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BEFORE THE OIL CONSERVATION COMMISSION September 21, 1960

Examiner Hearing

IN THE MATTER OF:

Application of Socony Mobil Oil Company for a "slim-hole" oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its E. O. Carson Well No. 23, located 760 feet from the South line and 860 feet from the West line of Section 28, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Paddock Pool and the production of oil from the Wantz-Abo Pool using parallel strings of 2 7/8-inch tubing cemented in a common well bore.

CASE NO. 2079

BEFORE:

Daniel S. Nutter, Examiner Oliver E. Payne

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: Case 2079.

Application of Socony Mobil Oil Company for MR. PAYNE: a "slim-hole" oil-oil dual completion.

Burns Errebo, Modrall, Seymour, Sperling, MR. ERREBO: Roehl & Harris of Albuquerque, appearing on behalf of the Applicant. I have one witness.

(Witness sworn.)

J. K. GORDAN, JR.

called as a witness, having been previously duly sworn, testified



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as follows:

DIRECT EXAMINATION

BY MR. ERREBO:

- Will you state your name and occupation and by whom you Q are employed?
 - J. K. Gordan, Jr., Senior Production Engineer, in Hobbs.
- Have you previously testified before this Commission as Q an engineer?
 - Yes, sir.
 - Your qualifications have been accepted? Q
 - A Yes, sir.
- Are you familiar with the application which is being heard at this time?
 - A Yes, sir.
- Q And are you familiar with the proposed plan of completion of the well which is subject to the application?
 - A Yes.
- And have you prepared an exhibit which reflects the plan Q of completion which you propose here today?
 - A Yes, and so marked Exhibit Number One.

(Whereupon, Applicant's Exhibit Number 1 was marked for identification.)

- Where is this well located, and will you identify it for Q the record?
 - This is E. O. Carson Well No. 23, the proposed well is



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located 760 feet from the South and 860 feet from the West line,
Range 37 East, in Lea County, New Mexico.

- Q This well has not been drilled, has it?
- A No. sir.
- Q Will you proceed now to explain to the Examiner and the other members of the Commission who are present the land which you propose for completion of this well as reflected on this exhibit?

As shown on Exhibit Number 1 E. O. Carson 23 is a proposed dual to the Paddock and Wantz-Abo Pools. The drilling of this well involved showing on the diagram a setting of a service string of casing 13 3/8 set at 350 with cementing circulated to the surface. The intermediate 9 5/8 set at 2900 feet with the cement circulated to the surface, drilling through the 9 5/8-inch casing to the total depth of something greater than 7100 feet. We then propose to install two strings of 2 7/8 OD casing, the long string to be using for the Wantz-Abo production and the short string for the Paddock production. As shown on our diagram the 2 7/8 OD casing would be cemented using guide shoe, cementing plug and baffle plates. And our bottom joint below the interval to be perforated so that your pumping of the plug down behind the cement would clear the perforated interval and allowing us to perforate without drilling out any cement inside of this casing. Both the strings would have casing centralizers installed immediately around the pay. As shown on our diagram we are, we have, noting clamps, by numeral 3, those are optional, they could be used as



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triple, we have not settled on that. Our cement around the strings of 2 7/8-inch casing would be circulated back to approximately 2700 feet tying in with the intermediate string of 9 5/8-inch casing, above the pays perforating intervals in both strings of 2 7/8-inch pipe. We have setting shoes installed for future installation of pumping equipment or other inside casing devices. The upper pay would be, would not be necessarily perforated with an oriented gun, to not perforate the other string of tubing which is lying alongside. The lower pay would be perforated with a conventional gun inside of 2 7/8-inch casing. This plan of cementing in the center, both entire strings, allows us to complete the well with a cement sheath around the hole from top to bottom giving us as complete as protection as we can get.

Q Will this cementing be done in more than one stage with regard to these two zones?

A At the present time our cementing plan calls for us to cement through the long string with sufficient cement and overage to bring the cement back up to our upper string in the Paddock and use that as our first stage. The second stage would be started by clearing any excess cement by pumping out of shorter strings, the Paddock string of casing and reverse clearing out all cement and mud again and then going ahead to cement from just the upper strings essentially a two state cementing operation. We believe this will give us a better chance to get a good cement job without the contamination of mud and lessening any slight and at present time



ALBUQUERQUE, NEW MEXICO

- Q Do you expect each zone will be productive of oil as opposed to gas? In other words, this will be an oil-oil dual?
 - A Yes. sir.
- Q To what extent does this application not come within the administrative provisions of rules 701E?
 - A I believe that is 107.
 - Q 107.
- A This is a dual, this is below 5,000 feet, otherwise we could ask through the provision of 1107E, we could ask, our difficulties to complete this as "slim-hole", this is deeper modified "slim-hole" completion.
- Q Actually you expected in this case, as you have in other "slim-hole" completions which you have proposed to the Commission for approval and which have been approved by the Commission, you expected there would be a saving of money by the elimination of the oil string?
 - A Yes, sir.
- Q Is there any other well on this lease which is completed in a similar manner as a result of a hearing before this Commission and order issued pursuant thereto?
- A Our E. O. Carson Number 22 is now being drilled, it is almost to TD, and in that well we received permission to complete



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the E. O. Carson Number 22 essentially as we have shown here as carson by order 761, the difference, the size of casing set for service and intermediate strings.

And is that size greater or smaller than what was approved from that previous hearing?

In this case we have proposed use of larger casing than we used in our first well, the E. O. Carson Number 22.

Q That larger casing being in the surface string, is that correct?

A On our E. O. Carson 22 the surface string was set 10 3/4inch and the intermediate string was set at 8 5/8-inch.

Was this exhibit, Mr. Gordan, prepared by you or under your supervision?

It was prepared by me.

We offer Exhibit Number 1.

MR. NUTTER: Socony Mobil's exhibit will be admitted.

MR. ERREBO: That is all we have from this witness.

MR. NUTTER: Anyone have any questions? Mr. Payne.

BY MR. PAYNE:

Mr. Gordan, will you be able to anticipate lift of either or both zones with this type completion ?

Yes, sir.

Now, do you anticipate that the Paddock pay will be sour crude?

Yes, sir.



- Q How about the Wantz-Abo?
- A Recent developments in nearby Wantz-Abo shows it to be slightly corrosive although it is classified as sweet crude at the present time. We believe we can adequately protect our casing interiors by corrosion inhibitor squeezers or down the hole corrsion inhibitor. There is a slight corrosion problem in other wells approximately one to two miles to the north.
- Q You do intend to take such action to prevent undue corrosion problems?
 - A Yes, sir.
 - Q What about pressure problems, do you anticipate any?
 - A No, sir.

MR. PAYNE: Thank you.

BY MR. NUTTER:

- Q Mr. Gordan, this intermediate string at 2900 feet does that penetrate this oil section?
 - A Yes, sir.
- Q You stated you would use centralizers throughout the pay. However, you didn't mention at what intervals?
- A As shown on our diagram we plan to use those at 30 foot intervals or one per joint.
- Q I understand your cement program, I think, I want to be clear on this. You are going to cement through the long string and bring the top of the cement up to approximately the shoe or the



short string?

- A Yes, sir, to the shoe or above, we plan on using enough overage to definitely get it to the shoe.
- Q You clean out and cement through the short string and bring the top of the cement up to 2700 feet?
 - A Yes, sir.
- Q The intermediate string at 2900 feet is going to have cement circulated to the surface as well as the 13 3/8?
 - A Yes, sir.
- Q The oriented gun you will use to perforate the upper string or short string, will that radioactive source orientation?
 - A Yes, sir.
- Q What is the size of the hole that will be drilled through the 9 5/8?
 - A 8 1/2 inch, I believe.
- Q Which provides room for two strings of tubing plus an adequate cement sheath?
 - A Yes, sir.

MR. NUTTER: Any further questions of Mr. Gordan? You may be excused.

BY MR. PORTER:

- Q Mr. Gordan, to my knowledge Socony Mobil has had development on this particular lease for many years for various pays?
 - A Yes, sir.
 - Q Do you anticipate that the company would consider drilling



A No, sir, in this case I don't believe "slim-hole" completion has made this location economically feasible, it is a further saving.

MR. PORTER: Thank you.

A In addition to that our other well completions here cannot be modified at this time to produce these formations.

MR. NUTTER: Any further questions of Mr. Gordan? You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further?

MR. ERREBO: Nothing further.

MR. NUTTER: Does anyone have anything further for Case 2079? We will take the case under advisement and take a 15 minute recess.



STATE OF NEW MEXICO)
: ss
COUNTY OF BERNALILLO)

I, LEW NELSON, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached transcript of proceedings before the Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me and/or under my personal supervision and that the same is a true and correct record to the best of my knowledge, skill and ability.

Witness my hand and seal this the 36 day of September, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Swellen 9- Kelan NOTARY PUBLIC

My Commission Expires: June 14, 1960

New Mexico Oil Conservation Commission



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