

CASE 1966: Application of TEXAS  
NATIONAL PETRO. for an OIL-GAS DUAL  
of a well located at unorthodox  
location.

Case No.

1966

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Application, Transcript,  
Small Exhibits, Etc.

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

May 13, 1960

Mr. Jason Kellahin  
P. O. Box 1713  
Santa Fe, New Mexico

Dear Mr. Kellahin:

On behalf of your client, Texas National  
Petroleum Company, we enclose two copies of  
Order R-1674 in Case 1966 issued by the Oil  
Conservation Commission this date.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

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Enclosures: (2)

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BEFORE THE  
OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

Case 1966

IN THE MATTER OF THE APPLICATION  
OF TEXAS NATIONAL PETROLEUM CO.  
FOR APPROVAL OF A DUAL COMPLETION  
FOR PRODUCTION OF GAS FROM THE  
DAKOTA FORMATION AND OIL FROM THE  
GALLUP FORMATION IN AN UNDESIGNATED  
POOL, SAN JUAN COUNTY, NEW MEXICO

APPLICATION

Comes now Texas National Petroleum Company and applies to the Oil Conservation Commission of the State of New Mexico for permission to dually complete a well for the production of gas from the Dakota Formation, and oil from the Gallup formation in an undesignated pool, San Juan County, New Mexico, and in support thereof would show:

1. Applicant proposes to locate its well <sup>790</sup> 600 feet from the North line, and <sup>790</sup> 600 feet from the West line of Section 1, Township 25 North, Range 9 West, N.M.P.M., San Juan County, New Mexico.

2. Applicant proposes to drill its well to the Dakota formation, completing with 4½ inch casing and produce the Dakota through 2 inch tubing inside the casing; applicant further proposes to make a slim-hole completion to the Gallup formation, utilizing 2 7/8 inch tubing-casing for production from the Gallup formation.

3. There is attached hereto, and made a part hereof, a plat showing the proposed well location and offsetting lease ownership. There is also attached hereto, and made a part hereof, a diagrammatic sketch of the proposed dual completion.

3. All casing and tubing will be so set and cemented as to fully protect all producing formations, and the approval of this application is in the interest of conservation and the protection of correlative rights, and prevention of waste.

WHEREFORE applicant prays that this matter be set for hearing before the Commission or the Commission's duly appointed

4-28-66  
JL

examiner at as early a date as possible, and that after notice and hearing as provided by law, the Commission enter its order approving the dual completion as proposed.

Respectfully submitted,

TEXAS NATIONAL PETROLEUM COMPANY

BY Jason W. Kellahin  
KELLAHIN & FOX

P. O. Box 1713  
Santa Fe, New Mexico

Attorneys for Applicant

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. 1966  
Order No. R-1674

APPLICATION OF TEXAS NATIONAL PETROLEUM  
COMPANY FOR AN OIL-GAS DUAL COMPLETION  
IN AN UNDESIGNATED GALLUP OIL POOL AND  
IN THE DAKOTA PRODUCING INTERVAL, SAN  
JUAN COUNTY, NEW MEXICO, UTILIZING PAR-  
ALLEL STRINGS OF CASING CEMENTED IN A  
COMMON WELL BORE.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 11, 1960, 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 13th day of May, 1960, 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, Texas National Petroleum Company, is the owner and operator of the No. 1 Government 1-25-9 Well, located 790 feet from the North line and 790 feet from the West line of Section 1, Township 25 North, Range 9 West, NMPM, San Juan County, New Mexico.
- (3) That the applicant proposes to dually complete the above-described well in such a manner as to permit the production of oil from an undesignated Gallup Oil Pool and the production of gas from the Dakota Producing Interval through 2 7/8-inch casing and 4 1/2-inch casing respectively, using 2 3/8-inch tubing within the string of 4 1/2-inch casing.
- (4) That the applicant proposes that the said two strings of casing be cemented in a common well bore with the cement circulated from total depth to approximately 4600 feet.

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CASE No. 1966

Order No. R-1674

(5) That casing centralizers should be used in the interval between the bottom of the 4 1/2-inch casing to a point at least 100 feet above the uppermost perforations in the Dakota Producing Interval.

(6) That the mechanics of the proposed dual completion are feasible and in accord with sound conservation practices.

(7) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

That the applicant, Texas National Petroleum Company, be and the same is hereby authorized to dually complete its No. 1 Government 1-25-9 Well, located 790 feet from the North line and 790 feet from the West line of Section 1, Township 25 North, Range 9 West, NMPM, San Juan County, New Mexico, in such a manner as to permit the production of oil from an undesignated Gallup Oil Pool and the production of gas or oil from the Dakota Producing Interval through 2 7/8-inch casing and 4 1/2-inch casing respectively, using 2 3/8-inch tubing within the string of 4 1/2-inch casing.

PROVIDED HOWEVER, That the 4 1/2-inch string of casing shall be cemented from total depth to 4600 feet.

PROVIDED FURTHER, That casing centralizers shall be used on the 4 1/2-inch string of casing from total depth to a point at least 100 feet above the uppermost perforations in the Dakota Producing Interval.

PROVIDED FURTHER, That the applicant shall complete, operate, and produce said well in accordance with the applicable provisions of Section V, Rule 112-A.

PROVIDED FURTHER, That the applicant shall take communication tests upon completion and annually thereafter during the Annual Deliverability Test Period for the Dakota Producing Interval if gas production is obtained in the Dakota, or during the Annual Gas-Oil Ratio Test Period for the Dakota Producing Interval if oil production is obtained in the Dakota.

IT IS FURTHER ORDERED:

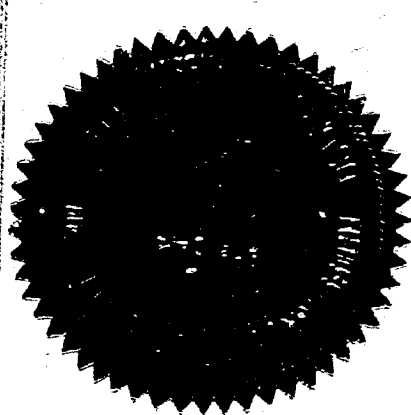
That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or the protection of correlative rights; upon failure of the applicant to comply

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CASE No. 1966  
Order No. R-1674

with any requirement of this order, the Commission may terminate the authority hereby granted and require the applicant or its successors and assigns to limit its activities to regular single-zone production in the interest of conservation.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

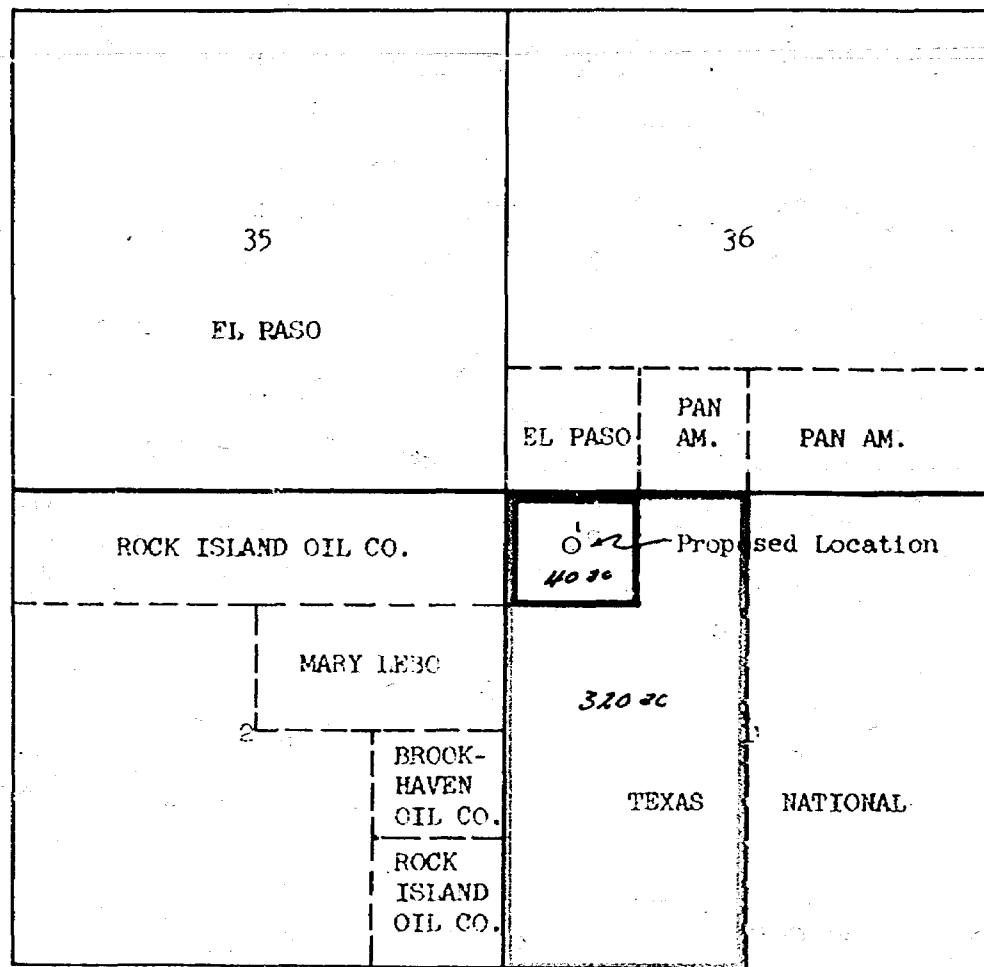
  
*John Burroughs*  
JOHN BURROUGHS, Chairman

*Murray E. Morgan*  
MURRAY E. MORGAN, Member

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

esr/





SCALE: 1" - 2000'

TEXAS NATIONAL PETROLEUM COMPANY  
#1 GOVERNMENT 1-25-9  
San Juan County, New Mexico

PROPOSED LOCATION

Dual Completion  
Gallup - Oil ☒  
Dakota - Gas ☒

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
Appl. EXHIBIT NO. 1  
CASE NO. 1966

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. \_\_\_\_\_  
CASE NO. \_\_\_\_\_

ELEVATION

TEXAS NATIONAL PET. CO  
#1 Govt F-25-9  
San Juan County, N.M.

10 3/4" 32.25" H-40 -S  
@ 6330

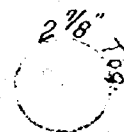
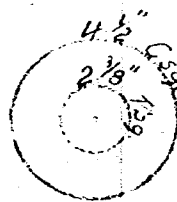
2 3/8" 5.5" H-40

4 1/2" 11.6" J-35  
@ 6700

2 3/8" 4.7" J-35  
@ 6375

PLAN

10 3/4" C59



750 cement  
@ 4500

550

5750

EG.  
Z Z

EG.  
Z Z

2 3/8" @ 5800

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
Appl. EXHIBIT NO. 2  
DATE NO. 1966

6-20

6-30

6-40

6-10-20

6-20-20

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
May 11, 1960

EXAMINER HEARING

IN THE MATTER OF:

Application of Texas National Petroleum Company  
for an oil-gas dual completion utilizing parallel  
strings of casing cemented in a common well bore  
and for an unorthodox gas well location.

CASE 1966

TRANSCRIPT OF HEARING

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
May 11, 1960

EXAMINER HEARING

IN THE MATTER OF:

Application of Texas National Petroleum Company for an oil-gas dual completion utilizing parallel strings of casing cemented in a common well bore and for an unorthodox gas well location. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of a well to be located at an unorthodox location 660 feet from the North and West lines of Section 1, Township 25 North, Range 9 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from the Gallup formation and the production of gas from the Dakota Producing Interval through 2 7/8-inch casing and through 2-inch tubing set in 4 1/2-inch casing respectively with the casing being cemented in a common well bore.

CASE 1966

BEFORE:

Mr. Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will take Case 1966.

MR. PAYNE: Case 1966: Application of Texas National Petroleum Company for an oil-gas dual completion utilizing parallel strings of casing cemented in a common well bore and for an unorthodox gas well location.

(Applicant's Exhibits Nos. 1 and 2 marked for identification.)

MR. KELLAHIN: Jason Kellahin of Kellahin and Fox, Santa Fe, New Mexico, representing the Applicant. We will have

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ALBUQUERQUE, NEW MEXICO



one witness, Mr. W. T. Withers.

(Witness sworn.)

MR. KELLAHIN: Before we start our presentation of our case, if the Examiner please, we would like to amend our application insofar as the location of the well is concerned, to show it as being located 790 feet from the North and West lines of the Section, rather than 660. I believe that will make the location an orthodox location under the Commission's Rules, and we'll need no further order in that connection.

MR. NUTTER: By amending the application in that manner, we can dismiss the portion that advertises the case for an unorthodox gas well location?

MR. KELLAHIN: That is correct.

MR. NUTTER: The application will be so amended.

W. T. WITHERS

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A W. T. Withers.

Q By whom are you employed?

A I am a Vice-President in charge of drilling and production for Texas National Petroleum Company in Houston, Texas.

Q Have you ever testified before this Commission in the

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past?

A No, I have not.

Q Will you state briefly your qualifications as an engineer?

A I received a Bachelor of Science degree in Mechanical Engineering from the Rice Institute in Houston, Texas, in 1945, and have been engaged in the drilling and production of oil and gas since that time.

Q By whom have you been employed?

A I beg your pardon. Since 1947 --

Q By whom have you been employed since that time?

A Kirby Petroleum Company and Texas National Petroleum Company.

Q Have you had any experience in the San Juan Basin?

A Yes.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes.

Q (By Mr. Kellahin) Are you familiar with the application in the case now before the Commission?

A Yes.

Q Will you state briefly what is proposed in this application?

A Well, we are applying for permission to drill a 9 7/8-inch hole to the lower Dakota in a wildcat location, and have reason

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to believe that we will be able to complete this well as a dual in the Dakota and Gallup.

Q Before we go into the description of the dual completion, would you refer to what has been marked as Exhibit No. 1 and state what that shows?

A It shows the 40-acre oil unit and 320-acre gas unit on Texas National's acreage in Section 1, Township 25, 9.

Q Is the well location correctly depicted on the exhibit?

A No, it is not on Exhibit 1. It shows it as a 660 location when in reality it is a 790 from the Northwest corner of the Section.

Q Now referring to what has been marked as Exhibit No. 2, would you describe what is shown on that exhibit?

A This shows an elevation and plane view of the proposed equipment to be put in the well. We will set 10 3/4 surface casing to protect fresh water sands to 330 feet from existing wells in the vicinity. That appears to be sufficient, and most of them are of that depth.

We will drill a 2 7/8-inch hole with mud to 6600 feet in the lower Dakota, and will run logs, and if it appears that we can make a well in only the Dakota, we would set a conventional string of 4 1/2-inch casing and 2-inch tubing. If it appears we can make a dual well from the Dakota and the Gallup, we will run in the hole alongside of and parallel to the 4 1/2, 2 7/8-inch tubing, for a tubing-less completion of the Dakota.

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We will cement these casings up to approximately 800 feet above the Gallup formation at 5500 feet, and that would protect any migration of fluids from the Dakota to the Gallup, and also from the Gallup to the Mesaverde, which is some 700 feet above the Gallup.

Q Will it be necessary to pack the formations involved here?

A Yes, it would be in both completions. We would do that by first directionally perforating the 2 7/8 tubing in the Gallup and sand-oil fracking the well. After that is completed, we would conventionally perforate the 4 1/2-inch and sand-oil frac it.

Q Does the Exhibit 2 correctly depict all of your cementing program?

A Yes, sir.

Q In your opinion will it be necessary to pump the Dakota-Gallup formation?

A From the history of the area, we will have to pump it.

Q Will this type of completion enable you to do so?

A Yes, it will.

Q Will this type of completion enable you to make any tests or any work-overs which may be required in connection with the operation of this well?

A We feel that it will make any future work-overs more simple in either of the two zones.

Q In your opinion will this type of completion adequately





protect the producing formations and any fresh water zones encountered?

A Yes, sir.

Q For what reason is it the desire of Texas National to make a dual completion of this type?

A We have asked for this type of completion because of the fact that the production history in the Gallup in the area is marginal and would not warrant the single drilling of a well to the Gallup. We feel that we can make a profitable completion and produce Gallup oil in this manner.

Q If that be the case, would a completion of this type result in the recovery of oil which would probably not otherwise be recovered?

A Yes, sir.

Q Then would you say it is in the interest of conservation that this application be approved?

A Yes, I would.

Q Is there any urgency in connection with some action on this application?

A In our case, this is a farmout. We must start this well by the 15th of this month.

Q Do you have anything to add to your testimony?

A I don't believe so.

Q Were Exhibits 1 and 2 prepared by you or under your direction and supervision?



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A Yes, sir.

MR. KELLAHIN: At this time we would like to offer in evidence Exhibits 1 and 2.

MR. NUTTER: Texas National's Exhibits 1 and 2 will be entered.

MR. KELLAHIN: That's all the questions I have, Mr. Nutter.

MR. NUTTER: Any questions of the witness?

CROSS EXAMINATION

BY MR. NUTTER:

Q What is your name, sir, Williams?

A Withers.

Q Mr. Withers, did you state that you were going to circulate the cement on the 10 3/4 surface string?

A I don't believe I stated, but we will.

Q What type of directional perforating do you plan to do, what company's tools will you use?

A Both Schlumber-J and Lane Wells have a single line gun. I have talked to both of the companies and they have both done numerous jobs with this gun with success, although I believe only one in this area has been done. Both Schlumber-J and Lane Wells say they can make the gun available when it's needed here.

Q You will use one of the two companies' guns that is a specially made gun for directional perforation?

A Yes. It will perforate in a 30-degree arc directly



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opposite to the other string with casing.

Q What do you propose to use in the way of centralizers to assure a cement job around the pipe?

A We will centralize about the lower 300 feet of the hole for the 4 1/2; we will not be able to centralize the 2 7/8 but it will be held away from the 4 1/2 by both the casing and tubing collars of both strings.

Q Well, now, you'll centralize the lower 300 feet of the 4 1/2?

A Yes.

Q What will be the setting depth of that 4 1/2?

A It will be roughly 6650.

Q So you would have centralizers up to --

A Well, we would centralize to about 90 feet above the Graneros, which is at 6400, so it would be roughly 300 feet from the bottom portion of the 4 1/2 would be centralized.

Q Would Texas National be willing to centralize 100 feet above the uppermost perforation?

A Yes.

Q What do the initials "F.C." in this casing string stand for?

A For a float collar and G. S., a guide shoe.

MR. NUTTER: Any other questions of the witness? He may be excused. Oh, call him back for just one moment.

Q (By Mr. Nutter) In the event you should encounter gas



in the Dakota, would this completion plan be altered in any way?

A No, sir.

MR. NUTTER: Thank you. You may be excused.

(Witness excused.)

MR. KELLAHIN: That's all we have.

MR. NUTTER: Do you have anything further?

MR. KELLAHIN: No, that's all, Mr. Nutter.

MR. NUTTER: Does anyone have anything further they wish to offer in Case 1966? We'll take the case under advisement, and the hearing is adjourned.

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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 was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

DATED this 15th day of May, 1960, 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. 1966 heard by me on 5/11, 1960.  
*Saul A. Darnley*, Examiner  
New Mexico Oil Conservation Commission

