

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

In the Matter of:

CASE 2063: Application of Texas National Petroleum Company for a gas-oil dual completion utilizing two strings of casing. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Government Well No. 1, to be located 790 feet from the South and East lines of Section 16, Township 26 North, Range 11 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from the Gallegos-Gallup Oil Pool and the production of gas from the Dakota Producing Interval through parallel strings of 2 7/8-inch tubing and 4 1/2 inch casing respectively cemented in a common well bore. Applicant proposes to also install 2 3/8-inch tubing for the Dakota production.

Mabry Hall
September 7, 1960

BEFORE:

Elvis A. Utz, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. UTZ: Case 2063.

MR. PAYNE: Case 2063, Application of Texas National Petroleum Company for a gas-oil dual completion utilizing two strings of casing.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, representing the Applicant, and we will have one witness. We will have

one witness in this case, I would like to have him sworn, please, sir.



I N D E X

<u>WITNESS</u>	<u>PAGE</u>
HARRY E. McDONALD	
Direct Examination by Mr. Kellahin	3
Examination by Mr. Utz	6
Redirect Examination by Mr. Kellahin	9

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(Witness sworn in.)

MR. UTL: Are there other appearances in this case?

HARRY E. McDONALD

a witness, called by and on behalf of the Applicant, having first been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Harry E. McDonald.

Q By whom are you employed and in what position, Mr. McDonald.

A Texas National Petroleum Company, I am District Manager for the Rocky Mountain District for Texas National.

Q Are you an engineer?

A I am a graduate engineer, petroleum engineer, from Texas A & M College.

Q Would you discuss briefly, for the benefit of the Commission, your education and qualifications and experience?

A I am a graduate petroleum engineer from Texas A & M College, I am a registered professional engineer in the State of Texas and in the State of Colorado, I have approximately seventeen years' experience in drilling and producing operations, in active oil operations.

Q Is the area involved in this application under your supervision?

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A It is.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. UTZ: Yes sir, they are.

Q (By Mr. Kellahin) Mr. McDonald, are you familiar with the application before the Commission at this time?

A Yes, I am.

Q Would you state briefly what's proposed in this application?

A We propose to drill and complete a dual completion to be produced from the Dakota Formation at approximately 6500 feet and the Gallup Formation at approximately 5400 feet. The well will be equipped with two parallel strings of pipe, one 4½-inch to be set and cemented through the Dakota at approximately 6500 feet, the parallel string will be 2 7/8 seamless tubing to be set and cemented at approximately 5450 feet, below the Gallup pay. The Gallup will be perforated and produced as, we think, an oil well, be equipped with rods and a pump, the 4½ will be equipped with 2 3/8 tubing and produced as a gas well; surface equipment will be as necessary.

Q Now, there was attached to the application in this case a plat showing the proposed location of the well and the offsetting ownership, was there not?

A That's right.

Q Now, there was also attached to the application in this case a schematic diagram of the proposed dual completion, was there

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not?

A That is right.

Q Now, Mr. McDonald, in your opinion, will the cementing program as you have outlined it adequately protect any producing formations?

A In my opinion, it will.

Q Will it protect any possible water zones which may exist in this area?

A In my opinion, it will, yes sir.

Q Do you know of any water zones existing here?

A No, I don't.

Q How do you propose to make your perforations in this well?

A We intend to directly perforate the two and 2/8 tubing with tools that are available to perforate away from the four and a half inch casing, which has been done, is being done, and will then proceed to perforate and frac the two and 7/8, holding an adequate pressure on our four and a half inch parallel string. Upon completion, will perforate and frac the Dakota sand at approximately 6500 feet, run 2 5/8 tubing, swab and complete.

Q Now, in connection with the completion of this well, how will the cement be run?

A We anticipate running a single stage double plug cement job that will be designed to put the top of the cement at 4500 feet, which is approximately eight hundred feet above the top perforations of the Gallup Formation. The cement will be continuous

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from 4300 to 6300 feet. The four and a half casing will be centralized at the bottom three hundred feet to a point at least one hundred feet above the top of the Dakota Formation, and likewise be switched, or equipped with reciprocal switchers across the Gallup Formation. We anticipate equipping the 2 and 7/8 tubing with Baker turbolizers which in effect are miniature centralizers. The purpose of that is to keep the two strings of pipe separated in order to guarantee a complete cement job throughout the entire Gallup interval.

Q Will that give you a complete cement job throughout the interval?

A It is designed to give a complete cement job throughout both points, to a point about eight hundred feet above the uppermost part of the Gallup Formation.

Q Now, will the production from the different zones be handled separately?

A We anticipate that will be handled separately, yes, unless otherwise authorized by the Commission.

Q At the present time, you do not seek that authorization?

A No, we do not at this time.

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

EXAMINATION BY MR. UTZ:

Q Mr. McDonald, this area is just southwest of the Fulchur-Kutz area, is it not?

A Well, I am not familiar, whether that is southeast of



the Gallegos Field, that is my interpretation of it.

Q You are not familiar with the Pictured Cliffs Pools?

A I don't have any large map; no, I am not.

Q Well, it's to the northeast of this; did you testify that there were no water zones, or that you did not know of any water zones?

A That's right, not to my knowledge; I don't know of any that aren't protected by the cement plug we have designed.

Q Your 10 and 3/4 is set at 330 feet, was that circulated?

A That will be circulated, yes sir.

Q And as far as you know, there are no water zones between 330 and 4300 feet?

A To my knowledge, there isn't.

Q There isn't any Pictured Cliff sectional lift in this area?

A If there is, I don't know where it is, or that it is water bearing or gas bearing. We hadn't anticipated testing or coring anything other than the Gallup and Dakota Formation.

Q You don't know of any Fruitland or Farmington, either?

A No; no, I don't.

Q And actually, you will have open hole from 330 to 4300?

A That is right, but there will be a nine and a half pound water base jell drilling mud behind the pipe and above the cement.

Q I believe you testified that you were going to centralize the four and a half to at least a hundred feet above the Genaris?



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A That is correct.

Q And how many feet above the Gallup were you going to put turbolizers?

A At least a hundred feet, probably more than a hundred feet.

Q How thick a sheath of cement will the turbolizers allow?

A I believe it would be $1/8$ of an inch between collars on the $4\ 1/2$ and the $2\ 7/8$.

Q Perhaps you misunderstood my question. What I would like to know is how much cement will be between the $4\ 1/2$ and the $2\ 7/8$.

A How thick a cement sheath?

Q Right.

A I beg your pardon. That's $3/8$ of an inch between collars and between the--which would be the closest or the minimum; the maximum would be, I believe would be one inch, the minimum would be three eighths of an inch between collars on the $4\ 1/2$ and $2\ 7/8$.

Q $3/8$ of an inch?

A I believe that's right.

Q Between the collars; actually, that's not a whole lot of cement, is it?

A Well, between the two strings now, the collars are between the two strings of pipe, and there would be $1\ 1/8$ inch.

Q On your diagram that you have presented here, what's the FC and the GS?

A The FC is the Float Collar and the GS is the Guide Shoe.



Q And in the event you have to artificially lift the 2 7/8, you are putting pumping equipment in it?

A Yes, we anticipate running rods with Huber Paddle Scrapers, a downhole pump and a pump unit, Beam pumping unit at the surface.

Q And I believe you said you were going to tube the 4 1/2 inch, right?

A With 2 3/8 tubing, yes sir.

Q And you will be willing to run any communication tests the Commission might require?

A Absolutely, any tests you request.

MR. UTZ: Are there other questions?

MR. KELLAHIN: I have a couple of more questions. I would like to clarify something here.

MR. UTZ: All right.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. McDonald, on the advertising in this case, this well was designated as the Government Number One, is that correct?

A That name has been changed and I would like to get that on record. The new name that we would like to change it to is to be Texas National Petroleum Company-Moncrief Number One --

MR. UTZ: Would you spell that, please?

A M-C-N-C-R-I-E-F Number One State 16-26-11.

MR. UTZ: You think that's properly designated?

Q (By Mr. Kellahin) Are you proposing the same type of



completion as was approved in your Number One Government 259 Well?

A That is correct; in nearly all essential instances, it is identical to that completion, with minor variations in the depths of the two formations there.

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

MR. UTZ: Was that 16-20 or 26?

A 16-26-11.

MR. PAYNE: Where does the 26 come from?

A That's Township 26 North, 11 --

MR. UTZ: Then your application is in error?

MR. KELLAHIN: The advertising is incorrect.

MR. PAYNE: The advertising on it, yes.

MR. KELLAHIN: That is correct, that would be 26 north.

MR. UTZ: Are there other questions? If not, the witness may be excused.

(Witness excused.)

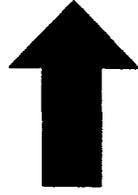
MR. UTZ: Are there other statements in this case? If not, the case will be taken under advisement.

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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 IN AN UNDESIGNATED
POOL AND OIL FROM THE GALLEGOS-
GALLUP OIL POOL, SAN JUAN COUNTY,
NEW MEXICO.

*Case-
2063*

A P P L I C A T I O N

Comes now Texas National Petroleum Co. 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 in an undesignated pool and oil from the Gallegos-Gallup Oil Pool, San Juan County, New Mexico, and in support thereof would show:

1. Applicant proposes to locate its well 790 feet from the South line and 790 feet from the East line of Section 16, Township ²⁰~~20~~ North, Range 11 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 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 CO.

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

ATTORNEYS FOR APPLICANT