease E. A. Bowers

RECEIVED
MAY 14 1930
U. S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT RECORD OF SHOOTING	
NOTICE OF INTENTION TO CHANGE PLANS		RECORD OF PERFORATING CASING	
NOTICE OF DATE FOR TEST OF WATER SHUT-OFF		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
REPORT ON RESULT OF TEST OF WATER SHUT-OFF		NOTICE OF INTENTION TO ABANDON WELL	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF ABANDONMENT	X
NOTICE OF INTENTION TO SHOOT		SUPPLEMENTARY WELL HISTORY	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

McCamey, Texas. May 12, 1930, 192

Following is a {notice of intention to do work / report of work done} on land under {permit / lease} described as follows:

New Mexico (State or Territory) Lea (County or Subdivision) Hobbs (Field)

Well No. 2 SE¼ Sec. 30 (¼ Sec. and Sec. No.) 18-South (Twp.) 38-East (Range) _____ (Meridian)

The well is located 330 ft. {N/S} of N line and 330 ft. {E/W} of W line of sec. SE¼ Sec. 30

The elevation of the derrick floor above sea level is _____ ft.

DETAILS OF PLAN OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work.)

Hole mudded from bottom (106') to 66' and cemented from 66' to bottom of cellar with 25 sacks cement. Cellar filled up and cemented with 15 sacks cement. One 10' joint of 9 5/8" casing set 5' in concrete, 5' protruding for permanent monument or marker. Condition around monument good.

Approved May 15, 1930 (Date)

E. A. Hanson E. A. Hanson

Title Deputy Supervisor GEOLOGICAL SURVEY

Address Roswell, New Mexico

Company Humble Oil & Ref. Co.

By COPY ORIGINAL SIGNED: DAVID FRANKS

Title Division Sup't.

Address McCamey, Texas.

NOTE—Reports on this form to be submitted in *triplicate* to the Supervisor for approval.

GOVERNMENT PRINTING OFFICE 0—7088

B12