BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 4, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Skelly Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Hobs "N" Well No. 1, located in Unit D of Section 8, Township 18 South, Range 35 East, Lea County, New Mexico, as a dual completion (conventional) in the Vacuum-Abo Pool and in an undesignated Drinkard pool, with the production of oil from both zones to be through parallel strings of 2 1/16-inch tubing.

CASE NO. 2465

BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will call next case, 2465.

MR. WHITFIELD: Application of Skelly Oil Company for a dual completion, Lea County, New Mexico.

MR. WHITE: If the Examiner please, Charles White of Gilbert, White and Gilbert, Santa Fe, appearing on behalf of the

applicant. We have one witness at this time to be sworn.

(Witness sworn.)

ARTHUR R. BAUMGARTER,

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

DIRECT EXAMINATION

BY MR. WHITE:

Q State your full name for the record, please?

A Arthur R. Baumgarter.

Q By whom are you employed and in what capacity?

A Skelly Oil Company, Petroleum Engineer, Hobbs, New Mexico.

Q Have you previously testified before the New Mexico Oil Conservation Commission as a Petroleum Engineer and have your qualifications been of record?

A I have.

MR. WHITE: Does the Examiner recognize his qualifications?

MR. NUTTER: Yes, please proceed.

Q (By Mr. White) You are familiar with Skelly's application in Case 2465?

A Yes, sir.

Q Will you briefly state what Skelly is seeking by the application?

A Skelly is requesting permission to dually complete its

Hobbs "N" Well No. 1 located in Unit D, Section 8, Township 18 South, Range 35 East, as a dual completion in the Vacuum-Abo in an undesignated Drinkard Pool with the production of oil from both zones being through parallel strings of 2 1/16-inch tubing.

(Whereupon, Applicant's Exhibit No. 1 marked for identification.)

Q Will you refer to your ownership plat, Exhibit 1, and explain it to the examiner, please?

A Exhibit 1 is a plat showing the ownership of the lease offsetting our well with the Skelly Hobbs No. 1, located in the Unit D of Section 8, Township 18 South, 35 East. This is a plat that was submitted on the application with one additional well added, the Tidewater Well in Unit A of Section 7.

Q Does it show the other wells that are drilled within the area?

A Yes.

Q Does it show who the offset operators are?

A Yes, it does.

Q Does Skelly's lease show ownership common throughout the zones?

A Yes, sir.

Q Will you give the well history and in so doing refer to your diagramatic sketch marked Exhibit 2.

(Whereupon, Applicant's Exhibit No. 2 marked for identification.)

A Exhibit 2 is a diagramatic sketch of the well as

completed. The sketch shows the 13 3/8 inch O.D. casing set at 308 feet with cement circulated to surface; the 8 5/8 set at 3254 feet with the top of the cement at 145 feet from the surface; the 5 1/2-inch casing set at 9049 feet with the top of the cement at 1293 feet from the surface. The sketch also shows the Baker Model D production packer set approximately 8810 feet, the two strings of tubing, the tubing perforation with the short string for the production of the Drinkard, the perforations set at 8505; the perforations for the Abo set at 8817 feet. The sketch also shows the top of the Drinkard at 8103 feet, the Abo Reef being at 8,724 feet. The Drinkard perforations are from 8450 feet to 8476 feet. The Abo perforations are 8824 to 8874 feet. The well was drilled with three drillstem tests during the drilling, one being in the Drinkard, two being in the Abo Reef. After the pipe was set, the Abo was perforated, acidized with a thousand gallons and swabbed, reacidized with three thousand gallons and potential flowing 320 barrels of new oil in 16 hours, gas 341 MCF per day, giving a GOR of 710, 3/4-inch choke with the gravity 41.2.

Q I beg your pardon, you are getting into the crude characteristics. Let's refer back for a moment and give the crude characteristics of the Abo zone.

A The Abo has a 41.2 gravity and a GOR of 710.

Q Is it sour or sweet crude?

A It's a sour crude.

Q Is there any water produced in this zone?

A No.

Q Is this zone presently being produced?

A Yes, it is. It has a top allowable of 108 barrels of oil per day.

Q Is it flowing or pumping?

A It's flowing.

Q Now, will you give the crude characteristics of the Drinkard, please?

A The Drinkard zone has a gravity of 39.9 GOR of approximately 650, and I believe it is classified as a sweet crude.

Q What corrosive inhibitors do you intend to use in the Abo?

A It will be chemically treated.

Q Do you think that will be an adequate precaution?

A Yes.

Q Do you intend to commingle these crudes?

A No, they both have tank batteries set.

Q Is the Drinkard presently on production?

A The Drinkard was perforated Baker Model D packer set at 8810 feet, it was acidized with a thousand gallons, reacidized with three thousand gallons, was reacidized at 5000, and the fourth acid job was 10,000 gallons of 19 per cent acid, swabbed at the rate of approximately 50 barrels a day with

approximately 800 feet of oil in the hole. Pumping unit was installed and presently pumping approximately 60 barrels a day. The GOR was approximately 650.

Q Is it presently being tested now?

A Right.

(Whereupon, Applicant's Exhibit No. 3 marked for identification.)

Q Will you refer to Exhibit No. 3 and explain that, please?

A Exhibit 3 is a North South cross section with the Skelly Hobbs the one on the right showing the top of the Abo Reef, and the structural relief in the oil wells in three wells north of our well showing the depth from the North to the South; also, the top of the Drinkard is shown on our well in the Shell State, DA Number two which is North offset. The exhibit also shows the perforated intervals for the four wells on there. These logs were all gamma ray sonnic and correlated as a sub sea elevation at minus 4627.

(Whereupon, Applicant's Exhibit No. 4 marked for identification.)

Q Will you refer to Skelly's Exhibit 4 and explain that, please?

A Exhibit No. 4 is a structure map on the top of the Abo Reef of the wells completed in the area showing the wells connected where the cross section on the previous exhibit was made from.

Q Mr. Baumgarter, why did you not extend the structural map down into Section No. 7?

A There have been no wells completed in that section and we have no information as to the tops and how far the formation extends.

Q How does the Skelly subject well stand structurally within the area?

A The Skelly well is the lowest sub sea well in the area being an Abo Reef at a minus 4752.

(Whereupon, Applicant's Exhibit No. 5 marked for identification.)

Q Now, will you refer to Exhibit No. 5 and explain it, please?

A Exhibit No. 5 is a Schlumberger gamma ray sonic log run on our Hobbs "N" No. 1, with the top of the formation in question, the drillstem test and the perforations in our well.

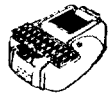
Q Does it also show the tops?

A Yes. We have correlated the tops in the area and they are shown.

Q Were Exhibits 1, 2, 3 and 4 prepared by you, or under your direction?

A Yes, they were.

Q Is Exhibit No. 5 true and accurate to your best knowledge and belief?



A Yes, it is.

Q What are the economic advantages of this dual completion?

A From the test that we have gotten from the Drinkard, it doesn't appear to be economically feasible to drill a separate well to produce the Drinkard.

Q What would the actual cost be of drilling two wells?

A The actual cost of drilling two wells would be approximately $246,000 but with an additional $14,000 for the pumping installations. The cost to dual complete this well is estimated at $163,000 with a saving somewhere around $84,000.

Q Is it your opinion that it would be uneconomical to drill a separate well for the Drinkard?

A Yes, sir.

MR. WHITE: At this time we move for the admission of Exhibits 1 through 5.

MR. NUTTER: Skelly's Exhibits 1 through 5 will be admitted in evidence.

(Whereupon Applicant's Exhibits 1 through 5 admitted in evidence.)

MR. WHITE: That concludes our testimony.

MR. NUTTER: Does anyone have any questions of Mr. Baumgarter?

CROSS EXAMINATION

BY MR. NUTTER:

Q The lowermost drillstem in the Abo produced water, didn't it?

A Yes.

Q So you came back up the hole and got a water free

completion?

A Yes.

Q Is there any other Drinkard production in the area?

A No, sir.

Q On your cross section Exhibit No. 4, I believe it is this northernmost well, is Phillips Petroleum Company, Santa Fe No. 63?

A Yes, I believe that's right.

Q Is that the No. 5 on Exhibit No. 1?

A Yes, and there was some confusion there when this was shown. I believe it is shown correct on Exhibit 4.

Q The number is 63 then?

A Right.

Q Was any difficulty encountered in drilling this well, Mr. Baumgarter, in maintaining a straight hole?

A Not that I remember. There was never any plug back and redrilling that I remember.

MR. NUTTER: Any further questions.

MR. PORTER: Just one, Mr. Nutter.

MR. NUTTER: Excuse me, Mr. Porter.

BY MR. PORTER:

Q To your knowledge, the Drinkard was not encountered in Shell wells to the North?

A They did not drillstem test them. Their logs as shown on Exhibit 3 may have some porosity in the zone that we have perforated.

MR. PORTER: That's all.

MR. NUTTER: Any further questions? Mr. Baumgarter may be excused. Do you have anything further, Mr. White?

MR. WHITE: That's all.

(Witness excused.)

MR. NUTTER: Does anyone have anything they wish to offer in Case 2465? We'll take that case under advisement.

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission, at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill, and ability.

IN WITNESS WHEREOF, I have affixed my hand and notarial seal this 4th day of January, 1962.

Ada Dearnley
COURT REPORTER-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. 2465, heard by me on 1-4, 1962.

....., Examiner
New Mexico Oil Conservation Commission