

CASE 2681: Application of KENNEDY  
OIL CO. for approval of waterflood  
project in Square Lake Pool.

Case No.

2681

Application, Transcript,  
Small Exhibits, Etc.

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. 2681  
Order No. R-2358

APPLICATION OF KENNEDY OIL COMPANY  
FOR A WATERFLOOD PROJECT, EDDY COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on October 24, 1962, at Santa Fe, New Mexico, before Elvis A. Utz, 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 6th day of November, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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, Kennedy Oil Company, seeks authority to institute a waterflood project in the Square Lake Pool by the injection of water into the Grayburg-San Andres formations through the following wells located in Section 28, Township 16 South, Range 31 East, N28E, Eddy County, New Mexico:

Kennedy Oil Company-Federal Well No. 1,  
located in Unit K;  
Kessler and Sheldon-Johnson Well No. 3-B,  
located in Unit E; and  
Kennedy Oil Company-Johnson Well No. 7-B,  
located in Unit O.

(3) That the applicant's proposed waterflood project is offset on the south and on the west by capacity-type waterflood projects.

-2-

CASE No. 2681  
Order No. R-2358

(4) That the applicant's proposed waterflood project area consists of the following-described acreage:

NEW MEXICO PRINCIPAL MERIDIAN

TOWNSHIP 16 SOUTH, RANGE 31 EAST  
Section 28: S/2 NW/4, E/2 SW/4,  
S/2 SE/4

(5) That the proposed waterflood project should be approved and in order to protect correlative rights should be designated a buffer zone with capacity allowables.

(6) That the applicant should be allowed to inject water into the proposed zones through the casing in the Kennedy Oil Company-Federal Well No. 1, but should be required to inject water into the Resler and Sheldon-Johnson Well No. 3-B and the Kennedy Oil Company-Johnson Well No. 7-B through tubing installed in a packer set immediately above the injection zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, Kennedy Oil Company, is hereby authorized to institute a waterflood project in the Square Lake Pool by the injection of water into the Grayburg-San Andres formations through the following wells located in Section 28, Township 16 South, Range 31 East, NEPM, Eddy County, New Mexico:

Kennedy Oil Company-Federal Well No. 1,  
located in Unit K;  
Resler and Sheldon-Johnson Well No. 3-B,  
located in Unit H; and  
Kennedy Oil Company-Johnson Well No. 7-B,  
located in Unit O.

(2) That the project area shall be designated a buffer zone with capacity allowables and shall consist of the following-described acreage:

NEW MEXICO PRINCIPAL MERIDIAN

TOWNSHIP 16 SOUTH, RANGE 31 EAST  
Section 28: S/2 NW/4, E/2 SW/4,  
S/2 SE/4

(3) That the applicant is hereby authorized to inject water through the casing in the Kennedy Oil Company-Federal Well No. 1, but shall inject water only through tubing installed in a packer set immediately above the injection zone in the Resler and Sheldon-Johnson Well No. 3-B and the Kennedy Oil Company-Johnson Well No. 7-B.

-3-  
CASE No. 2681  
Order No. R-2358

(4) 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



*E. L. McChesney*

EDWIN L. MCCHESNEY, Chairman

*E. S. Walker*

E. S. WALKER, Member

*A. L. Porter, Jr.*

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

SEE/

GOVERNOR  
EDWIN L. MECHEM  
CHAIRMAN

State of New Mexico  
**Oil Conservation Commission**

LAND COMMISSIONER  
E. S. JOHNNY WALKER  
MEMBER



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

P. O. BOX 871  
SANTA FE

November 6, 1962

Mr. A. J. Losee  
Losee & Stewart  
Attorneys at Law  
Post Office Drawer 239  
Artesia, New Mexico

Re: Case No. 2681  
Order No. D-2358  
Applicant:  
Kennedy Oil Company

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.  
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC x

Astec OCC       

OTHER Mr. Gray - State Engineer Office

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BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF  
KENNEDY OIL COMPANY FOR A WATERFLOOD  
PROJECT, SQUARE LAKE POOL, EDDY COUNTY,  
NEW MEXICO.

:  
:  
: Case No. 2681  
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:  
:

APPLICATION

COMES KENNEDY OIL COMPANY, by its attorneys, Losee and  
Stewart, and states:

1. That it is the operator of one producing oil well  
and four abandoned oil wells within the Square Lake Field, Eddy  
County, New Mexico, and within the proposed project area cover-  
ed by this application; said project area is described as  
follows:

Township 16 South, Range 31 East, N.M.P.M.

Section 28: S/2 SE/4, E/2 SW/4, S/2 NW/4  
and containing 240 acres, more or less.

2. There is attached hereto and by reference made a  
part hereof, a plat showing the location of the proposed in-  
jection wells and the location of all other wells and leases  
within a radius of two miles from said proposed injection wells.

3. The only producing oil well within said project  
area is located in the NE/4 SW/4 said Section 28 and said well  
is in an advanced or stripper state of depletion.

4. That Applicant proposes to inject water into the now producing or once producing Grayburg and San Andres formations through the following described wells in Section 28, Township 16 South, Range 31 East, N.M.P.M., to-wit:

Kennedy Oil Company - Federal No. 1, NE/4 SW/4 <sup>K</sup>  
Resler and Sheldon - Johnson 3-B, SW/4 NW/4 <sup>E</sup>  
Kennedy Oil Company - Johnson 7-B, SW/4 SE/4. <sup>O</sup>

5. There is attached hereto and by reference made a part hereof, copies of the radioactive log and sample logs on all of the proposed injection wells.

6. There is attached hereto and by reference made a part hereof, a description of the proposed injection well casing and cementing program on the three injection wells.

7. The source of water for this project is Yucca Water Company or other similar companies.

8. That Applicant proposes to inject water into each of the injection wells at an initial pressure of approximately 1500 p.s.i. and at the rate of 500 barrels per day.

9. That Newmont Oil Company is presently operating at capacity allowable a waterflood project in the Square Lake Field immediately to the southwest adjoining Applicant's proposed project area; and therefore, Applicant proposes to conduct its waterflood project with a capacity buffer zone allowable.

10. The approval of this waterflood project will be in the interest of conservation, will prevent waste and the correlative rights will be protected.



WHEREFORE, Applicant prays the orders of the Commission,  
as follows:

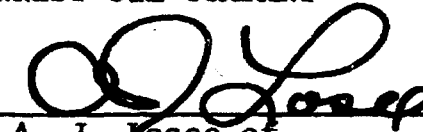
1. That this matter be set for hearing before an  
examiner duly appointed by the Commission and that due notice  
be given thereof, as required by law.

2. That after hearing, an order be entered authorizing  
the Applicant to institute the aforesaid waterflood project  
by the injection of water into the producing or once producing  
Grayburg and San Andres formations through the injection wells  
hereinabove described and that buffer zone treatment with  
capacity allowables be established for the project.

3. And for such other relief as may be just in the  
premises.

KENNEDY OIL COMPANY

By



A. J. Losee of  
LOSEE AND STEWART  
Attorneys at Law  
P. O. Drawer 239  
Artesia, New Mexico.

Case 2681

Heard 10-24-62

Rec. 10-25-62

1. Grant Kennedy's request for a Buffer zone water flood adjacent to a capacity water flood on the south & west. The buffer shall consist of the following acreage in sec 28-16S-31E.

$5/2$  NW/4,  $W/2$  SW/4,  $5/2$  SE/4.

2. The injection wells to be approved for this flood are listed in the application. These should be listed in the Order. The Kennedy #1 well may inject thru casing. The other two wells must inject thru tubing with a packer set just above the injection zone.

Use usual 620 flood order otherwise.

Thos. L. R.



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

October 30, 1962

ADDRESS CORRESPONDENCE TO:  
STATE CAPITOL  
SANTA FE, N. M.

Re: Case 2681

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

Dear Mr. Porter:

Reference is made to the application of The Kennedy Oil Company for a waterflood project in Section 28, Township 16 South, Range 31 East of the Square Lake Pool.

This office has reviewed the casing program of the three proposed injection wells and find it adequate. Therefore, we offer no objection to the granting of the application.

Very truly yours,

S. E. Reynolds  
State Engineer

By: *D. E. Gray*  
D. E. Gray  
Engineer  
Water Rights Division

DEG/ma

cc-Mr. A. J. Losee  
P. O. Drawer 239  
Artesia, N. M.

F. H. Hennighausen

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 24, 1962

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

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

CASE 2646: (Continued)

Application of Texaco Inc., for permission to dispose of salt water, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to dispose of salt water into the Devonian formation through the Shell State of New Mexico "A" Well No. 3, located 990 feet from the South line and 660 feet from the West line of Section 2, Township 11 South, Range 37 East, Echols (Devonian) Pool, Lea County, New Mexico.

CASE 2669: Application of Amerada Petroleum Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its L. M. Lambert Well No. 8, located in Unit B, Section 6, Township 20 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from the Monument Paddock and Monument Blinebry Pools through parallel tapered tubing strings.

CASE 2670: Application of Elwyn C. Hale for a quadruple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the quadruple completion (combination) of his Hale State Well No. 3, located in Unit H of Section 2, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from the Devonian, McKee, Waddell and Ellenburger Pools, North Justis Field, through two strings of 2 7/8 inch casing and two strings of 3 1/2 inch casing all cemented in a common well bore.

CASE 2671: Application of The Pure Oil Company for approval of the Red Hills Unit Agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Red Hills Unit Agreement covering 28,796 acres, more or less, of Federal, State and fee lands in Township 25 South, Ranges 32 and 33 East, and Township 26 South, Range 33 East, Lea County, New Mexico.

- CASE 2672:** Application of Skelly Oil Company for approval of a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the West Dollarhide Queen Sand Unit Agreement comprising 2563 acres, more or less, of State, Federal and fee lands in Townships 24 and 25 South, Range 38 East, Lea County, New Mexico.
- CASE 2673:** Application of Skelly Oil Company for a secondary recovery project, West Dollarhide Queen Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute a secondary recovery project in the West Dollarhide Queen Pool with the injection of water into the Queen formation through 28 wells located in Sections 19, 29, 30, 31, and 32, Township 24 South, Range 38 East, and Sections 4, 5, and 6, Township 25 South, Range 38 East, Lea County, New Mexico, said project to be governed by the provisions of Rule 701.
- CASE 2674:** Application of Texaco Inc. for two non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of two 120-acre non-standard gas proration units in the Eumont Gas Pool, Lea County, New Mexico, the first to comprise the E/2 SE/4 of Section 30 and the NE/4 NE/4 of Section 31, Township 21 South, Range 36 East, to be dedicated to its J. K. Rector Well No. 2, located in Unit P of said Section 30. The second unit would comprise the W/2 SE/4 of Section 30 and the NW/4 NE/4 of Section 31, Township 21 South, Range 36 East, and would be dedicated to its J. K. Rector Well No. 3 located in Unit J of said Section 30.
- CASE 2675:** Application of Shar-Alan Oil Company for an unorthodox well location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks permission to drill its No. 1-A Jicarilla "F" Well No. 160 at an unorthodox well location 2310 feet from the North and East lines of Section 13, Township 23 North, Range 2 West, South Blanco-Pictured Cliffs Pool, Rio Arriba County, New Mexico.
- CASE 2676:** Application of Gulf Oil Corporation for an unorthodox location, and a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Lillie Well No. 3 in the Fowler-Fusselman and Fowler-Ellenburger Pools, Lea County, Mexico. Said well is presently completed in the Fowler-Fusselman Pool at an unorthodox Fowler-Ellenburger location 2310 feet from the North line and 330 feet from the West line

- CASE 2676: of Section 23, Township 24 South, Range 37 East. Applicant (Cont.) proposes to dedicate 40 acres comprising the SW/4 NW/4 of said Section 23 to the Ellenburger completion.
- CASE 2677: Application of Union Producing Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Northwest Lynch Unit Agreement embracing 3040 acres, more or less, of State and Federal lands in Township 20 South, Range 35 East, Lea County, New Mexico.
- CASE 2678: Application of Kern County Land Company for an order establishing special rules and regulations for the East Saunders Permo-Pennsylvanian Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order establishing special rules and regulations for the East Saunders Permo-Pennsylvanian Pool, Lea County, New Mexico, to include provisions for 160 acre drilling and proration units therein.
- CASE 2679: In the matter of the hearing called by the Oil Conservation Commission, on its own motion, to permit R. L. Lusk, Jr., and all interested parties to appear and show cause why the Gulf State Well No. 1, located 1980 feet from the North line and 660 feet from the East line of Section 17, Township 10 South, Range 27 East, NMPM, Chaves County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.
- CASE 2680: In the matter of the hearing called by the Oil Conservation Commission, on its own motion, to permit M. G. Peters Drilling Company and all interested parties to appear and show cause why the Gulf State Well No. 1, located 1650 feet from the North line and 990 feet from the East line of Section 17, Township 10 South, Range 27 East, Chaves County, New Mexico, and the Hightower State Well No. 1, located 846 feet from the South line and 2310 feet from the East line of Section 16, Township 10 South, Range 25 East, Chaves County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.
- CASE 2681: Application of Kennedy Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Square Lake Pool by the injection of water into the Grayburg-San Andres formations through three wells located in Section 28, Township 16 South, Range 31 East. Applicant further seeks the establishment of a capacity buffer zone allowable for the proposed project area which offsets a capacity type flood and comprises the S/2 SE/4, E/2 SW/4, and S/2 NW/4 of said Section 28.

A. J. LOSEE  
EDWARD B. STEWART

LAW OFFICES  
LOSEE AND STEWART  
CARPER BUILDING - P. O. DRAWER 239  
ARTESIA, NEW MEXICO

15 October 1962 OCT 15 11 05

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

Re: Application of Kennedy Oil Company for a  
waterflood project, Square Lake Pool,  
Eddy County, New Mexico, Case No. 2681.

Dear Mr. Porter:

Enclosed herewith is duplicate copies of the subject  
Application which has been set for an examiner hear-  
ing in Santa Fe, New Mexico, on October 24, 1962.

Very truly yours,

  
A. J. Losee

AJL/bk

Enclosures

cc Kennedy Oil Company  
Box 151  
Artesia, New Mexico

Mr. Frank E. Irby, Chief  
Water Rights Division  
State Engineer Office  
Santa Fe, New Mexico

Company, Lease and Well No.	Completion Date	Elevation G.L.	Total Depth	Casing Stub Depth	Casing Sizes	Casing Depth	Cement	Perforations or O.H. Interval
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Resler & Sheldon

Johnson 3B	1-15-45	3989'	3475'	230'	8 5/8"	734'	50 sx	3345'-3475'
				2360'	5 1/2"	3345'	100 sx	
Johnson 5B	3-20-46	4012'	3584'	190'	8 5/8"	827'	50 sx	3452'-3584'
				2500'	5 1/2"	3452'	100 sx	

Kennedy Oil Co.

Federal 1	5-7-58	3995'	4302'	----	8 5/8"	745'	50 sx	3400-04; 3439-49;
			PB 3599	----	4 1/2"	3599'	100 sx	3470-78
Federal 2	7-9-44	3980'	3476'	65'	8 5/8"	728'	50 sx	3352'-3476'
				2200'	5 1/2"	3352'	100 sx	
Johnson 7B	6-20-45	3998'	3733'	42'	8 5/8"	740'	50 sx	3373'-3733'
				1753'	7 "	3373'	100 sx	

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
Applicant EXHIBIT NO. 2  
CASE NO. 2681

Ex 2



KENNEDY OIL COMPANY  
INJECTION WELL  
CASING PROGRAM

Federal #1      Producing Oil Well      Grayburg-San Andres  
8 5/8" casing set @ 745' 50 sx      No SURFACE WATER  
4 1/2"      "      " 3599" 100 sx      Queen Sand 2770-2808 Water  
Propose to inject water down the casing.

Johnson #3      Plugged Oil Well      Grayburg-San Andres  
8 5/8" casing set @ 734' 50 sx      NO SURFACE WATER  
5 1/2"      "      " 3345' 100 sx      Queen Sand 2735-2750 Water  
Propose to run 230' 8 5/8" casing and tie into pipe stub.  
Propose to run 2360' 5 1/2" csg., and tie into pipe stub.  
Propose to set packer on tubing and inject water down tubing.

Johnson #7B      Plugged Oil Well      Grayburg-San Andres  
8 5/8" casing set @ 740' 50 sx      NO SURFACE WATER  
7"      "      " 3373' 100 sx      Queen 2810-2825 Dry  
Propose to run 42' of 8 5/8" casing and tie into pipe stub.  
Propose to run 2360' of 7" casing and tie into pipe stub.  
Propose to set packer on tubing and inject water down tubing.

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
Applicant EXHIBIT NO. 3  
CASE NO. 2681

E13

# KENNEDY OIL COMPANY

Federal 1  
NE $\frac{1}{4}$  SW $\frac{1}{4}$  Sec. 28-16-31  
Eddy County, N.M.  
El. 3995'

0	to	10	Sand
10		15	Caliche
15		130	Red shale
130		210	Blue Shale
210		560	Red rock
560		705	Anhydrite
705		745	Red rock
745		1530	Salt
1530		1685	Salt
1685		1695	Salt
1695		1940	Anhydrite
1940		2110	Anhydrite
2110		2155	Red Rock
2155		2540	Anhydrite
2540		2700	Red rock
2700		2770	Anhydrite
2770		2808	Red Sand (Queen)
2808		2845	Anhydrite
2845		2860	Blue shle
2860		2875	Anhydrite
2875		2940	Anhydrite & shale
2940		3135	Anhydrite
3135		3165	Anhydrite
3165		3230	Lime
3230		3435	Lime
3435		3450	Sandy lime
3450		3490	Pink lime
3490		3500	White lime
3500		3560	White lime
3560		3610	Brown lime
3610		3940	Lime
3940		4140	Brown lime
4160		4170	Gray lime
4170		4298	Gray lime

Oil Shows: 3435-3450; 3485-3500

Sand Fraced

Total Depth 4303 Plugged Back to 3599

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
*Applicant* EXHIBIT NO. 4  
CASE NO. 2681

E 1 4

# KENNEDY OIL COMPANY

Johnson 3B  
SW $\frac{1}{4}$  NW $\frac{1}{4}$  Sec 28-16-31  
Eddy County, N.M.  
El. 3989'

0	to	20	Sand
20		570	Red rock
570		700	Anhydrite
700		735	Red rock
735		737	Anhydrite
737		1695	Salt
1695		1765	Anhy & red rock
1765		1890	Anhy & red rock
1890		2130	Anhydrite
2130		2630	Anhy & shale
2630		2660	Anhy & lime
2660		2735	Anhy & shale
2735		2750	Red Sand (Queen)
2750		3143	Anhy & lime
3143		3376	Lime
3376		3382	Sand
3382		3396	Lime
3396		3401	Pink lime
3401		3465	Lime
3465		3475	White Lime

Oil Shows: 3376-82; 3428-3440; 3444-3465

Shot 180qts 3373-3465

Total Depth 3475

# KENNEDY OIL COMPANY

Johnson 7B  
SW $\frac{1}{4}$  SE $\frac{1}{4}$  Sec 28-16-31  
Eddy County, N.M.  
El. 3998'

0	to	70	Caliche & sand
70		595	Red rock
595		740	Anhydrite
740		1735	Salt
1735		1780	Anhydrite
1780		1800	Red rock
1800		1945	Anhydrite
1945		1980	Red rock
1980		2810	Anhydrite
2810		2825	Red sand (Queen) dry
2825		3200	Anhydrite
3200		3440	Lime
3440		3469	Sandy lime
3469		3472	Sand
3472		3500	Sandy lime
3500		3526	Lime
3526		3693	White lime
3693		3711	Sandy lime
3711		3733	Lime

Oil Shows: 3457-3500; 3693-3711

Shot 220 Qts. 3457-3504

Total Depth 3733

October 17, 1962

Messrs. Losce & Stewart  
Attorneys at Law  
P. O. Drawer 239  
Artesia, New Mexico

Attn. Mr. A. J. Losce

Dear Mr. Losce:

I received this morning a copy of your letter to Mr. A. L. Porter, Jr., referring to the application of Kennedy Oil Company for waterflood project, Square Lake Pool, Eddy County, New Mexico, Case No. 2881. Enclosed with the letter is a copy of the casing program in each of three wells, copies of logs on five different wells and a map titled Kennedy Oil Company, Square Lake Field, Eddy County, New Mexico, Flood No. 3. The map bears no legend and therefore I am unable to learn anything from it. No copy of the application to the Oil Commission was enclosed, therefore I have no knowledge of the proposal of Kennedy Oil Company.

I am a bit confused by the fact that the casing program only lists three wells and you have sent five logs. I wonder if there are to be only three injection wells in the flood at this time. It would be advantageous for both of us, I believe, if I could have more detailed information as to what the proposal of the Kennedy Oil Company is before the case comes up for hearing on October 24th.

Yours very truly,

S. E. Reynolds  
State Engineer

By:  
Frank E. Irby  
Chief  
Water Rights Division

FBI/ma  
cc-Mr. A. L. Porter, Jr.

C  
O  
P  
Y

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
October 24, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Kennedy Oil Company for a water-  
flood project, Eddy County, New Mexico. Applicant, )  
in the above-styled cause, seeks authority to )  
institute a waterflood project in the Square Lake )  
Pool by the injection of water into the Grayburg- )  
San Andres formations through three wells located )  
in Section 28, Township 16 South, Range 31 East. )  
Applicant further seeks the establishment of a )  
capacity buffer zone allowable for the proposed )  
project area which offsets a capacity type flood )  
and comprises the S/2 SE/4, E/2 SW/4, and S/2 )  
NW/4 of said Section 28. )

CASE 2681

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: The first case on the docket will be 2681.

MR. DURRETT: Application of Kennedy Oil Company for  
a waterflood project, Eddy County, New Mexico.

MR. LOSEE: A. J. Losee, Losee and Stewart, Artesia.  
I have one witness.

MR. UTZ: Are there other appearances in this case?  
You may proceed.

(Witness sworn.)

(Whereupon, Applicant's Exhibits  
Nos. 1 through 4 marked for  
identification.)

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1162

SANTA FE, N. M.  
PHONE 983-3971

ALBUQUERQUE, N. M.  
PHONE 243-6691



ROBERT B. KENNEDY

called as a witness, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. LOSEE:

Q State your name, residence and occupation.

A Robert B. Kennedy; residence, Artesia, New Mexico; oil producer.

Q Have you previously testified before this Commission?

A Yes, I have.

Q That was back in about 1947?

A Roughly.

MR. LOSEE: Mr. Utz, would you like for me to go through his qualifications?

MR. UTZ: No, I believe if he qualified then, he should be qualified by now.

MR. LOSEE: All right, sir.

Q= (By Mr. Losee) Please refer to what has been marked Exhibit No. 1, and state what it portrays.

A Exhibit No. 1 is a map of our proposed project area upon which is outlined the proposed injection wells and the producing locations that we are submitting before the Commission at this time.

Q Does that show the continuation of a regular five-spot pattern?

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A Yes, it is in exact accord with existing floods adjacent to us.

Q Are the existing floods to the south and to the west?

A There are existing floods to the south and west.

Q How many producing wells are there within your project area?

A Two producing wells; that is, producing wells currently?

Q Yes, sir.

A Just one producing currently.

Q Are there some abandoned holes in the project area?

A There are three abandoned holes.

Q What is the location of the producing well?

A The producing well is located in the Northeast of the Southwest of Section 28.

Q What is the average production of this well per day?

A Five to six barrels at the present time.

Q In your opinion, is this well in an advanced or stripper state of depletion?

A It's in the advanced or stripper state.

Q Were these abandoned wells once producing wells?

A Yes, they were.

Q Have you calculated the total cumulative production from your producing well and your abandoned wells?

A That comes to 80,948 barrels.

Q Up to what date was that calculation made?





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A October 1st, 1962.

Q Have you made an estimate as to the amount of secondary oil that would be recovered from your project area by reason of the waterflooding?

A We have, and we come up with a figure of 158,924 barrels.

Q That is oil that would not be recovered by primary?

A That's right.

Q Please refer to what has been marked Exhibit 2 and state the matter contained therein.

A Exhibit 2 is a resume of our producing well and abandoned wells, showing completion dates, elevation, total depths, casing depths, amount of cement, perforations or open hole interval; and in the case of wells that have been plugged previously, the casing stubbed depths.

Q What formation is your producing well producing from?

A The Grayburg-San Andres.

Q That is shown on this exhibit as the Federal No. 1?

A That is right.

Q Those perforations are both in the Grayburg-San Andres?

A San Andres open hole.

Q What formations did the abandoned wells produce from when they were producing?

A Grayburg and San Andres.

Q And that is the perforation or open hole interval shown



on this exhibit?

A Right.

Q You propose to inject water into what wells?

A Water will be injected in three wells. It will be the Johnson 3-B, the Federal 1, and Johnson 7-B.

Q Kennedy Oil Company is the operator of all of the locations within this project area?

A That is right.

Q What formation do you propose to inject your water in through these wells?

A Into the Grayburg-San Andres formations.

Q What proposed casing program have you outlined for these three injection wells?

A Federal No. 1 is a producing well, and we will inject directly down the 4-1/2 casing. This was new pipe, having been run in 1958. The Johnson No. 3 Well has been a plugged oil well, and we propose to tie in the 8-5/8 and the 5-1/2 and run tubing and have a packer on tubing and inject water down tubing. Johnson 7-B, having been a plugged oil well, we will again tie in 8-5/8 and 7-inch and run a packer on tubing.

Q And inject through the tubing?

A Inject through the tubing, that's right.

MR. UTZ: Where will these packers be set?

A A joint or so above the shoe is our normal procedure.

Q (By Mr. Losee) Is there any fresh water or any surface

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water available in this area?

A There is none. I was on most of the original wells when they were drilled with cable tools in early days. We were looking for fresh water and we had a camp in the area, and we never found any fresh water in this area.

Q Your company, in addition to these wells, drilled and completed other wells in this Square Lake Pool, did they?

A Twenty-five or thirty.

Q Do you feel like your proposed casing program will adequately protect any water that might be in the area?

A Well, since there is no water, we are still going to run casing and have it under control. It certainly would.

Q Please refer to what has been marked as Exhibit 4 and state what it portrays.

A Exhibit 4 is a sequence of sample logs covering the wells in question. The logs again are gathered from sources of the O. C. C. and the U. S. G. S.

Q Did you furnish the Commission with any radioactive logs?

A Yes, we did on our Federal No. 1 Well.

Q Is that the only well upon which you have such a log?

A That's the only well upon which we have a radioactive log.

Q What is the source of water for this proposed project?

A Yucca Water Company.



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Q You intend to purchase water from them?

A And we will deal with pressure water in conjunction with Newmont.

Q Have you made an estimate as to the initial pressures and rates at which you propose to inject water into these wells?

A 1500 pounds per square inch, and 500 barrels per well per day.

Q Is Newmont Oil Company operating a waterflood project immediately adjoining your project area to the south and west?

A Yes, they are.

Q Is their project under flood at this time?

A Yes, sir.

Q Referring momentarily back to your Exhibit 1, I will ask you if Newmont now has under flood within their project area the West Half Southwest Quarter of Section 28, the entire East Half of Section 29 in Township 16 South, Range 31 East?

A That is all under flood or converted, in the process of being converted at the present time.

Q Was their initial flood project authorized before the adoption of Rule 701 of the Oil Commission?

A That's right.

Q So that that flood is actually operating at capacity rates?

A Yes, sir.

Q Would it be possible for your company to offset this



capacity flood with a restricted allowable flood and protect the correlative rights?

A No.

Q Do you request the Commission to authorize this water-flood project with a capacity buffer zone allowable?

A I do.

Q Is this proposed waterflood project in the interest of conservation, and will it recover oil by secondary methods which would not otherwise be recovered?

A Very definitely.

MR. LOSEE: I move the introduction of Applicant's Exhibits 1 through 4.

MR. UTZ: Without objection, Applicant's Exhibits 1 through 4 will be entered into the record of this case.

MR. LOSEE: That is all of the testimony. I would like to make a statement, if I may, with respect to the State Engineer's Office. We mailed him, when the application was filed, a copy of these exhibits, except the base map was not colored in and apparently we didn't give him a copy of the application, because Mr. Irby corresponded with me last week and I sent him the application. I feel like from past experience that this casing program as outlined will be satisfactory. However, if he does have objection to it, and he is not available at this time, if he'll contact me I'm sure we can arrive at satisfactory --

MR. UTZ: The State Engineer's Office has a represent-

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ative present.

MR. LOSEE: Oh, do they? Maybe he has examined the application. I think that's all I have at this time.

CROSS EXAMINATION

BY MR. UTZ:

Q I would like to go through the location of the adjoining waterflood here.

A Yes, sir.

Q Somewhere I got Section 28. It isn't involved in this, is it?

A Yes, sir.

Q You meant Section 29?

A No, sir.

Q Is the West Half of 29 part of the capacity flood at the present time?

A The West Half of 29 is part of Newmont's capacity flood, yes, sir.

Q How about the West Half -- I meant the East Half of 29.

A Yes, sir, that is part of Newmont's capacity flood.

Q How about the West Half of Southwest Quarter of 28?

A The West Half of Southwest Quarter of 28 is under capacity flood.

Q How about the North Half of 33?

A That is under capacity flood.

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Q So you are contiguous to capacity waterflood in all the west and south part?

A Yes.

Q In regard to your Federal No. 1 which is the only well in which you propose to inject water through the casing, is that correct?

A Yes, sir.

Q That casing is set at 3599 with a hundred sacks?

A Yes, sir.

Q The top of the Queen sand is 2770 to 2808?

A That's right.

Q And you'll be injecting through perforations?

A Through perforations and there is a section of open hole opening the Lovington sand from that well.

Q In the bottom of the well?

A Yes, sir.

Q You don't intend to plug that back?

A No, we'll inject into that and the Grayburg also, which is concurrent with the floods adjacent to us.

Q How much open hole do you have in that well?

A Approximately ten feet. It's a well that was originally drilled to 4300, and then plugged back, originally having been a dry hole on that well.

Q The No. 3 Well, will it be injecting into open hole also?



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A That will be an open hole injection, yes, sir, altogether.

Q And the 7-B?

A The 7-B will be open hole injection.

Q Do you intend to go into the No. 2 Well and make a producer out of it?

A Yes, sir, we have a spudder on it right at the moment.

Q And you will also produce out of the No. 5?

A No. 5 will be a producer.

Q Do you intend to drill a well in the Southeast Quarter of the Northwest Quarter?

A It's very likely as economic feasibility sets in that we will drill that location.

Q Then the locations described in your application are correct, are they, for the three injection wells proposed?

A Those are correct.

MR. UTZ: Are there other questions of the witness?  
Will you give your name to the reporter?

MR. GRAY: B. E. Gray, State Engineer's Office.

BY MR. GRAY:

Q These questions pertain to Federal No. 1. When was this well drilled?

A The well was originally drilled, approximately, the completion date was October the 25th, 1943, according to the records.





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Q Was the cement circulated to the surface on the 8-5/8 inch casing?

A No, sir, according to records there was 50 sacks of cement.

Q Is there an approximate rise on that, what the elevation will be?

A Well, the elevation -- you mean the rise of the column of cement is what you are interested in?

Q Yes.

A Well, in a 10-inch hole, I would estimate we had, oh, say 200 feet rise.

Q Why isn't it necessary to inject through a tubing and packer in this well as you have suggested on No. 3 and 7-B?

A If we didn't have a tight casing string that would withstand the pressure that was imposed, it would be necessary; and in the event the casing would not stand it or any abnormal condition would come about, we would immediately run a packer on tubing. But this was just re-completed in 1958 with a new string of pipe, and we feel that we're in better shape than most of the injection wells where they are injecting down the casing in that vicinity.

MR. UTZ: You said 1950?

A '58.

MR. UTZ: Excuse me.

A Yes, sir.



MR. UTZ: You are not producing this well with tubing at the present time?

A Yes, we are on the No. 1 Federal.

MR. UTZ: You intend to salvage that tubing?

A Well, we'd use it somewhere else. That is, as long as we have no trouble and everything is concurrent, that we are not losing any water anywhere, since we have a new string of casing we are not worried; course, we're quick to rectify a situation that's not operating efficiently. That goes back to the operator again, where it meets up with a situation that is adverse.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Are there statements in this case? The case will be taken under advisement.

\* \* \* \* \*

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STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO ) ss

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing was reported by me in stenotype, and that the same is a true and correct record of said proceedings to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 19th day of November, 1962, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

*Ada Dearnley*  
NOTARY PUBLIC

My Commission Expires:  
June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7081, heard by me on October 24, 1962.

*Thurs. G. [Signature]* Examiner  
New Mexico Oil Conservation Commission

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