

CASE 3420: Application of STANDARD  
OIL CO. OF TEXAS for an unorthodox  
gas well location, Eddy County.

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Case Number

3420

Application  
Transcripts.

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. 3420  
Order No. R-3087**

**APPLICATION OF STANDARD OIL COMPANY  
OF TEXAS FOR AN UNORTHODOX GAS WELL  
LOCATION, EDDY COUNTY, NEW MEXICO.**

**ORDER OF THE COMMISSION**

**BY THE COMMISSION:**

This cause came on for hearing at 9 a.m. on June 29, 1966,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 11th day of July, 1966, 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, Standard Oil Company of Texas,  
seeks an exception to the Special Rules and Regulations for the  
Atoka-Pennsylvanian Gas Pool to drill a gas well at an unorthodox  
location 1650 feet from the North line and 990 feet from the East  
line of Section 15, Township 19 South, Range 26 East, NMEN, Eddy  
County, New Mexico.

(3) That the Special Rules and Regulations governing the  
Atoka-Pennsylvanian Gas Pool provide that each well completed or  
recompleted in said pool shall be located in the northwest quarter  
or the southeast quarter of the section and shall be located no  
nearer than 330 feet to any governmental quarter-quarter section  
line.

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CASE No. 3420  
Order No. R-3087

(4) That the evidence establishes that the productivity of a well at a standard location in the NW/4 of said Section 15 is doubtful.

(5) That the evidence establishes that 252 acres of a standard 320-acre proration unit dedicated to a well at an unorthodox location in the NE/4 of said Section 15 can reasonably be presumed to be productive of gas from said pool.

(6) That a standard 320-acre gas proration unit for said pool, comprising the N/2 of said Section 15, should be dedicated to said well.

(7) That an acreage factor for proration purposes of 252/320 or 0.79 should be assigned to said well.

(8) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the Atoka-Pennsylvanian Gas Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Standard Oil Company of Texas, is hereby granted an exception to the well location requirements of the Special Rules and Regulations governing the Atoka-Pennsylvanian Gas Pool and is hereby authorized to drill a gas well at an unorthodox location 1650 feet from the North line and 990 feet from the East line of Section 15, Township 18 South, Range 26 East, NMPM, Eddy County, New Mexico.

(2) That a standard 320-acre gas proration unit for said pool, comprising the N/2 of said Section 15, shall be dedicated to said well.

(3) That an acreage factor for proration purposes of 252/320 or 0.79 shall be assigned to said well.

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CASE No. 3420  
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(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

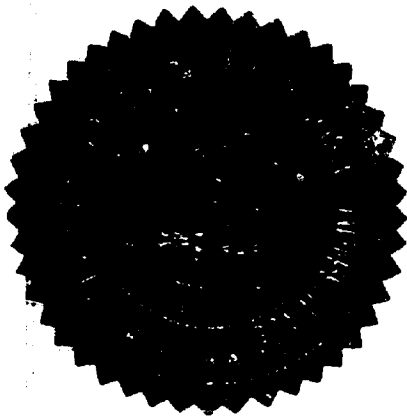
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*Jack M. Campbell*  
JACK M. CAMPBELL, Chairman

*Guyton B. Hays*  
GUYTON B. HAYS, Member

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



SAR/

GOVERNOR  
JACK M. CAMPBELL  
CHAIRMAN

State of New Mexico  
Oil Conservation Commission



LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

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

P. O. BOX 2088  
SANTA FE

July 11, 1966

Mr. Jason Kellahin  
Kellahin & Fox  
Attorneys at Law  
Post Office Box 1769  
Santa Fe, New Mexico

Re: Case No. 3420  
3421  
Order No. R-3087 & R-3088  
Applicant:  
Standard & Hanson

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

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC       

Aztec OCC       

OTHER Order R-3087 to OCC - Artesia

Order R-3088 to Mr. H. N. Clark, Potash Company of America

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

CASE 3420

Date 7/6/66

Hearing Date 9 am 6/29

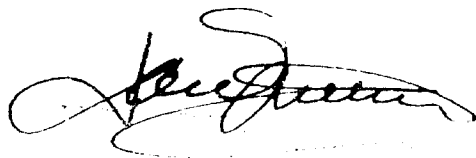
DSN @ SF

My recommendations for an order in the above numbered cases are as follows:

Enter an order approving an  
~~non-standard~~ ~~unorthodox~~ location  
for Standard Oil Company of Texas  
for a well to be drilled 1650' FNL &  
990' FEL of Sec 15, Twp 18S, Rgr 26 E  
Atoka Pennsylvania Gas Pool, Eddy Co.

<sup>320 acre</sup>  
A std gas proration unit for said  
pool, comprising the N/2 of Sec 15,  
shall be dedicated to said well.

252 acres of said unit can  
reasonably be presumed to be produc-  
tive of gas from said pool and  
well is to therefore have an acreage  
factor for proration purposes of  $\frac{252}{320}$  or 0.79.



Docket No. 16-66

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 23, 1966

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

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

- CASE 3418: Application of Ashman & Hilliard for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of the dual completion (conventional) of its J. E. Stokes Well No. 1, located in Unit G of Section 26, Township 16 South, Range 35 East, Lea County, New Mexico, to produce oil from the Wolfcamp and Pennsylvanian formations, Shoe Bar Field, through parallel strings of tubing.
- CASE 3419: Application of B. M. Jackson for a waterflood project, Lea 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 through one well located in Unit H of Section 4, Township 18 South, Range 32 East, Pearsall Queen Pool, Lea County, New Mexico.
- CASE 3420: Application of Standard Oil Company of Texas for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox location 1650 feet from the North line and 990 feet from the East line of Section 15, Township 18 South, Range 26 East, Atoka-Pennsylvanian Gas Pool, Eddy County, New Mexico.
- CASE 3421: Application of Hanson Oil Company for an exception to Commission Order No. R-111-A, Lea County, New Mexico. Applicant, in the above styled cause, seeks an exception to the potash-oil area casing and cementing rules as set forth in Commission Order No. R-111-A. Applicant proposes to drill and complete a well in Unit G of Section 21, Township 20 South, Range 34 East, Middle Lynch Yates Pool, Lea County, New Mexico, and to drill, case, and cement said well as follows:
- Drill to 65 feet and circulate cement on 13 3/8-inch casing; deepen to 800 feet and mud-in 10 3/4-inch casing; deepen to 1600 feet and mud-in 8 5/8-inch casing; drill into the Seven Rivers formation and cask 5 1/2-inch casing with at least 25 sacks of cement; drill into and test the Seven Rivers pay. If production is obtained, pull the 10 3/4-inch and 8 5/8-inch casing and cement 5 1/2-inch casing to surface. (Note: All depths are approximate.) The well would be plugged and abandoned in accordance with Commission Order No. R-111-A.
- CASE 3422: Application of Pan American Petroleum Corporation for creation of a new pool, special pool rules and four non-standard pro-rata units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Gallup production discovered by the Gallegos Canyon Unit Well No. 250 located in Unit X of Section 14, Township 28 North,

June 29, 1966, Examiner Hearing

CASE 3422 Continued:

Range 12 West, San Juan County, New Mexico, and for the promulgation of special pool rules therefor, including a provision for 160-acre proration units and specified well locations. Applicant further seeks the approval of four non-standard proration units as follows in Township 28 North, Range 12 West:

A 164.44-acre unit comprising lots 2, 3, and 4 and the S/2 SW/4 of Section 9;

A 176.14-acre unit comprising lot 1 and the S/2 SE/4 of Section 9 and lot 4 and the SW/4 SW/4 of Section 10;

A 163.29-acre unit comprising lots 1, 2, and 3 and the SW/4 SE/4 and SE/4 SW/4 of Section 10;

A 175.14-acre unit comprising the SE/4 SE/4 of Section 10 and the S/2 SW/4 and lots 3 and 4 of Section 11.

CASE 3423: Application of Pan American Petroleum Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Seven Rivers Reef formation, Scarborough Yates-Seven Rivers Pool through the open hole interval from 3029 to 3080 feet in its C. M. Farnsworth "B" Well No. 9, located in Unit N of Section 7, Township 26 South, Range 37 East, Lea County, New Mexico.

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

MAILED  
'66 JUN 6 AM 10 17

APPLICATION OF STANDARD OIL COMPANY OF  
TEXAS, A DIVISION OF CHEVRON OIL COMPANY,  
FOR APPROVAL OF AN UNORTHODOX GAS WELL  
LOCATION IN THE ATOKA-PENNSYLVANIAN  
GAS POOL, EDDY COUNTY, NEW MEXICO

APPLICATION

Standard Oil Company of Texas, a Division of Chevron Oil Company, hereby applies to the Oil Conservation Commission of the State of New Mexico for approval of an unorthodox gas well location 1650 feet from the north line and 990 feet from the east line of Section 15, Township 18 South, Range 26 East, in the Atoka-Pennsylvanian Gas Pool, Eddy County, New Mexico.

In support of this application, Standard Oil Company of Texas submits the following:

1. The applicant is owner of oil and gas leases and has the right to produce gas and condensate from the Pennsylvanian formation, source of supply of the Atoka Field, under all of the north half of Section 15, Township 18 South, Range 26 East, Eddy County, New Mexico.
2. By Order No. R-1670-E the New Mexico Oil Conservation Commission adopted Special Rules and Regulations for the Atoka-Pennsylvanian Gas Pool providing for 320-acre units comprising any two contiguous quarter sections of a single governmental section with wells located in the northwest or southeast quarter section and no nearer than 990 feet to the outer boundary of the quarter section nor nearer than 330 feet to any quarter-quarter section line.
3. Standard Oil Company of Texas drilled a well, its Paul Terry et al Gas Unit No. 1, at an orthodox location of 1980 feet from the north and west lines of Section 15, Township 18 South, Range 26 East.
4. The Paul Terry et al Gas Unit No. 1 encountered the Pennsylvanian formation at the orthodox location but was abandoned after flowing gas on test at less than a commercial rate.
5. A well at the proposed location would provide efficient drainage of the gas-acre containing unit and would prevent waste and protect correlative rights.

STANDARD OIL COMPANY OF TEXAS  
A DIVISION OF CHEVRON OIL COMPANY

Robert W. Kellahin  
KELLAHIN & FOX

P. O. Box 1769

Santa Fe, New Mexico DOCKET MAILED

ATTORNEYS FOR APPLICANT

Date \_\_\_\_\_

\_\_\_\_\_  
Superintendent of Oil Conservation

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
June 29, 1966

EXAMINER      HEARING

IN THE MATTER OF:

Application of Standard Oil Company of  
Texas for an unorthodox gas well  
location, Eddy County, New Mexico.

Case No. 3420

BEFORE:      Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING



MR. NUTTER: We will call next Case 3420.

MR. HATCH: Application of Standard Oil Company of Texas for an unorthodox gas well location, Eddy County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin representing the applicant. I have one witness I would like to have sworn, please.

(Witness sworn.)

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

JOHN BUSLEY

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A John Busley.

Q By whom are you employed and in what position?

A Standard Oil Company of Texas in Midland, as a geologist, Production Department.

Q Have you ever testified before the Oil Conservation Commission of New Mexico?

A No, I have not.

Q For the benefit of the Examiner, would you briefly

outline your education and experience as a geologist?

A I graduated from the University of Kansas, 1951, B.S. in geological engineering, and employed by Standard of Texas in July 1951, and have worked in various capacities, Exploration and Production Department.

Q Are you presently working in Midland?

A I am presently employed in Midland, yes.

Q In connection with your work in Midland, does the area of the Atoka-Pennsylvanian Gas Pool come under your supervision?

A It falls within my area.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, they are.

O (By Mr. Kellahin) Are you familiar with the application of Standard Oil Company of Texas in Case 3420?

A Yes, I am.

Q Will you tell us what Standard proposes in this application?

A Standard wishes to drill a well in the North Half of 15, as shown in Exhibit 1. It would be 18 South, 26 East, and would be within the same 320 acres in which we have a temporarily abandoned well.

Q What is the location of your temporarily abandoned

well and the location of your proposed well?

A I don't have the exact footage on the temporarily abandoned well.

Q It is a standard well location?

A It is a standard well location.

Q Under the present rules for this pool?

A Yes.

Q And your proposed well location, where is it?

A It would be 1650 from the North Line and 990 from the East Line of Section 15.

Q That would be an exception to the rules for the Atoka-Pennsylvanian Pool?

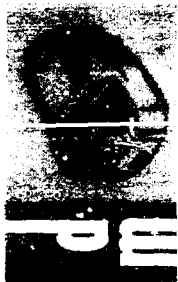
A This is my understanding that's the case.

Q What is the status, you say it's temporarily abandoned, did that well produce any gas?

A On drillstem test only.

Q Now, referring to Exhibit No. 1, what other information is shown on that exhibit?

A Well, this is a map of the gross sand section, that is the pay section in which our Martin Unit No. 1 and the Everest Unit No. 1 produces. The sand was determined primarily from a gamma curve on the gamma sonic logs. It does not represent actually a net pay, but is really a gross pay of the better-developed sand.



Q In effect, then, the contours here show an isopach of the net pay, would that be a correct statement?

A It would be an isopach of the gross sand interval with no respect to the porosity as shown on logs that has been determined in many cases.

Q Is there any other information you want to discuss on that exhibit?

A In plenimetering the area contained within the zero contour we came up with 252 acres, and I feel that this is probably a minimum amount and definitely not a maximum quantity.

Q In other words, you are talking about the zero line cutting across the corner of the unit that would be dedicated to this well and within the zero line there would be 252 productive acres according to your calculation?

A That is correct.

Q Would Standard be willing to accept a reduced allowable based on acreage for this reason if this well location is approved?

A Yes.

Q The exhibit also shows a cross section, does it not?

A A cross section --

Q I mean on the map.

A I have the line of cross section, yes.

Q Referring to what have been marked as Exhibits 2 and 3, would you identify those exhibits, please?

A I believe they have been passed down. That's just type logs showing the method in which the sand has been determined. The two exhibits, the one marked No. 2 is the Yates No. 1 Marathon State in Section 16 and it is the west, also the west log that is on the cross section, which will be shown in a little while. I have colored in what has been considered to be potential pay within that interval. The method of determining the better sand is an approximation, using approximately one-third of the deflection moving over to the right, thus you would only have the better sand development counted and not the silty or shaley zones.

Q And it's handled the same on the other well, too?

A It was done the same for consistency and is also colored in.

Q In preparing your Exhibit No. 1 did you have other logs available to you?

A Other logs were available, yes.

Q They were utilized?

A They were utilized in a similar manner. I might add that this map has been maintained since 1958 intermittently and is just our regular field map. It is a portion of our regular field map.

Q Was the latest revision prepared by you?

A The latest revision was prepared by me, that is correct.

Q Referring to what has been marked as Exhibit No. 4, will you identify that exhibit and discuss the information you have shown on it?

A This is the cross section that is outlined on Exhibit No. 1, the east-west, primarily the east-west section running along the strike of this portion of the field. Starting from left to right, the Yates well has the test indicated and is shown within the usual Atoka sand pay, or by "usual" I mean that that is producing in Standard's two wells to have a very negligible recovery. They completed their well open hole from the interval below the section where Standard produces.

Q In other words, you would say, then, that the Yates well is not completed in the zone you propose to complete your proposed well?

A That is correct.

Q It is not completed in the zone that your present -- What is that --

A It's our No. 1 Martin.

Q -- that your No. 1 Martin well is completed in?

A That's right. It is completed lower than the



Martin or Everest.

Q So, if this application is approved, in your opinion would the new well of Standard's have any effect on the Yates well?

A None whatsoever.

Q Would you go on with your discussion of the exhibit?

A The next well to the east, Standard's No. 1 Paul Terry Unit, the well that was temporarily abandoned, recovered gas on tests. The DST No. 2 of 8870 to 9100 had gas at the rate of 215,000 per day, and test No. 3, 8991 to 9100, had gas at the rate of 260,000 cubic feet per day. Standard attempted to acid, they attempted to frack open hole with 3,000 gallons of oil and 3,000 pounds of sand and the packer ruptured and the well was temporarily abandoned on 10-30-1958.

In comparison with the test in the Standard No. 1 Paul Terry Unit and the test in the Mobil No. 1 Brainard, which is the easternmost well on the cross section, Mobil had a test covering the upper part of this test interval in the Terry well and they only recovered 80 feet of drilling mud with two-hour final shut-in pressure, approximately the same as what Standard had in their one-hour shut-in.

Mobil was able to, by acidizing and fracking, to bring in the well, and it was completed one point test for 293,000



cubic feet per day. So it is our feeling that based on this comparison, that the Standard Oil Company of Texas No. 1 Paul Terry Unit is potentially productive, although the pay is not as prolific as in the Standard of Texas No. 1 Martin, which is located in the South Half of Section 15.

Q As I understand your testimony, you had some difficulty in attempting to complete the Paul Terry Unit No. 1 well?

A Yes. We were unable to acid or unable to frack.

Q And is that the reason, in your opinion, that you were unable to make a producer out of this well?

A Yes.

Q Why do you want to move to the new location?

A As shown on Exhibit 1, the sand should be much better developed at this location.

Q Who are your offset operators?

A Our offset would be Yates and I believe Marathon.

Q Does Marathon have an interest in the Yates well?

A Marathon just having an interest in the Yates well.

Q That would be to the west?

A To the west.

Q And to the east you are offset by your own acreage?



A By our own.

Q And to the north?

A By our own.

Q And to the south?

A It would be by our own acreage.

Q Is the ownership the same of all this acreage?

A No, it is not. The South Half of Section 15 is Charles Martin and North Half of 15 is Paul Terry, et al.

Q Is the approval of this well location, in your opinion, necessary to protect those interest owners?

A Yes.

Q And will it protect them?

A Yes, it will.

Q And will the correlative rights of the owners involved be protected?

A It will be.

Q And I believe it's your testimony that the Yates well would not be affected because it's completed in a different zone, is that correct?

A That is correct.

Q Were Exhibits 1 through 4 prepared by you or under your supervision?

A Yes.

MR. KELLAHIN: At this time I would like to offer

in evidence Exhibits 1 through 4.

MR. NUTTER: Standard's Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 4 were offered and admitted in evidence.)

Q In connection with the completion of your Paul Terry No. 1, were you unable to frack this because of mechanical difficulties or because of the nature of the formation?

A It was mechanical difficulties.

Q Would you describe just exactly what did occur there?

A I wasn't on the well at the time and this is strictly from the record on the well. It was just that the packer ruptured and we were unable to complete the frack.

MR. KELLAHIN: That's all I have on direct.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Busley, I presume no casing was set in that well, is that correct?

A No casing was set down through the pay.

Q So it was an attempt to frack in the open hole?

A That is correct.

Q Now, the 15 feet that you show of pay, that would



be gross pay and not necessarily productive sand, is that correct?

A That would be correct. That would be gross potential productive sand, but the same as encountered in the rest of the wells.

Q And by the plenimeter you have 252 acres in the zero contoured line?

A Yes, sir.

MR. NUTTER: Are there any other questions of Mr. Busley? He may be excused.

(Witness excused.)

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

MR. KELLAHIN: That's all, Mr. Nutter.

MR. NUTTER: If there's nothing further in Case 3420, we will take that case under advisement.

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I N D E X

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JOHN BUSLEY		
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<u>EXHIBIT</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
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1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO

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STATE OF NEW MEXICO )  
 ) ss  
COUNTY OF BERNALILLO )

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 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.

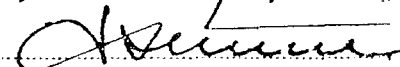
Witness my Hand and Seal this 6th day of July, 1966.

  
NOTARY PUBLIC

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. 3420, heard by me on 6/29, 1966.

  
Examiner  
New Mexico Oil Conservation Commission

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE , NEW MEXICO

## REGISTER

HEARING DATE            JUNE 29, 1966            TIME:            9 A.M.

[illegible]