BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 8, 1961

EXAMINER HEARING

IN THE MATTER OF:

Application of Sunray Mid-Continent Oil Company for an oil-oil dual completion utilizing two strings of casing. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State "Y" Well No. 1, located in Unit G, Section 32, Township 18 South, Range 31 East, Eddy County, New Mexico, in such a manner as to permit the production of oil from the Culwin-Yates Pool and the production of oil from the North Shugart Queen-Grayburg Pool through parallel strings of 2 7/8-inch casing cemented in a common well bore. Case 2175

BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Case No. 2175.

MR. MORRIS: Application of Sunray Mid-Continent Oil Company for an oil-oil dual completion.

MR. WHITE: Charles White, Gilbert, White & Gilbert, appearing on behalf of Sunray Mid-Continent. We have one witness to be sworn.

(Witness sworn.)

ROBERT E. STATTON

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

DIRECT EXAMINATION

BY MR. WHITE:

Q Will you state your name, occupation, and by whom you are employed?

A Robert E. Statton, District Engineer, Sunray Mid-Continent Oil Company, in Hobbs, New Mexico.

Q Have you previously testified before this Commission as an engineer and have your qualifications been accepted?

A Yes, sir.

Q Are you familiar with the subject application?

A Yes, sir.

Q Are you also familiar with the proposed completion of the well which is the subject of this hearing?

A Yes, sir.

Q Have you also prepared an exhibit which shows the location of this well?

A Yes, sir. I have prepared an exhibit which shows the location of our lease, the well location, being 1650 from the north line and 2310 from the east line, Section 32, Township 18 South, 31 East, Eddy County.

Q Have you prepared an exhibit which portrays the plan of completion which you propose?

A Yes, sir.

Q That has been marked, I believe, as Exhibit No. 2. Will you now explain to the Examiner the type of completion which you

propose?

A Exhibit No. 2 is a diagrammatic sketch showing this will be a tubingless completion in which two strings of parallel casing will be cemented in a common well bore; 8 5/8-inch surface casing at 900 feet; 8-inch hole drilled through the upper pay; 6-inch hole drilled on to T. D. The purpose of the 6-inch hole reduction is to reduce the amount of cement that must be penetrated while perforating the upper zones of completion, the Yates, approximately 2600 feet, the lower zone, Queen-Grayburg, approximately 3200 to 3700 feet. Two strings of casing, 2 7/8-inch, buttress thread, I.D. 2.441, collar O.D. 3.500. This will leave a total clearance of one inch between casing collars and the well bore. The guide shoes and baffle plate will be used on both strings of casing. Centralizers used on 30-foot spacing from T. D. up to 100 feet above the lower pay, and turbilizers used on every joint of both strings for an effective spacing of 15 feet from the short string casing point up to 100 feet above the upper pay.

We plan to cement the long string first, to bring cement up to the short string, and then cement the short string to bring cement up to 2,000 feet. I do not anticipate any channelling since this will be a cable tool hole and it will be essentially dry, or, at worst, contain some amount of oil or water, never conducive to channelling as is rotary mud. We plan to penetrate the lower zone with conventional-type tubing gun, and the upper zone in conjunction with an orientation tool for perforating the long string. In cem-

enting we plan to use a latch-end down-plug on both strings, and we plan to clean all cementing lines before starting to pump down the pump down plugs, and use separate pumps to pump the plugs, all to insure approximately 40-foot clean casing below our proposed perforation.

The casing points will be approximately 70 feet below the proposed perforations of each zone. We plan to fracture both zones with refined oil and sand. I anticipate ten barrels per minute injection at 6,000 pounds surface pressure. Internal yield of casing, 7260 pounds. At such time as artificial lift is needed we will use conventional sucker rod pumps with retrievable-type setting device for each zone. In the event gas interference becomes a problem we can use sucker rods to effect bottomhole separation of gas and formation fluids.

I anticipate very little water production from the upper zone. Allowable production of 35 barrels per day, and somewhere between 35 to 1 or 150 barrels fluid per day from the lower zone. These volumes can be handled with the type of artifical lift we propose.

Q In your opinion, will both zones be effectively separated by this proposed completion?

A Yes, sir.

Q Are both of these pools oil pools?

A Yes, sir.

Q Do you anticipate any corrosion in these wells?

A Both crudes are classified as intermediate. From my

experience in this Queen area I do not anticipate any corrosion problems of a significant degree.

Q Has the Commission previously approved the dual completion of these two pools?

A Yes, sir, Order No. R-1784 and 1807, the latter, Chambers & Kennedy Monray State No. 3, one location north and one location west of our well.

Q Has the Commission previously approved a dual completion similar to the one you have proposed today?

A Yes, sir, 1785, Socony's Carson 23 is similar with the exception it was deeper and an 8 1/2-inch hole instead of 8-inch.

Q What are the economic advantages of this type of completion, if any?

A The estimated cost of our proposed completion is $40,850. This is some $7500 less than a 5 1/2 by 2 dual, $30,000 less than the cost of drilling separate wells to each one. I would not at this time recommend drilling separate wells, at least a well to the lower zone. However, I would recommend drilling this well to the lower zone for test purposes before completing in the Yates formation.

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

A Yes, sir.

MR. WHITE: At this time we offer the exhibits.

MR. NUTTER: Sunray's Exhibits 1 and 2 will be entered in evidence.

MR. WHITE: That concludes our testimony.

BY MR. NUTTER: Any questions of the witness?

BY MR. PAYNE:

Q Mr. Statton, this well hasn't been completed yet, has it?

A No, sir, it is now drilling.

Q You propose to recirculate the cement on your surface string to the surface?

A We have already set that surface pipe and cement did not circulate. We used 180 sacks and then went in from the surface and cemented with 20 sacks, and we did have the Commission approval for this, Artesia Commission.

Q You feel that protects the fresh waters in that interval?

A Yes, sir.

Q Did you encounter any fresh waters in that interval?

A Yes, we did.

Q Is there any significance in the fact your diagrammatic sketch shows your casing string to the lower formation to be other than vertical?

A No, sir.

Q It doesn't mean you expect to get a crooked hole?

A No, sir.

BY MR. NUTTER:

Q Mr. Statton, you have already run your surface pipe; what is it, in fact, set at: 900?

A 904 feet.

Q When you have completed this well and have logged it, will you furnish the Commission with a copy of the electric log of the well with the perforated intervals marked thereon?

A Yes, sir.

Q This Yates production you are anticipating there, that is an extension of the Culwin-Yates pool?

A Yes, sir. Our exhibit shows an undesignated zone; however, it is in the Culwin-Yates.

Q What are the expected GOR's for the upper and lower zones, sir?

A Mr. Examiner, I am not sure. I have observed the production on the ground. It did appear to be fairly gassy, not exceptionally so. I would say below 2,000, but I didn't see the figure.

Q There are offsetting wells completed in both zones?

A Yes, sir, the West Yates.

Q Would you determine what the GOR's in each zone are in the offsetting wells, the bottomhole pressure and the gravities of the fluids from the two zones and furnish that to the Commission?

A The gravity of the fluuds is about 35 degrees in both zones.

Q How about bottomhole pressures?

A I doubt if we can get those. I don't think they have been run on the offset wells.

Q They are not extremely high in either zone?

A No, sir, low bottomhole pressures.

Q You can determine the GOR's in the offsetting wells?

A Right.

Q And also that log, it will be part of the case file.

Any other questions of Mr. Statton? He may be excused. Do you have anything further, Mr. White?

MR. WHITE: Thank you. No.

MR. NUTTER: Does anyone have anything further in Case 2175? We will take the case under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JUNE PAIGE, 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 13th day of February, 1961.

June Paige
Notary Public - Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2175, heard by me on 2/8, 1961.

, Examiner
New Mexico Oil Conservation Commission

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EXHIBITS

NUMBER	EXHIBIT	IDENTIFIED	OFFERED	ADMITTED
Ex.#1	Location map	2	5	5
Ex.#2	Diagrammatic Sketch	2	5	5