

CASE 2847: Application of NEIL H. WILLS for certain unorthodox oil well locations, Eddy County, N.M.

Case No.

28247

Application, Transcript,
Small Exhibits, Etc.

No. 18-63

SUPPLEMENTAL DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 26, 1963

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND
OFFICE BUILDING, SANTA FE, NEW MEXICO

The following case will be heard before Daniel S. Nutter, Examiner, or
Elvis A. Utz, as alternate examiner:

CASE 2847: Application of Neil H. Wills for certain unorthodox oil
well locations, Eddy County, New Mexico. Applicant, in
the above-styled cause, seeks approval of the non-standard
location for several oil producing wells in his Russell
Pool Waterflood Project, Russell Pool, Eddy County, New
Mexico.

No. 18-63

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 26, 1963

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STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, as Alternate Examiner:

CASE 2821: (Continued from June 5, 1963 examiner hearing)

Application of D. W. Falls, Inc., for an extension of Order No. R-2213, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the extension of Order No. R-2213, which order assigned a temporary deliverability for allowable purposes to applicant's Federal Well No. 2-11, located in Unit O of Section 11, Township 28 North, Range 13 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.

CASE 2833: Application of Tenneco Oil Company for approval of a unit agreement, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Central Cha Cha Unit Area comprising 674.05 acres, more or less, of Federal land located in Sections 30 and 31, Township 29 North, Range 13 West, San Juan County, New Mexico.

CASE 2834: Application of Tom Brown Drilling Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Runyan Ranch Unit Area comprising 10,890.12 acres of State and Federal lands in Township 19 South, Range 21 East, Eddy County, New Mexico.

CASE 2835: Application of Jake L. Hamon for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Southeast Bell Lake Unit Area comprising 9,597.09 acres of State, Federal and Fee lands in Townships 24 and 25 South, Ranges 34 and 35 East, Lea County, New Mexico.

CASE 2836: Application of Union Oil Company of California for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the West McDonald Unit Area comprising 2,320 acres of State and Fee lands in Township 14 South, Range 35 East, Lea County, New Mexico.

CASE 2837: Application of Continental Oil Company for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Eastcap Queen Pool Unit Area

comprised 1,000 acres of State and Fee lands, located in Township 14 South, Range 31 East, Chaves County, New Mexico.

- CASE 2838: Application of Continental Oil Company for a waterflood project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation, Caprock Queen Pool, through 17 wells located in Sections 22, 23, 27, 34, and 35, Township 14 South, Range 31 East, Chaves County, New Mexico.
- CASE 2839: Application of Amerada Petroleum Corporation for a multiple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Order No. R-1750-A to permit the multiple completion (tubingless), of its Wimberley Well No. 13, located in Unit M of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, to permit the production of gas from the Langlie Mattix Pool, the production of oil from the Justis-Blinbry Oil Pool, and the disposal of salt water into the San Andres formation through parallel strings of casing cemented in a common well bore.
- CASE 2840: Application of Amerada Petroleum Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 120-acre non-standard gas proration unit comprising the S/2 NE/4 and NW/4 SE/4 of Section 19, Township 21 South, Range 37 East, Blinbry Gas Pool, Lea County, New Mexico, to be dedicated to its L. G. Warlick "A" Well No. 2 located in Unit J of said Section 19.
- CASE 2841: Application of Shell Oil Company for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to drill its Middleton Federal Well No. B-1 at an unorthodox location 660 feet from the North and West lines of Section 31, Township 19 South, Range 32 East, Lusk-Morrow Gas Pool, Lea County, New Mexico.
- CASE 2842: Application of Compass Exploration, Inc. for an amendment of Commission Order No. R-2462, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Order No. R-2462 concerning the Largo Gallup Gas Pool to provide 320-acre gas well spacing and an increase in the maximum allowable for each spacing unit from 500 to 1,000 MCF per day.

- CASE 2843: Application of Gulf Oil Corporation for a special gas well test, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to produce and flare approximately 3000 MCF of gas per day for a period of not less than 6 nor more than 9 days from its Hackberry Hills Unit Well No. 1, located in Unit O of Section 1, Township 22 South, Range 25 East, Eddy County, New Mexico, to determine if the gas reserves in place justify the expense of a pipeline to the nearest market outlet.
- CASE 2844: Application of Sinclair Oil & Gas Company for the creation of the Teas Pennsylvanian Gas Pool and for special temporary pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian Gas Pool for its Mahaffey-Federal (ARC) Well No. 1, located in Unit C of Section 14, Township 20 South, Range 33 East, Lea County, New Mexico, and for the establishment of temporary pool rules therefor, including a provision for 640 acre spacing units.
- CASE 2845: Application of Sinclair Oil & Gas Company for an exception to Order No. R-1670, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order permitting its Barber Gas Unit Well No. 1, located in Unit E of Section 8, Township 20 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to produce 600 MCF of gas per month in exception to the shut-in provisions of Rule 15(A) of Order No. R-1670, said gas to be utilized in the oil well gas-lift system on applicant's B. J. Barber Lease.
- CASE 2846: Application of Ralph Lowe to create a new pool for Upper Pennsylvanian gas production, and for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for Upper Pennsylvanian Gas production in Section 21, Township 21 South, Range 24 East, and the establishment of temporary pool rules therefor, including a provision for 640-acre spacing and a provision restricting well locations.

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
C. B. JOHNNY WALKER
~~MEMBER~~

P. O. BOX 871
SANTA FE

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

July 8, 1963

Mr. Penrod J. Toles
Attorney at Law
P. O. Drawer 1300
Roswell, New Mexico

Re: Case No. 2847
Order No. R-2511
Applicant:
NEIL H. WILLS

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

1r/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC x

Astec OCC

OTHER

**BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO**

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:**

CASE No. 2847
Order No. R-2511

**APPLICATION OF NEIL H. WILLS
FOR CERTAIN UNORTHODOX OIL
WELL LOCATIONS, EDDY COUNTY,
NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on June 26, 1963, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 8th day of July, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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, Neil H. Wills, seeks approval of 18 non-standard oil well locations in his Russell Pool Waterflood Project, Russell Pool, Eddy County, New Mexico.
- (3) That Administrative Order WFX No. 140 authorized the applicant to drill the subject wells as water injection wells for purposes of secondary recovery as more fully set out in said order.
- (4) That the applicant now seeks authority to utilize some of the subject wells as production wells in his Russell Pool Waterflood Project.
- (5) That approval of the subject application will afford the applicant an opportunity to recover otherwise unrecoverable oil, thereby preventing waste.

-2-

CASE No. 2847
Order No. R-2511

(6) That approval of the subject application will protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Neil H. Wills, is hereby authorized to utilize oil wells located on the following-described non-standard locations as oil production wells in his Russell Pool Waterflood Project:

NEW MEXICO PRINCIPAL MERIDIAN, EDDY COUNTY, NEW MEXICO,
TOWNSHIP 20 SOUTH, RANGE 28 EAST

- 10 feet from the South line and 1980 feet from the East line of Section 12;
- 660 feet from the North line and 2630 feet from the East line of Section 13;
- 660 feet from the North line and 1310 feet from the East line of Section 13;
- 1310 feet from the North line and 1980 feet from the West line of Section 13;
- 1310 feet from the North line and 2630 feet from the East line of Section 13;
- 1310 feet from the North line and 1310 feet from the East line of Section 13;
- 1310 feet from the North line and 660 feet from the East line of Section 13;
- 1980 feet from the North line and 2630 feet from the East line of Section 13;
- 1980 feet from the North line and 1310 feet from the East line of Section 13;
- 2630 feet from the North line and 1330 feet from the West line of Section 13;
- 2630 feet from the North line and 1980 feet from the West line of Section 13;
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-3-

CASE No. 2847
Order No. R-2511

2630 feet from the North line and 1310 feet from the East line of Section 13;

1980 feet from the South line and 1330 feet from the West line of Section 13;

1980 feet from the South line and 2630 feet from the East line of Section 13;

1330 feet from the South line and 1330 feet from the West line of Section 13; and

1330 feet from the South line and 1980 feet from the West line of Section 13.

PROVIDED HOWEVER, That Neil H. Wills shall notify the Santa Fe office of the Oil Conservation Commission of the date that each well is placed on production or converted to water injection, making reference to this case number in such letter of notification.

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

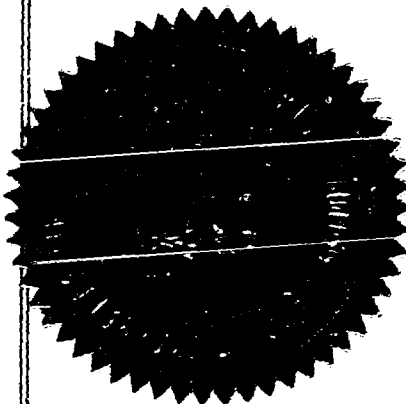
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M. Campbell
JACK M. CAMPBELL, Chairman

E. S. Walker
E. S. WALKER, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary



enc/

MONTHLY WATER FLOOD REPORT _____ May _____, 1953

1

OPERATOR Neil H. Wills

LEASE

Russell Pool

Water Flood Started _____ April _____, 1953

PRODUCTION DATA					
Water Input Month Bbls.	Overall Input W/O Ratio	Mo. Prod. W/O Ratio	Mo. Prod. Water Bbls.	Monthly Prod. Oil & Water Bbls.	Accum. Water Prod. Bbls.
48,138	5.73	5.60	33,264	39,204	-

AVERAGE DAILY OIL PRODUCTION 94.7 BBLs. PRIOR TO FLOODING
 AVERAGE DAILY OIL PRODUCTION 191.6 BBLs. (THIS MONTH)

Oil Prod. Month Bbls. *	Oil Prod. Month By Flooding Est. Bbls.	Oil Prod. Month Normal Recovery During Flood Est. Bbls.	Accum. Prod. By Flooding Est. Bbls.	Accum. Prod. by Normal Recov. During Flooding Est. Bbls.	Accum. Prod. Prior To Flooding Bbls.	Total Accum. Prod. Bbls.
5,940	5,940	0	824,528	152,687	842,221	1,819,436

TOTAL ACRE FEET IN PROJECT 8511

TOTAL ACRE FEET UNDER FLOOD 8511

PRODUCTION PER ACRE FOOT PRIOR TO FLOODING

98.84 BBLs.

NORMAL PRODUCTION PER ACRE FOOT DURING FLOODING

17.94 BBLs.

PRODUCTION PER ACRE FOOT BY FLOODING

96.88 BBLs.

TOTAL PRODUCTION PER ACRE FOOT

213.66 BBLs.

WATER INJECTION DATA

Input Well No.	Avg. Press. Lbs.	Total Water Inj. Bbls.	Avg. Daily Input Bbls.	Rec. Daily Input Bbls.	Accum. Tot. Water Injected Bbls.	Acre Feet Invaded 100% Eff.	Recom. Daily Input Next Month Bbls.	Remarks
2	677	1,995	64.4	60	143,281	-	60	
5	677	2,368	76.4	200	558,995	-	200	
6	536	2,167	69.9	75	168,987	-	75	
8	677	1,226	39.5	70	178,416	-	70	
10	677	297	10.0	40	164,302	-	40	
14	677	1,192	38.5	100	22,312	-	100	
15	677	1,231	39.7	100	50,985	-	100	
17	677	123	4.0	20	32,380	-	20	
18	677	360	11.6	20	59,907	-	20	
19	677	2,444	78.8	90	315,075	-	90	
21	677	981	31.6	100	216,491	-	100	
23	677	1,816	58.6	130	320,860	-	130	
25	677	208	6.7	50	28,052	-	50	
26	677	347	11.2	50	27,113	-	50	
27	677	1,610	51.9	60	105,090	-	60	
28	677	31	1.0	60	61,642	-	60	

TOTAL

* NOTE: Daily Gauges, not E.B. Production

BEFORE EXAMINER NUTTER
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. 3
 CASE NO. 2847

MONTHLY WATER FLOOD REPORT May, 19 63

1-A

OPERATOR Neil H. Wills

LEASE Russell Pool

Water Flood Started April, 19 53

WATER INJECTION DATA

Input Well No.	Avg. Press. Lbs.	Total Water Inj. Bbls.	Avg. Daily Input Bbls.	Rec. Daily Input Bbls.	Accum. Tot. Water Injected Bbls.	Acre Feet Invaded 100% Eff.	Recom. Daily Input Next Month Bbls.	Remarks
29				0	67,923	-	0	
30	677	256	8.3	40	66,368	-	40	
T2	677	1,977	63.8	50	71,286	-	50	
T3	677	704	22.7	60	23,400	-	60	
T4				0	20,862	-	0	
T6	677	998	32.2	30	49,314	-	30	
T8	677	4,470	144.2	105	369,331	-	105	
T12	677	4,813	155.3	190	634,270	-	190	
T13	677	2,841	91.6	100	210,260	-	100	
T14	677	3,965	127.9	170	604,846	-	170	
T15	677	676	21.8	40	43,901	-	40	
T17	677	380	12.3	50	50,336	-	50	
T18	509	2,836	91.5	100	366,019	-	100	
T21	677	1,474	47.5	45	211,792	-	45	
T22	677	411	13.3	55	89,190	-	55	
C2	676	3,404	109.8	75	82,643	-	75	
C4	677	537	17.3	40	98,657	-	40	

MONTHLY WATER FLOOD REPORT

2

Neil H. Wills

OPERATOR Russell Pool

LEASE

May, 1963

INDIVIDUAL WELL TESTS						
WELL NO.	TEST	OIL BBL	WATER BBL	TOTAL FLUID BBL	Pump Capacity	REMARKS *
					WELL	
1	Previous	9	47	56	81	March Test
	This Mo.	7	48	55	81	
3	Previous	4	49	53	96	
	This Mo.	4	42	46	96	
4	Previous	3	0	3	65	November Test
	This Mo.	NT				
7	Previous	15	159	174	180	March Test
	This Mo.	7	107	114	180	
9	Previous	7	15	22	76	
	This Mo.	10	13	23	76	
11	Previous	41	50	91	144	
	This Mo.	42	67	109	144	
12	Previous	5	48	53	71	
	This Mo.	3	41	44	71	
13	Previous	9	20	29	96	
	This Mo.	9	42	51	96	
16	Previous	14	42	56		March Test
	This Mo.	9	106	115		
20	Previous	10	4	14	59	
	This Mo.	11	4	15	59	
22	Previous	11	22	33	132	
	This Mo.	11	20	31	132	
T1	Previous	6	14	20	41	
	This Mo.	6	14	20	41	
T7	Previous	3	12	15	41	March Test
	This Mo.	NT				
T9	Previous	8	57	65	77	
	This Mo.	4	60	64	77	
T10	Previous	19	60	79	126	
	This Mo.	20	59	79	126	
T11	Previous	10	73	83	144	
	This Mo.	10	71	81	144	
T16	Previous	20	238	258	285	
	This Mo.	20	230	250	285	

	PREVIOUS MONTH	THIS MONTH
Total Oil Tests		
Total Water Tests		
Total Fluid Tests		
Avg. Prod. WOR		

* Remarks includes pump efficiency, partial water analysis, etc.

2

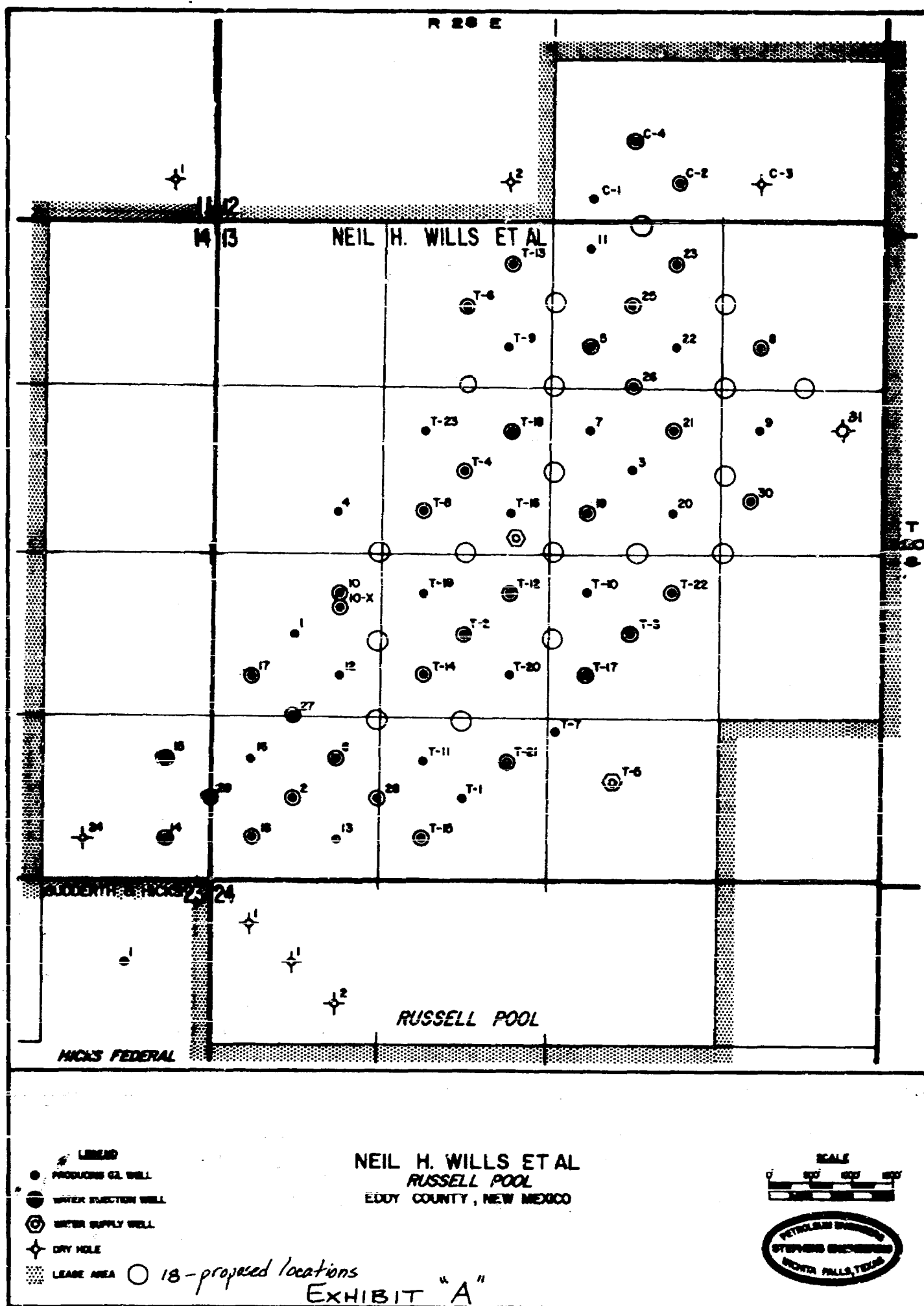
LEASE

[illegible]

	PREVIOUS MONTH	THIS MONTH
Total Oil Tests	233	216
Total Water Tests	1,175	1,210
Total Fluid Tests	1,408	1,426
Avg. Prod. WOR	5.04	5.60

Logo of Stephens Engineering, Petroleum Engineers, Wichita Falls, Texas. The logo is an oval shape with the text "PETROLEUM ENGINEERS" at the top, "STEPHENS ENGINEERING" in the center, and "WICHITA FALLS, TEXAS" at the bottom.

P. O. Box 2249 — Phone 723-2167



BEFORE EXAMINER NUTTER

FOR CONSERVATION COMMISSION

EXHIBIT NO. 2847

CASE NO. 2847

DRAFT

JMD/esr
July 5, 1963

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 2847

Order No. R- 2511

APPLICATION OF NEIL H. WILLS
FOR CERTAIN UNORTHODOX OIL
WELL LOCATIONS, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
June 26, 1963, at Santa Fe, New Mexico, before Daniel S. Nutter,
Examiner duly appointed by the Oil Conservation Commission of New
Mexico, hereinafter referred to as the "Commission," in accordance
with Rule 1214 of the Commission Rules and Regulations.

NOW, on this _____ day of July, 1963, the Commission,
a quorum being present, having considered the application, the
evidence adduced, and the recommendations of the Examiner,
Daniel S. Nutter, 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, Neil H. Wills, seeks approval of
18 non-standard oil well locations in his Russell Pool Water-
flood Project, Russell Pool, Eddy County, New Mexico.

(3) That Administrative Order WFX No. 140 authorized the
applicant to drill the subject wells as water injection wells
for purposes of secondary recovery as more fully set out in
said order.

(4) That the applicant now seeks authority to utilize
some of the subject wells as production wells in his Russell
Pool Waterflood Project.

(5) That approval of the subject application will afford the applicant an opportunity to recover otherwise unrecoverable oil, thereby preventing waste.

(6) That approval of the subject application will protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Neil H. Wills, is hereby authorized to utilize oil wells located on the following-described non-standard locations as oil production wells in his Russell Pool Waterflood Project:

NEW MEXICO PRINCIPAL MERIDIAN, EDDY COUNTY, NEW MEXICO,
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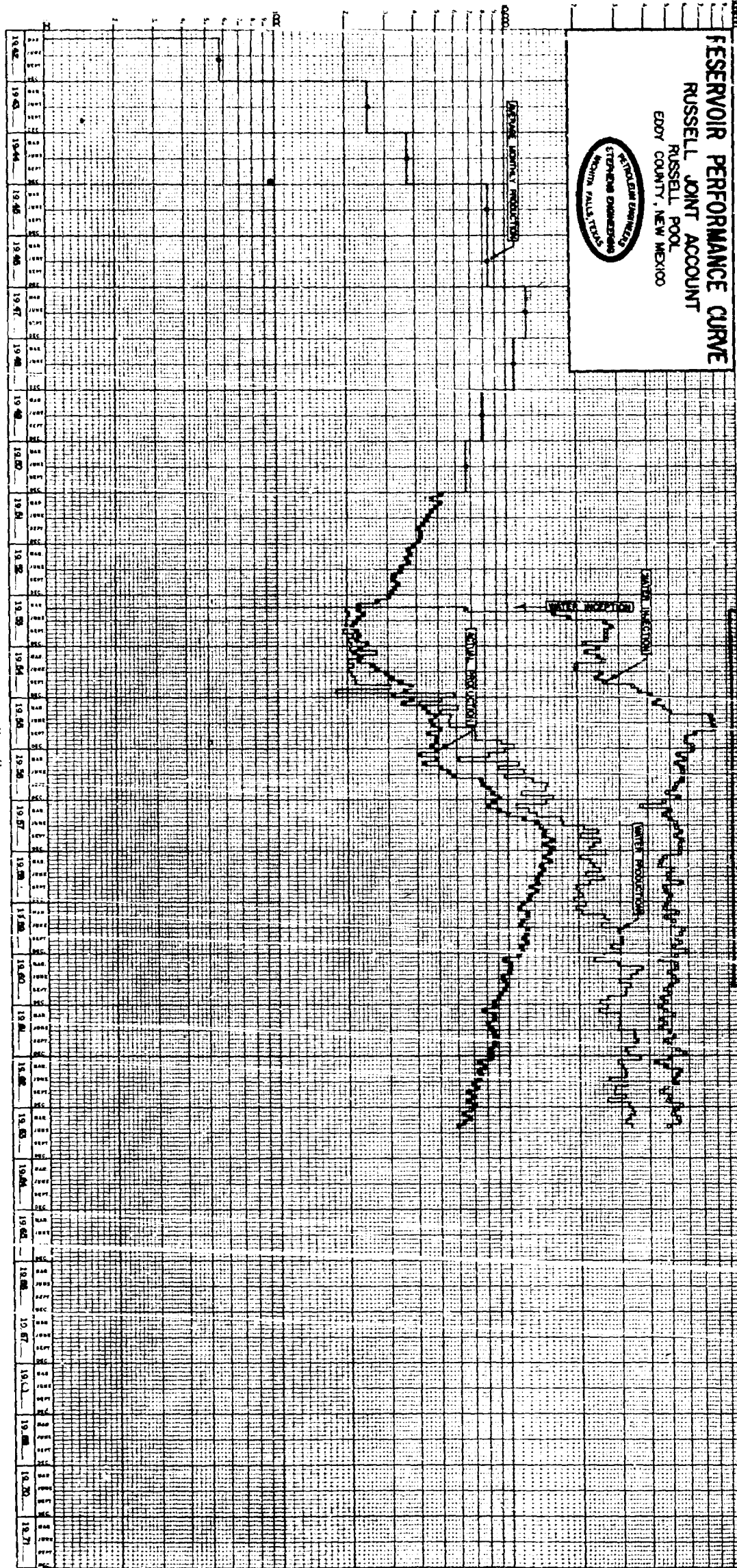
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line of Section 13.

PROVIDED HOWEVER, That Neil H. Wills shall notify the Santa
Fe office of the Oil Conservation Commission of the date that each
well is placed on production or converted to water injection, *making*
reference to this case number in such letter of notification.

(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 herein-
above designated.

OIL and WATER PRODUCTION, WATER INJECTION - BARRELS PER MONTH



BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 28,177

EXHIBIT "B"

No. 18-63

SUPPLEMENTAL DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 26, 1963

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND
OFFICE BUILDING, SANTA FE, NEW MEXICO

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Elvis A. Utz, as alternate examiner:

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location for several oil producing wells in his Russell
Pool Waterflood Project, Russell Pool, Eddy County, New
Mexico.

*Revised Tolson
Part 5 Right*

*Good for Tolson
J. D. Tolson
in Eddy County*

No. 18-63

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STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

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for allowable purposes to applicant's Federal Well No. 2-11,
located in Unit O of Section 11, Township 28 North, Range
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Application of Tenneco Oil Company for approval of a unit
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Unit Area comprising 674.05 acres, more or less, of Federal
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Application of Tom Brown Drilling Company for a unit agree-
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Application of Jake L. Hamon for a unit agreement, Lea
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Application of Union Oil Company of California for a unit
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Application of Continental Oil Company for a unit agreement,
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CASE 2838:

*Case 189
2838*

Application of Continental Oil Company for a waterflood project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation, Caprock Queen Pool, through 17 wells located in Sections 22, 23, 27, 34, and 35, Township 14 South, Range 31 East, Chaves County, New Mexico.

CASE 2839:

*Jason K.
L.E. Thomas
D. Engle H.M. Dist.*

Application of Amerada Petroleum Corporation for a multiple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Order No. R-1750-A to permit the multiple completion (tubingless), of its Wimberley Well No. 13, located in Unit N of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, to permit the production of gas from the Langlie Mattix Pool, the production of oil from the Justis-Blinebry Oil Pool, and the disposal of salt water into the San Andres formation through parallel strings of casing cemented in a common well bore.

CASE 2840:

*Jason K.
Thomas*

Application of Amerada Petroleum Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 120-acre non-standard gas proration unit comprising the S/2 NE/4 and NW/4 SE/4 of Section 19, Township 21 South, Range 37 East, Blinebry Gas Pool, Lea County, New Mexico, to be dedicated to its L. G. Warlick "A" Well No. 2 located in Unit J of said Section 19.

CASE 2841:

*Cont. to
last examination*

Application of Shell Oil Company for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to drill its Middleton Federal Well No. S-1 at an unorthodox location 660 feet from the North and West lines of Section 31, Township 19 South, Range 32 East, Lusk-Morrow Gas Pool, Lea County, New Mexico.

CASE 2842:

*Booker Kelly
Ted Stockman*

*Peter Farley
MGR Exploration
& Production*

*Tam Dugan
Pete Burr, Houston*

Application of Compass Exploration, Inc. for an amendment of Commission Order No. R-2462, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Order No. R-2462 concerning the Largo Gallup Gas Pool to provide 320-acre gas well spacing and an increase in the maximum allowable for each spacing unit from 500 to 1,000 MCF per day.

Case 2761

CASE 2843:

Bill Kovter
John H. Hester
Application of Gulf Oil Corporation for a special gas well test, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to produce and flare approximately 3000 MCF of gas per day for a period of not less than 6 nor more than 9 days from its Hackberry Hills Unit Well No. 1, located in Unit O of Section 1, Township 22 South, Range 25 East, Eddy County, New Mexico, to determine if the gas reserves in place justify the expense of a pipeline to the nearest market outlet.

CASE 2844:

Proctor Kelley
Doug Cunningham
Application of Sinclair Oil & Gas Company for the creation of the Teas Pennsylvanian Gas Pool and for special temporary pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian Gas Pool for its Mahaffey-Federal (ARC) Well No. 1, located in Unit C of Section 14, Township 20 South, Range 33 East, Lea County, New Mexico, and for the establishment of temporary pool rules therefor, including a provision for 640 acre spacing units.

CASE 2845:

Proctor Kelley
Doug Cunningham
Application of Sinclair Oil & Gas Company for an exception to Order No. R-1670, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order permitting its Barber Gas Unit Well No. 1, located in Unit E of Section 8, Township 20 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to produce 600 MCF of gas per month in exception to the shut-in provisions of Rule 15(A) of Order No. R-1670, said gas to be utilized in the oil well gas-lift system on applicant's B. J. Barber Lease.

CASE 2846:

Willis
Ammon
Ralph Lowe
Harold Lamb
Application of Ralph Lowe to create a new pool for Upper Pennsylvanian gas production, and for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for Upper Pennsylvanian Gas production in Section 21, Township 21 South, Range 24 East, and the establishment of temporary pool rules therefor, including a provision for 640-acre spacing and a provision restricting well locations.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 26, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of Neil H. Wills for
certain unorthodox oil well locations,
Eddy County, New Mexico. Applicant,
in the above-styled cause, seeks ap-
proval of the non-standard location
for several oil producing wells in his
Russell Pool Waterflood Project,
Russell Pool, Eddy County, New Mexico.

Case 2847

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 2847.

MR. DURRETT: Application of Neil H. Wills for certain
unorthodox oil well locations, Eddy County, New Mexico.

(Whereupon, Applicant's
Exhibits 1, 2 & 3 were
marked for identifica-
tion.)

MR. TOLES: Mr. Nutter, I am Penrod Toles, an attorney
in private practice in Roswell, New Mexico. I'm representing
Mr. Neil Wills in Case 2847. There is one witness to be sworn.

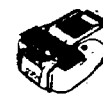
(Witness sworn.)

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ROBERT S. LIGHT

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. TOLES:

Q Will you please state your name and present position for the record?

A My name is Robert S. Light, L-i-g-h-t, I'm an engineer working for Neil H. Wills, Carlsbad, New Mexico.

Q Mr. Light, for the purpose of qualifying you as a witness in this hearing, would you state briefly your educational and professional background as well as your experience?

A My educational background is a Bachelor of Science degree from the University of Kansas in electrical engineering. I was three years with the Geophysical Department of the Continental Oil Company; the past six years I have been employed by Neil H. Wills, Carlsbad, New Mexico, primarily as an engineer in his oil operations, an engineer pertaining to his drilling and exploration operations.

MR. TOLES: Are these qualifications satisfactory?

MR. NUTTER: Yes, they are. Please proceed.

Q Mr. Light, you are familiar with the application here under consideration?

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A I am.

Q For purposes of better understanding, would you briefly give us some background on the Russell Pool which is under consideration and the purposes of this application?

A The Russell Pool is essentially a waterflood project at the present time, located in Section 13, Township 20 South, Range 28 East, Eddy County. At the present time there are 32 injection wells and 21 producing wells. The initial flood on a full scale was started in 1953, the Russell sand of the Yates formation is that being flooded and is found at approximately 850 feet in depth.

Q The purpose of this application is requesting approval for the drilling of 18 unorthodox location wells in the field, is that correct?

A That's correct.

Q I ask you, please, to identify and explain briefly Exhibit No. 1.

A Exhibit No. 1, you'll note that it is also indicated by Exhibit A, is a plat showing producing wells, injection wells, dry holes as per the legend in the left-hand corner, and also an additional 18 proposed locations for producing purposes as indicated by the large open circles.

Q Now, Mr. Light, have the 18 unorthodox well locations



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been previously approved by the Commission as injection wells?

A All 18 of these locations have been previously approved on the date of May 31, 1963 by administrative approval under Order WFX-140.

Q Is it your understanding, Mr. Light, that by this administrative order approving these unorthodox well locations for injection purposes that the casing program and the drilling thereof has been approved by the State Engineer?

A That's my assumption. We have, I might add, in addition to this we have drilled two wells under this casing program and both being approved, the first one being approved in its final form which was plugged as a dry hole, that was No. 31, you'll find that in the Northeast Quarter of Section 13, the east-most well as the plugged dry hole, and that casing program is approved by the United States Geological Survey out of Artesia.

Q Now, then, referring to Exhibit marked No. 2, would you please identify this and explain it briefly?

A Exhibit No. 2 is a reservoir performance curve, you'll note it's a logarithmic scale on the vertical scale. The horizontal scale is, of course, by years. There are three curves represented here, one for oil production, one for water production, that is water produced with the oil, and the topmost curve



is the water injection curve. You'll note that it was started in May or April of 1953.

Q With reference to Exhibit 2, is it true that the principal purpose of these 18 additional wells is to inject more water into this formation toward ultimate recovery of the oil?

A That is correct. In order to obtain the maximum oil out of this small producing field and thereby prevent waste, we feel like that more injection water needs to be put into the sand. You'll note that at the peak we had some 80,000 barrels in any one-month period and we're now down in the neighborhood of below 50,000 barrels. Our purpose, of course, is to inject more water to obtain ultimately more oil.

Q Very briefly, if you will identify and explain Exhibit marked No. 3.

A Exhibit No. 3 is our monthly report, one which we receive monthly from the Engineering Service from Stephens Engineering out of Wichita Falls. They are the engineers on this project and that same party recommended this additional drilling program in order to obtain five-acre spacing in this field. This particular page, page 1, and page 1-a, **represent** water injection by wells on a monthly basis. Page 2 and 2 -- not marked 2, possibly should be, represent the production from the producing wells per month plus the water that comes with the oil.

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Q Now, the purpose of the hearing today under the application in question is to obtain permission to use these 18 unorthodox located wells that will initially or eventually be used for injection purposes as producing wells. Would you please explain the reason for the desirability of this request and this application?

A Well, it was recommended primarily by our engineer, Stephens Engineering, to drill these additional locations and with the idea that if they were productive to put them on production through such time as they dropped to a comparative production of our other production wells, at which time we would shift them over to injection wells and inject water into them and thereby obtaining ultimately more oil.

We are trying to obtain the best possible spacing in the field and if you'll notice on the plat, by drilling these locations we will end up with a five-acre spacing for the entire producing area which we feel has been completely developed.

Q Now, to explain that further, the five-acre spacing would include your producing wells as well as your injection wells?

A That is correct. That would be the total wells drilled, would be on a five-acre spacing.

Q Is it your testimony, Mr. Light, that if the relief



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for in this hearing is granted, that this would do the most possible toward recovering the oil in the pool?

A I believe if we can have a choice of using these wells for injection or producing purposes, that in the over-all pattern we will without doubt prevent waste and ultimately recover the maximum oil that can be produced out of this sand zone.

Q Is there anything else you would like to add at this time?

A I can't think of anything further.

MR. TOLES: That's all I have, except I would like to offer Exhibit 1, 2 and 3.

MR. NUTTER: Applicant's Exhibits 1, 2 and 3 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1, 2 & 3 were offered and admitted in evidence.)

MR. NUTTER: Any questions of Mr. Ligth?

MR. DURRETT: Yes, sir, I have a question.

CROSS EXAMINATION

BY MR. DURRETT:

Q Am I correct that you are proposing to operate these 18 wells under the Rule 701 allowable, is that correct?



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A I'm not sure I can answer that for this reason, this was probably the first waterflood project in New Mexico, and I don't think it's governed by allowables.

Q This is capacity-type flood?

A I believe so.

Q Then you would be proposing that these 18 wells be capacity-type wells also?

A We would ask, I'm sure we'd ask that.

MR. DURRETT: Thank you.

BY MR. NUTTER:

Q When we wrote the order that you referred to, being WFX-140, we didn't have the exact location of the wells and they were specified in that order, I think, for the most part being five or ten feet off of the 40-acre lines?

A Right.

Q Is that footage description satisfactory?

A Very satisfactory. We have reviewed these. I am sorry, we didn't do this originally, in the original letter, and we have already started Well 32. We're drilling on it now and it is the one that is located 1980 from the South line and 2630 from the East line of Section 13, 20, 28. They fall exactly, all these locations are exactly the locations we would like to request.



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Q So the locations are satisfactory?

A Very satisfactory.

Q As outlined on WFX-140, is it your request that all 18 be approved as possible producing wells?

A We would like to let our engineer, who we feel we have great confidence in, decide which wells are to be put into production and which temporarily possibly and which ones would go immediately to injection wells. We don't know until after we drill them whether or not they'll flow oil. It's very possible they'll flow not to the surface but by pump we would get considerable oil out of a new well into the sand.

Q So actually what you would request, then, would be the designation of these wells as production or injection wells?

A That is our intent.

Q And possibly the order could set up some kind of administrative procedure for you to notify the Commission as to the conversion from producer to injector when it was deemed advisable?

A That is exactly what we would like.

Q Have you received any estimate from Stephens Engineering as to the amount of increased production that you can expect after this program is completed?

A No, actually we haven't. I think he's hesitant to say it was his recommendation that we're doing this, and he feels



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that economically it's sound for Mr. Wills to invest in these additional injection wells.

Q Your current production rate is down to 6,000 barrels per month?

A That is true. The month of April the production was 5,940 barrels of oil, which is Exhibit 3.

MR. NUTTER: Are there any further questions of Mr. Lighth?

BY MR. PORTER:

Q Present spacing in that pool is ten acres?

A That is correct, except sometime ago by hearing approval was obtained on drilling unorthodox locations 26 through 31, which 26 through 30 were drilled, 31 was never drilled. In that portion of the field did bring itself up to a five-acre spacing in certain portions. Now, the additional 18 locations will make an overall five-acre spacing.

Q But your primary production was obtained on ten-acre spacing?

A That is correct.

MR. PORTER: Thank you.

MR. NUTTER: Any further questions of the witness? He may be excused.

(Witness excused.)



MR. NUTTER: Do you have anything further, Mr. Toles?

MR. TOLES: Nothing further.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2847? We'll take the case under advisement.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 5th day of July, 1963.

Ada Dearnley
Notary Public-Court Reporter

My commission expires:
June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2847, heard by me on 6/24, 1963.

Examiner
New Mexico Oil Conservation Commission

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NEIL H. WILLS

P. O. BOX 519

CARLSBAD, N. M.

August 23, 1963

Oil Conservation Commission
State of New Mexico
Santa Fe, N. M.

Re: Case #2847
Order #R-2511

Gentlemen:

As requested in the above order, I submit
the following:

Section 13, T. 20 S., R. 28 E., Eddy County

<u>Well</u>	<u>Date</u>	<u>Location</u>
Wills-32	put on production 8-1-63	1980' fr SL, 2630' fr EL
Wills-33	put on production 8-17-63	1330' fr SL, 1980' fr WL

Very truly yours,

Neil H. Wills
Neil H. Wills