

CASE 3994: Application of KENNEDY
OIL CO. FOR AN AMENDMENT TO
ORDER R-2752, Eddy County, N.M.

Case Number

3994

Application

Transcripts.

Small Exhibits

ETC.



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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMAS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
December 11, 1968

EXAMINER HEARING

IN THE MATTER OF:)

Application of Kennedy Oil)
Company for an amendment to)
Order No. R-2752, Eddy County,)
New Mexico.)

CASE NUMBER
3994

BEFORE:

ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3994.

MR. HATCH: Case 3994, application of Kennedy Oil Company for an amendment to Order No. R-2752, Eddy County, New Mexico.

MR. UTZ: Any other appearances:

(Whereupon, Applicant's Exhibits 1-5 were marked for identification.)

(Witness sworn.)

ROBERT KENNEDY

called as a witness by the applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

MR. KENNEDY: I am Robert Kennedy, with Kennedy Oil Company, representing ourselves in this case.

I live in Artesia, New Mexico. I am appearing to seek an amendment to Order Number R-2752, which I previously testified upon, which authorized a waterflood project in the Square Lake Pool, Eddy County, New Mexico, and to delete the water injection well previously authorized in Unit L of Section 20, Township 16 South, Range 31 East, and to authorize in lieu thereof a well in Unit K of Section 20.

At this time I will refer to our Unit Number 1. This exhibit is a map of the Square Lake area in which we

operate. The lease in question is the north half of the southwest of the said Section 20, and is outlined in red. We have two producing wells on the lease at the present time, our Number 1 and Number 2 Raleigh Federal, and there is one dry hole drilled in the early days, which is a plugged well at the present time. This was the basis of the waterflood order, R-2752, this 180-acre tract here.

You will note on this particular map, we have circled wells of Anadarko, which is an offset operator. There will probably be a hearing next month on the rest of this projected area. What we are trying to do is to set the pattern up that will be consistent to the pattern that is established in the field at the present time.

I will now refer to Exhibit Number 2. Exhibit Number 2 shows the cumulative production of the two wells in question, and the average monthly production for the months of October and November, 1968, and the total production produced from each proration unit.

Now I refer to Exhibit Number 3. Exhibit Number 3 shows the completion dates, total depths, and the casing sizes, and amount of cement, and the perforations for open-hole for each well in the questioned area.

I now refer to Exhibit Number 4. Exhibit Number 4

is a sonic gamma ray log of the Raleigh Federal Number 1, which is the well we wish to convert to injection in lieu of our Raleigh Number 2 Well. As you will note from the log there, it is the Grayburg-San Andres Formation. The producing member in the Grayburg is the Premier Sand Section. We have some thirty-odd feet in this particular well here at two distinct intervals on that. The perforations were limited entry when this Raleigh was originally completed in 1964, having three five-eighth holes in the first section, and three five-eighth holes in the second section.

The next producing zone is the Lovington Sand, which is approximately twelve feet thick, and there again it is a perforated limited entry, having six five-eighth holes in it.

I now refer to Exhibit Number 5. Exhibit Number 5 is a schematic drawing of our Raleigh Number 1 Well, which is proposed for injection well. On this schematic drawing, we show our casing sizes, amount of cement, perforations, and our packer setting program of this proposed injection well. We propose to set up five-and-a-half inch tension packer at approximately 3,370 feet, and isolate injection into the Premier Sand and the Lovington Sand. The reason for isolation is, we have found in this area from experience it takes

approximately 360 additional PSI to place water into the Lovington Sand in this area, and as we proceed on these projects, we do have to put additional pressure to the Lovington Sand to get oil movement in this area. The cement around the five-and-a-half is estimated to be around 2,250, so our packer setting is well below the top of the estimated top of cement. The casing when run was five-and-a-half fourteen pound J-55 new seamless National casing.

On this injection well, initially we have the program set up to put in approximately 250 barrels a day. Pressures will range initially from vacuum to a proposed maximum of 2,500 pounds per square inch. Prior to converting this to an injection well, we will run a packer and test the casing to 3,000 pounds per square inch. If any failure occurs, we would repair, if at all feasible, the casing and proceed with our scheduling program. Water source is from a commercial water company, and goes from the Ogallala Formation. Our pressured water will come from the Anadarko system located to the south. Produced water will be returned, treated and re-ejected if and when it is produced.

We estimate life of the project is ten years, more or less, there again depending on the economics. I estimate we

will recover 50,000 barrels of oil from our Number 2 Well, making the Number 1 an injection well, and with the additional injection wells that will be added by offset operators. By holding this established pattern that has already been set, and making the Number 1 Well instead of the Number 2 Well an injection well, I believe that there is no question but what we will recover oil over and above what could be recovered had we not changed this program. That in turn will prevent waste, and we in turn will protect correlative rights at the same time.

I introduce Exhibits 1 through 5.

MR. UTZ: Without objection, Exhibits 1 through 5 will be entered into the record.

(Whereupon, Applicant's Exhibits 1-5 were admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q What was the top of the cement on your five-and-a-half?

A 2,250, estimated.

Q You intend to use plain tubing?

A Yes, sir, two-inch EUE.

Q How would you handle your reinjected water?

A Reinject water will return to Anadarko's plant

and be treated as necessary.

MR. UTZ: Any other questions? You may be excused.

(Witness excused.)

MR. UTZ: Are there any other statements? We will
take the case under advisement.

I N D E XWITNESSPAGE

ROBERT KENNEDY

Cross Examination by Mr. Utz

6

E X H I B I T SNUMBERMARKED FOR
IDENTIFICATIONOFFERED AND
ADMITTED IN
EVIDENCE

Exhibits 1-5

2

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STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

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

Witness my Hand and Seal this 2nd day of January, 1969.

Sam Mortelette
 NOTARY PUBLIC

My Commission Expires:

December 6, 1972

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Bernalillo hearing of Case No. 3294
 heard by me on Dec. 11, 1968.
Ernest A. J. [Signature]
 New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

December 16, 1968

C
Mr. Robert B. Kennedy
Kennedy Oil Company
Post Office Box 151
Artesia, New Mexico 88210

O
Dear Sir:

Enclosed herewith is Order No. R-2752-A entered in Case No. 3994, amending Order No. R-2752 to authorize water injection into your Rowley Federal Well No. 1.

P
Injection is to be into the Lovington Sand through 2-inch tubing installed in a packer at 3370 feet. Injection into the Premier Sand is to be through the casing-tubing annulus. All of the water injected down the casing-tubing annulus shall be either fresh water or recycled water, in which latter event the water shall be treated to prevent corrosion.

Y
Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/DSN/lr

Enclosure

cc: Oil Conservation Commission
Artesia, New Mexico

Kennedy Oil Company

— OIL PRODUCERS —

P. O. Box 151

Artesia, New Mexico

November 21, 1968

NOV 22 1968

Case 3994

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico

Attention: Mr. A.L. Porter, Jr., Secretary Director

Dear Sir:

A recent meeting of representatives of Anadarko Production Company, Newmont Oil Company, and Kennedy Oil Company was held to discuss the placing of wells not currently in water flood projects, in Sections 19 & 20, of Township 16 South, Range 31 East, in active lease line cooperative water flood projects.

On August 3, 1964, Kennedy Oil Company was given approval by your Order No. R-2752 for a buffer zone water flood project, covering the N/2 SW/4 of Section 20, T-16S, R-31E N.M.P.M., Eddy County, New Mexico.

This Order specified that water injection would be through one injection well located in Unit L of said Section 20, T-16S, R-31E.

To conform with the regular injection pattern in this area we hereby request administrative approval to convert our Rowley Federal No. 1 (Unit K) well, located 1980' FWL & 1650' FSL of Section 20, T-16S, R-31E to a water injection well in lieu of said water injection well authorized in Unit L of Section 20, T-16S, R-31E.

We are enclosing a legend map of this area, and a schematic drawing of our proposed injection well.

Copies of this application are being furnished offset operators, Anadarko, Newmont and Murphy Baxter.

Your approval to convert our Rowley Federal #1 (Unit K) to water injection by administrative order will be appreciated.

Very truly yours,

Kennedy Oil Company

Robert B. Kennedy
Robert B. Kennedy

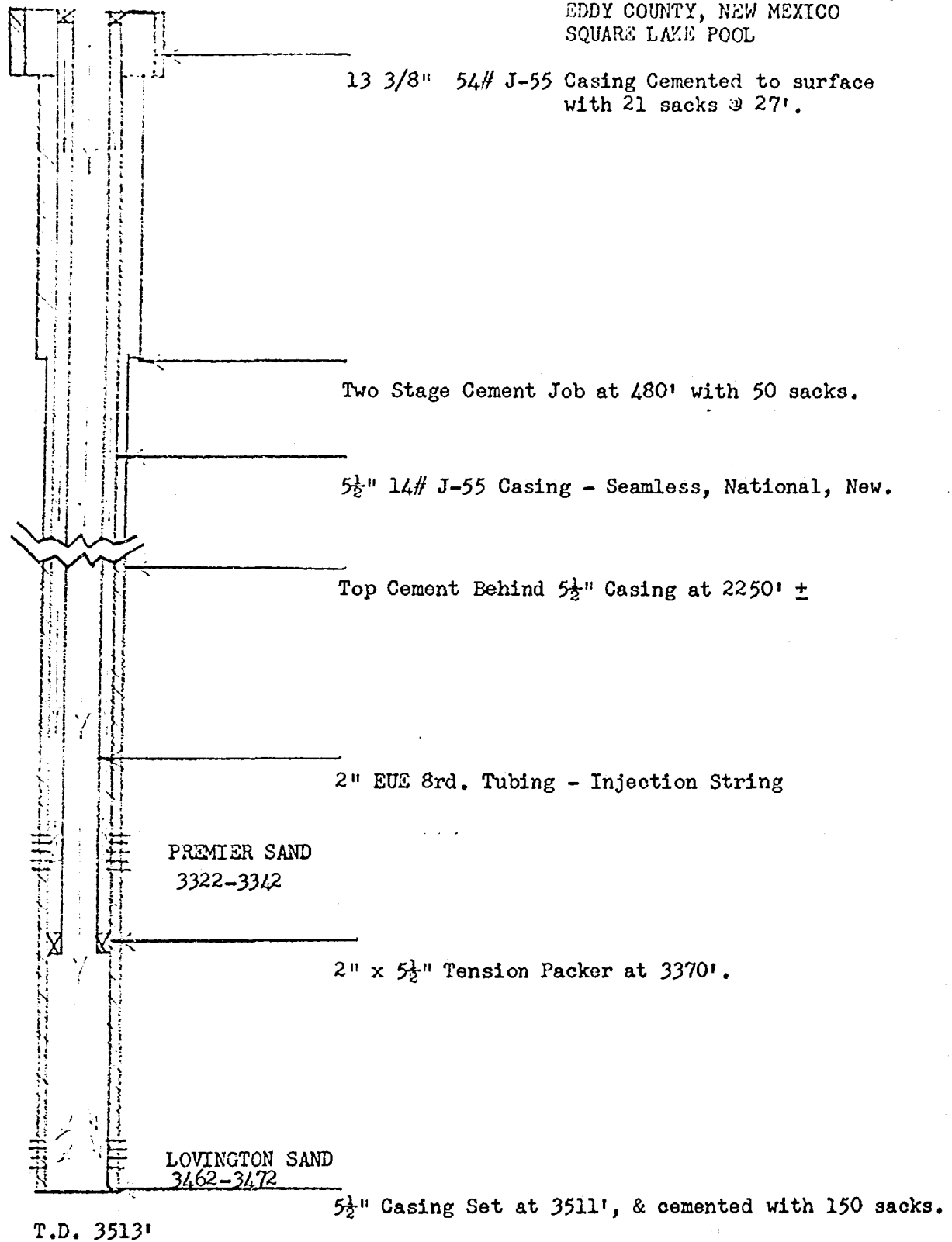
cc: Anadarko Production Co.
Newmont Oil Co.
Murphy Baxter

DOCKET MAILED

Date 11-26-68

SCHEMATIC DRAWING OF INJECTION WELL

KENNEDY OIL COMPANY - ROWLEY #1
NE 1/4 SW 1/4 Section 20, T-16S, R-31E
EDDY COUNTY, NEW MEXICO
SQUARE LAKE POOL



Case 3994

Case 3994

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. 3038
Order No. R-2752

APPLICATION OF KENNEDY OIL COMPANY
FOR A WATERFLOOD PROJECT AND FOR
DESIGNATION OF A WATERFLOOD BUFFER
ZONE, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 1, 1964, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 3rd day of August, 1964, 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, Kennedy Oil Company, seeks permission to institute a waterflood project in the Square Lake Pool by the injection of water into the Grayburg-San Andres formation through one injection well located in Unit L of Section 20, Township 16 South, Range 31 East, NMPM, Eddy County, New Mexico.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

CASE No. 3038
Order No. R-2752

(5) That the applicant further proposes that the N/2 SW/4 of said Section 20 be designated a waterflood buffer zone inasmuch as it directly offsets a capacity-type waterflood project immediately south.

(6) That approval of the proposed buffer zone will afford the applicant the opportunity to produce its just and equitable share of the oil in the pool.

(7) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations, provided however, that capacity allowables should be assigned to the wells in the N/2 SW/4 of said Section 20.

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 formation through one of the following-described wells in Township 16 South, Range 31 East, NMPM, Eddy County, New Mexico:

Kennedy Oil Company Rowley-Federal Well No. 1,
located 1980 feet from the South line and
660 feet from the West line of Section 20

or

Kennedy Oil Company Rowley-Federal Well No. 2,
located 1650 feet from the South line and
990 feet from the West line of Section 20.

(2) That the subject waterflood project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations, provided however, that the N/2 SW/4 of Section 20, Township 16 South, Range 31 East, NMPM, Eddy County, New Mexico, is hereby designated a waterflood buffer zone wherein water can be injected and wells produced at rates comparable with the waterflood project in the S/2 SW/4 of said Section 20.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

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CASE No. 3038

Order No. R-2752

(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

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

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

S E A L

esr/

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. 3994
Order No. R-2752-A

APPLICATION OF KENNEDY OIL COMPANY
FOR AN AMENDMENT TO ORDER NO. R-2752,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 11, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 16th day of December, 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 by Order No. R-2752, dated August 3, 1964, the applicant, Kennedy Oil Company, was authorized to institute a waterflood project in the Square Lake Pool by the injection of water into the Grayburg-San Andres formation through one of the following-described wells in Township 16 South, Range 31 East, NMPM, Eddy County, New Mexico:

Kennedy Oil Company Rowley-Federal Well No. 1,
located 1980 feet from the South line and
660 feet from the West line of Section 20

or

Kennedy Oil Company Rowley-Federal Well No. 2,
located 1650 feet from the South line and
990 feet from the West line of Section 20.

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CASE No. 3994
Order No. R-2752-A

(3) That the applicant now seeks amendment of said Order No. R-2752 to delete the water injection well authorized therein and to authorize for water injection in lieu thereof its Rowley Federal Well No. 1, located in Unit K of said Section 20.

(4) That approval of the subject application will not violate correlative rights and should increase the efficiency of the waterflood project and should result in greater ultimate recovery of oil, thereby preventing waste.

IT IS THEREFORE ORDERED:

(1) That Order (1) of Order No. R-2752, dated August 3, 1964, is hereby amended to read in its entirety as follows:

"(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 formation through its Rowley Federal Well No. 1, located in Unit K of Section 20, Township 16 South, Range 31 East, NMPM, Eddy County, New Mexico."

(2) That Order No. R-2752 in all other respects shall remain the same.

(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.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


CLAYTON B. HAYS, Member


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


esr/

CASE 3993: Application of Coastal States Gas Producing Company for the creation of a new oil pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian oil pool to be designated the North Baum-Upper Pennsylvanian Pool comprising the following-described lands:

Tbwnship 13 South, Range 33 East, Lea County, N. Mex.
Section 19: E/2
Section 20: NW/4 and S/2
Section 21: SW/4

and for the promulgation of temporary special rules therefor, including a provision for 160-acre spacing and proration units and the assingment of 80-acre allowables.

Applicant further seeks the contraction of the Lazy J-Pennsylvanian Pool by the deletion from said pool of the E/2 of Section 20 and the W/2 and SE/4 of Section 21, both in Township 13 South, Range 33 East, Lea County, New Mexico.

CASE 3994: Application of Kennedy Oil Company for an amendment to Order No. R-2752, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-2752, which authorized a waterflood project in the Square Lake Pool, Eddy County, New Mexico, to delete the water injection well previously authorized in Unit L of Section 20, Township 16 South, Range 31 East, and to authorize in lieu thereof a well in Unit K of said Section 20.

CASE 3995: Application of Continental Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle, by means of dual-flow downhole choke equipment, production from the Maljamar-Abo Pool and the Baish-Wolfcamp Pool in the wellbores of its Baish "A" Wells Nos. 12 and 13 located, respectively, in Unit A of Section 21 and Unit E of Section 22, both in Township 17 South, Range 32 East, Lea County, New Mexico, with the provision that no more than one single allowable be produced from each of said wells.

ACCUMULATIVE OIL PRODUCTION
KENNEDY OIL COMPANY
ROWLEY LEASE

Proration Unit	Accumulative to 9-1-68	October 1968	November 1968	Total Production from Proration Unit
<u>Sec. 20, T-16S, R-31E</u> NE/4 SW/4 Rowley # 1	19,411	90	91	19,592
NW/4 SW/4 Rowley #2	11,912	93	90	12,095

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION

EXHIBIT NO. 2

CASE NO. 3994

KENNEDY OIL COMPANY
N.M. ROWLEY LEASE
EDDY COUNTY

N/2 SW/4 Section 20-16S-31E
Square Lake Pool

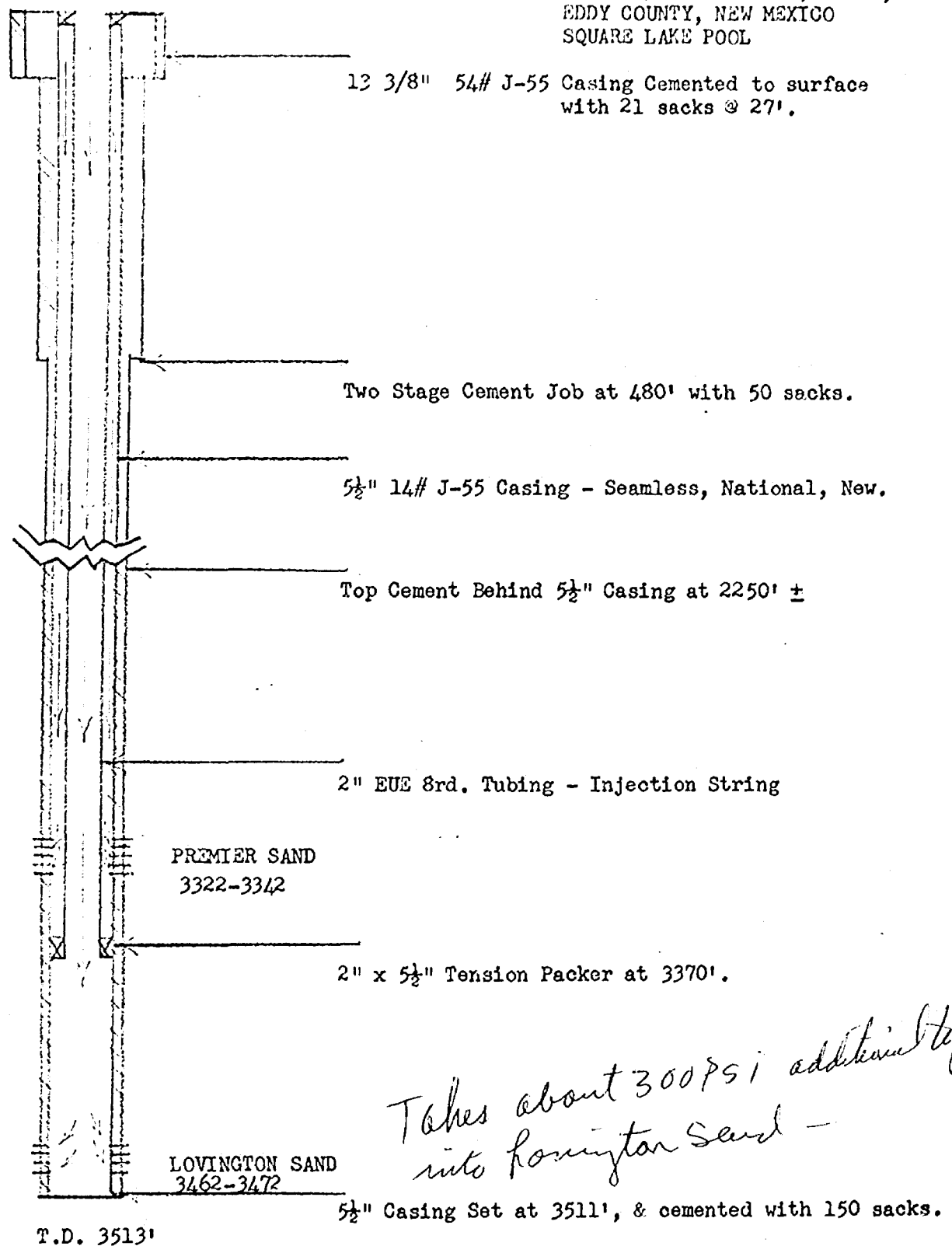
LEASE & WELL NO.	COMPLETION DATE	ELEVATION	T.D.	SIZES	CASING DEPTH	CEMENT	PERFORATIONS OR O.H.
Rowley #1-K	2-5-64	3940	3513	13 3/8 5 1/2	27' 3511'	21 sx 200 sx	3322-3472
Rowley #2-L	3-26-64	3939	3500	13 3/8 5 1/2	28' 3494	22 sx 200 sx	3291-3440
Rowley #1-L*	12-19-44	3938	3420	8 5/8 5 1/2	645' 2974	50 sx 100 sx	2974-3420

* P&A 1945

BEFORE EXAMINER USE
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 3994

SCHEMATIC DRAWING OF INJECTION WELL

KENNEDY OIL COMPANY - ROWLEY #1
NE 1/4 SW 1/4 Section 20, T-16S, R-31E
EDDY COUNTY, NEW MEXICO
SQUARE LAKE POOL



BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 3994

*250 BWP
initially at vacuum
produced into well
in 1960-1961
100% recovery*

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 3994

Order No. R-2752-A

Don
APPLICATION OF KENNEDY OIL COMPANY
FOR AN AMENDMENT TO ORDER NO. R-2752,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 11, 1968,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this _____ day of December, 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 by Order No. R-2752, dated August 3, 1964, the
applicant, Kennedy Oil Company, was authorized to institute a
waterflood project in the Square Lake Pool by the injection of
water into the Grayburg-San Andres formation through one of the
following-described wells in Township 16 South, Range 31 East,
NMPM, Eddy County, New Mexico:

Kennedy Oil Company Rowley-Federal Well No. 1
located 1980 feet from the South line and
660 feet from the West line of Section 20

or

Kennedy Oil Company Rowley-Federal Well No. 2,
located 1650 feet from the South line and
990 feet from the West line of Section 20.

(3) That the applicant now seeks amendment of said Order No. R-2752 to delete the water injection well ~~previously~~ authorized therein and to authorize for water injection in lieu thereof its Rowley Federal Well No. 1, located in Unit K of said Section 20.

(4) That approval of the subject application will not violate correlative rights and should increase the efficiency of the waterflood project and should result in greater ultimate recovery of oil, thereby preventing waste.

IT IS THEREFORE ORDERED:

(1) That Order (1) of Order No. R-2752, dated August 3, 1964, is hereby amended to read in its entirety as follows:

"(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 formation through its Rowley Federal Well No. 1, located in Unit K of Section 20, Township 16 South, Range 31 East, NMPM, Eddy County, New Mexico."

~~(2) That the subject waterflood project is hereby designated the _____ Waterflood Project.~~

(2) That Order No. R-2752 in all other respects shall remain the same.

(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.