

EXAMINER HEARING
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 26, 1958

IN THE MATTER OF: Case No. 1389

TRANSCRIPT OF PROCEEDINGS

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EXAMINER HEARING
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IN THE MATTER OF:)
)
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The application of Skelly Oil Company for an)
unorthodox oil well location. Applicant, in)
the above-styled cause, seeks an order approving) Case 1389
the unorthodox oil well location of its C. W.)
Roberts Well No. 3 located 1190 feet from the)
South line and 1450 feet from the East line of)
Section 18, Township 25 North, Range 3 West,)
in an undesignated Dakota oil pool in Rio)
Arriba County, New Mexico.)
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BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. UTZ: The next case on the docket will be Case 1389.

MR. COOLEY: Case 1389: In the matter of the application
of Skelly Oil Company for an unorthodox oil well location.

MR. SELINGER: George W. Selinger, representing Skelly
Oil Company. We have one witness, Mr. Lee King. We would like
to have the witness sworn.

(Witness sworn.)

LEE KING

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

DIRECT EXAMINATION

By MR. SELINGER:

Q State your name and address.

A Lee King, Box 426, Farmington.

Q Are you associated with Skelly Oil Company?

A I am employed as a petroleum engineer.

Q Where are you stationed, Mr. King?

A In Farmington, New Mexico, in Four States District.

Q Does that District cover the northwest portion of the State of New Mexico?

A Yes, sir, it does.

Q More particularly Rio Arriba County?

A Yes.

Q Are you familiar with Skelly Oil Company's operations in and about Township 25 North, Range 3 West, Rio Arriba County?

A Yes, I am.

Q Has the company drilled a number of wells in that area?

A Yes, they have.

Q Up to the time that the C. W. Roberts Well No. 3 was drilled, what type of wells had been completed in this area?

A Dry gas wells.

Q Is that similarly true of other operators in and about that area?

A As far as I'm familiar with other operations in this Rio Arriba area around this well.

(Skelly Oil Company's Exhibit No. 1
marked for identification.)

Q I'll hand you what has been marked Exhibit No. 1. Is that a plat of the area?

A Yes, it is.

Q Are you familiar with the application filed by Skelly in this particular case?

A Yes, I am.

Q The application seeks an exception to Statewide Rule 104-B-2 with respect to the location of the C. W. Roberts No. 3 Well, is that correct?

A That's right.

Q Where is that well located?

A It is located 1450 feet from the East line, 1190 feet from the South line of Section 18, Township 25 North, Range 3 West.

Q Does Skelly Oil Company own the acreage in Sections 17, 18, 19, 20, 29, 30, and 31 in that Township and Range?

A Yes, they do.

Q Is the location of the C. W. Roberts No. 3 in the approximately nearly center of the four section block of 17, 18, 19, 20?

A Very close to the center.

Q So that there are no other operators involved with distances closer than at least half a mile or more?

A That is correct.

Q Now when this well was released, was it released from gas

as was customary in the drilling of ten other wells in this area by Skelly as gas wells?

A That's correct.

Q This well was taken down after testing the shallower gas to a deep hole in this particular area, and what did you find?

A Well, we found oil production where we had expected gas.

Q And what is that producing formation?

A That is Dakota formation.

Q The well is drilled to a total depth of 8,180 feet?

A That is correct.

Q And on or about January 21st a potential test was taken on this well?

A That is correct.

Q Give the results of that test.

A On a 21-hour test, the well flowed 150 barrels of oil and 150,000 cubic feet of gas through a three-quarter inch choke.

Q What was the gravity of that?

A 40.3 corrected.

Q Which, under those figures, will give you approximately a thousand cubic foot ratio?

A A GOR of 877.

Q That is based on one hour potential of 177 barrels?

A That is correct.

Q In the testing and completion of this well, I think that the perforations, the first perforations were at what depth?

A It was perforated from 8077 to 78 was the first perforations to test the cement. On a drill stem test of that area, we recovered only a small amount of air and some slight shows of gas.

Q Which depth was that?

A 8077 to 78.

Q Now the well has perforations above that, is that correct?

A That is correct.

Q It's perforated from 7996 to 8020?

A Perforated from 7996 to 8020 and from 8070 to 77.

Q Was that part of the zone actually cored?

A Yes, it was cored.

Q What did it show with respect to any producing horizon over and above 8,000 feet?

A Well, the very top part of this section was shaly, silty sand with very low permeability and porosity, and I would estimate that most of the production comes from 8002 to 20, and 8070 to 8077.

Q So that actually the producing ability of the well insofar as oil from the Dakota is from 8002 down?

A That is correct.

Q This becomes of some importance since this is a discovery well in the Dakota zone, is that correct?

A That is correct, for allowable purposes you have a different factor below 8,000.

Q Should the area ever be placed under allocation, the depth

factor would be based on the perforations or the casing shoe, whichever is the higher, as being the criteria for all wells hereafter completed in the Dakota?

A That is correct.

Q So that in your opinion the oil that is producing is coming from below the 8,000 foot depth?

A I would say ninety-nine, or I wouldn't estimate the percentage, but very small amount of oil that would be obtained in this well.

Q Where is the casing shoe in this well?

A The casing shoe is at --

Q (Interrupting) Is not at 8,180 feet?

A That is correct.

Q Now, in order to secure the exception, the well is approximately 130 feet from the north and west sides of a 40 acre which can be described as the southwest of the southeast of Section 18, is that correct?

A That is correct.

Q That would be in compliance with the gas spacing rules for the area?

A That is true.

Q It would have been possible to pick a location which would have coincided with both the oil and gas requirements for spacing in the San Juan Basin?

A Yes, we could have.

Q But this location in the center of Skelly acreage and the well is going towards the center of Section 18 and is in excess of a thousand feet from the south and east lines of Section 18, is that correct?

A That is correct.

Q But it is approximately three-quarters of a mile from the north and west side of the section?

A That is correct.

Q Since you are familiar with the application, you know of course that all those offsetting the C. W. Roberts lease which contains acreage in Section 17 and 18 have all been notified, the offset operators have all been notified of this application?

A Yes, they have.

MR. SELINGER: I might add for the benefit of the Commission one party, L. L. Johnson, we did not have the address, we sent his copy to the Commission in the hopes that they might have his address. Outside of L. L. Johnson, all the other parties were sent a copy of this application direct.

We would like to offer in evidence Skelly Exhibit No. 1.

MR. UTZ: Is there objection to the entrance of Skelly Exhibit No. 1? If not, it will be entered into the record.

MR. SELINGER: That's all we have.

MR. UTZ: Are there any questions of Mr. King?

MR. NUTTER: Yes, sir.

CROSS EXAMINATION

By MR. NUTTER:

Q I wonder if you would elaborate a little further in your discussion, in the event the area should become allocated, what the depth factors would be.

A Well, the perforations are from 7996 to 8020, and from 8070 to 8077. From a core analysis and other drill stem test data, this perforated interval from 7996 to 8002 is practically non-productive. We fouled up when we perforated that area for production, and for future wells in this area, the allowable will be based on the factor from six to seven thousand instead of from seven thousand to eight thousand.

Q You mean from seven to eight until --

A (Interrupting) Eight to nine, pardon me.

Q What interval did you say was practically non-productive from 7998 to what?

A 8002.

MR. SELINGER: 8002.

A It was from the electric log and not from the core analysis. After the core analysis was obtained, this area was, this section from ninety-six to eight thousand and two was practically non-productive.

Q What is the first perforated interval, from 7996 to 8020?

A 8020.

Q So you get that eighteen feet of the first perforated

interval that is productive?

A That is correct.

Q I think this is in an allocated area?

MR. SELINGER: This is the discovery Dakota well.

MR. NUTTER: There has been no pool created here. This is in Rio Arriba County, and it is presently allocated.

MR. PORTER: What was the potential?

A 171 barrels of oil in 24 hours through a three-quarter inch choke.

MR. PORTER: In other words, was there anything like a normal unit allowable that the well would be capable of making?

MR. SELINGER: Yes.

MR. NUTTER: Would it be possible to test the interval from 8079?

A At this time it would be very unreliable, any information you would obtain because of vertical fracturing in this Dakota section.

Q So by setting a packer at 8,000 feet you wouldn't know if you were getting the production from 7996?

A Not in this well. Some future well drilled in this area with light core analysis could be tested.

MR. UTZ: Any other questions of the witness?

MR. COOLEY: Yes, sir.

By MR. COOLEY:

Q You know the present rules, Mr. King, you understand that

the 7996 top on the perforations would establish the proration depth factor, do you not?

A Yes, I do.

MR. SELINGER: That's why we are going to great lengths to explain that. Probably all wells hereafter will probably not be perforated above the 8,000 feet.

MR. COOLEY: This information is all very interesting, but unless some exception to existing rules is made, the 7996 top would still determine the allowable for any pool created around this area.

MR. SELINGER: We are making our record to show that everything above 8,000 in our opinion is non-productive. We don't think that the other wells that may hereafter be drilled in the Dakota should be penalized, not only Skelly's but other operators, should be penalized for an error that we made ourselves in perforating.

MR. COOLEY: Mr. Nutter, Mr. Utz, correct me if I am wrong. I think the proper time to raise this question as to the true top of the perforations should be in a nomenclature hearing when and if a pool is created for this area?

MR. UTZ: That's right.

MR. NUTTER: That's right.

MR. COOLEY: If there is any proration of the well while in a wildcat state, it would have to be prorated on the basis of the top of the perforations as they now exist?

MR. PORTER: Well, with the present level of allowables it couldn't make a great deal of difference, but I know what Mr. Nutter is thinking right now, is what he would use for an allowable in computing the allowable for the San Juan Basin. He would have to accept this 7996 as being the factor that determines the allowable in this case at the present time.

MR. COOLEY: This question could be reopened at the nomenclature hearing for the establishment of this pool, if there would be one.

MR. PORTER: I think it might be.

MR. NUTTER: If I may make a remark here, that is not entirely out of line. It's been our intention to send a proration schedule to El Paso Natural Gas Company. I think they're the purchaser of crude from this well?

A We haven't sold any crude.

MR. SELINGER: It is shut in.

MR. NUTTER: Who will be the purchaser?

A I am not familiar --

MR. SELINGER: El Paso will be.

MR. NUTTER: It is our intention to send a list of wells that are entitled to more than the normal allowable for the San Juan Basin during the month of March to the purchaser in the area.

MR. PORTER: In all probability you won't produce the well in March?

MR. SELINGER: Probably not.

MR. NUTTER: It was our intention to prorate the allowable on the basis of 7996.

MR. SELINGER: That is the reason we brought it up, because we feel an error was made above 8,000, knowing from core and drill stem test that it was non-productive. We don't feel that the Dakota Field as a whole should be penalized for that error. It is impossible for us to correct it because of the fracturing. I can say that hereafter all the wells will be perforated below the 8,000 foot depth.

MR. NUTTER: This would properly be a subject of a nomenclature hearing establishing the depth factor. At such time as a case is advertised for the creation of the pool, this data on cores and so forth should be given to the Commission.

MR. SELINGER: We would like to be given notice on that hearing so we can appear.

MR. PORTER: I believe that we had a pool in the southeast that the well is perforated at some interval between eleven and twelve thousand feet, and it was determined that it was not productive at that point later, and the perforations were squeezed off and the depth range established at a thousand foot lower interval. In that case the perforations were squeezed off.

MR. SELINGER: That's why we pointed out that it is now impossible to correct it in this well, because of the fracturing, but hereafter all wells will be below the 8,000. We'll attend your nomenclature hearing if and when it is called.

MR. UTZ: Any further questions?

By MR. UTZ:

Q Mr. King, in answer to one of Mr. Nutter's questions, I believe you stated that it would be impossible to determine the productivity of the interval from 7996 to 8002. What was your basis for that answer?

A The vertical fracturing in this Dakota section as revealed by core analysis.

Q Core analysis?

A Yes, could possibly give you some oil production from below this impermeable area.

Q Mr. King, was your only reason for drilling 130 foot location because you expected gas, or was there some topography entered into this?

A Well, to the west and all around, the south, pardon me, the south and east, is a very high cliff and would entail quite a bit of work to move this well to the south or to the east.

Q It would entail a lot of work to move it even 200 feet?

A Yes, it's right up against a cliff.

MR. SELINGER: As a matter of fact, we are unable to get to the location at this time.

A There hasn't been anyone there in ten days.

Q You are aware of the fact that there is a location that can be drilled for wildcats?

A Yes.

Q That can be either oil or gas?

A Yes, sir.

MR. SELINGER: We felt, Mr. Utz, that since it was in the center of our block nobody else would be adversely affected; it was in the center and was being moved towards the center of the Section 18. We're not crowding our outside lines in any respect.

Q Yes, I realize that, but 200 feet wouldn't have mattered so far as topography is concerned, you could have avoided the hearing.

A We could have moved straight west without affecting the location materially as far as topography, but I feel for drainage purposes, I believe it is better situated where it is at.

MR. UTZ: Any other questions of the witness? If not, the witness may be excused.

(Witness excused.)

MR. UTZ: You entered your exhibit?

MR. SELINGER: Yes, sir.

MR. UTZ: Any other statements in this case?

MR. KING: I might mention that I have never been qualified as a witness before.

MR. UTZ: The hearing is adjourned until 1:30.

(Recess.)

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C E R T I F I C A T E

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

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 Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript 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 12th day of March, 1958, in the city of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
 NOTARY PUBLIC

My commission expires:

June 19, 1959.

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Examiner hearing of Case No. 1382,
 heard by me on March 6, 1958.
Elmer L. Meier, Examiner
 New Mexico Oil Conservation Commission