

EXAMINER HEARING
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
May 6, 1958

IN THE MATTER OF: Case No. 1431

TRANSCRIPT OF PROCEEDINGS

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ALBUQUERQUE, NEW MEXICO
3-6691 5-9546

EXAMINER HEARING
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IN THE MATTER OF:)
)
Application of Skelly Oil Company for a dual com-)
pletion. Applicant, in the above-styled cause,)
seeks an order authorizing the dual completion of) Case 1431
its P. L. Davis Well No. 1, located 990 feet from)
the North and East lines of Section 26, Township)
26 North, Range 11 West, San Juan County, New)
Mexico, in such a manner as to permit the produc-)
tion of gas from an undesignated Gallup gas pool)
and gas from an undesignated Dakota gas pool)
underlying the above-described area.)
-----)

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: We will take next Case 1431.

MR. PAYNE: Case 1431: Application of Skelly Oil Company
for a dual completion.

MR. SELINGER: George W. Selinger, representing the appli-
cant. We have one witness, Mr. Lee King. We would like to have
him sworn.

(Witness sworn.)

LEE KING

called as a witness, having been first duly sworn on oath, testi-
fied as follows:

DIRECT EXAMINATION

By MR. SELINGER:

Q State your name.

A Lee King.

Q You are associated with what company?

A Skelly Oil Company.

Q In what capacity?

A Petroleum engineer.

Q Where are you located, Mr. King?

A Farmington, New Mexico.

Q Are you familiar with Skelly Oil Company's operations, generally, in the Northwest portion of the State?

A Yes, I am.

Q Are you familiar likewise with the drilling and completing of the P. L. Davis well in Northwest New Mexico?

A Yes, sir, I am.

Q Have you heretofore testified before the Commission?

A Yes, I have.

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

Q I will hand you what has been marked as Exhibit No. 1, and ask you to state what that is.

A That is a plat of the area surrounding the acreage owned by Skelly Oil Company.

Q Does it indicate the well, the P. L. Davis subject well?

A Yes. The P. L. Davis No. 1 is located in the Southwest Northeast, Northeast of Section 26, 26 North and 11 West, San Juan County, New Mexico.

Q That well was drilled as a wildcat, was it not?

A Yes, it was.

Q There are no other producing wells in this immediate area as reflected by Exhibit 1?

A No.

(Skelly's Exhibit No. 2
marked for identification.)

Q Now, an instrument marked Exhibit 2 is a day-by-day field information concerning the drilling and completion of this well in complete detail, is that correct?

A Yes, that is correct.

(Skelly's Exhibit No. 3
marked for identification.)

Q I now hand you what has been marked as Exhibit 3, is that a diagrammatic sketch showing the dual completion of this well?

A Yes, this sketch outlines the method and depths, perforations and factors and so forth for this dual completion.

Q What was the total depth of the well and the plug-back total depth?

A 6390 was the total depth, plug-back depth, 6289.

Q That well was completed for the production of gas from what two formations and from what perforations?

A We have gas production from the Dakota formation, which is

perforated from 6130 to 6268, not continuously for that entire zone, but in that area. It's productive of gas from the Gallup, pefforated from 5332 to 5438.

Q Are both zones completely dry insofar as fluid production or otherwise?

A The Gallup produces completely dry gas, and the Dakota produces relatively dry gas. It makes only a very small amount of oil.

Q Where is your packer set and what model and whether it's permanent or not?

A The Baker Model "D" packer, the permanent installation is set at 5975.

Q By permanent, you mean it would have to be drilled out?

A That is correct.

Q Where is the top of the cement and the surface equipment of the well?

A The top of the cement is at 4920, and we have 10-3/4 inch surface pipe set at 268 with cement circulating to the surface.

Q Is the well equipped with tubing?

A Yes, it has 2-inch tubing.

Q Has the well been completed?

A Yes, it has.

Q In both zones?

A Yes, it is waiting on connection.

Q How do you purport to produce both of these zones?

A Well, we intend to produce the Dakota through the tubing and the Gallup through the annulus around the tubing. We have a side-door choke, Otis model, set in the tubing just above the packer to relieve any fluid build-up, if necessary.

(Skelly's Exhibit No. 4
marked for identification.)

Q I'll hand you what has been marked as Skelly's Exhibit 4 and ask you to state what that is.

A This is an electric log of this P. L. Davis No. 1 with the tops of the marker formations in this area marked, with areas that have been drill stem tested or cored, and intervals that have been perforated, and also locations of bridge plugs and perforations that have been squeezed that were water productive, especially, I mean in the Dakota section.

Q Does it also show the initial production from both horizons on the bottom of that exhibit?

A Yes, it does. It gives the initial production for each zone, 1,400 mcf per day from the Gallup, and 1,900 mcf per day from the Dakota.

MR. SELINGER: I would like to offer into evidence Skelly's Exhibits 1 through 4.

MR. NUTTER: Is there objection to the admission of Skelly's Exhibits 1 through 4? If not, they will be received.

MR. SELINGER: I would like to add one thing for the benefit of the record; on February 3rd we filed for administrative approval

with the Commission an application, of which we sent copies by depositing same in the U. S. mail, postage paid, to all the offset operators to Section 26. We have not received any disagreement or disapproval from any of the offset operators.

I believe that's all we have.

MR. NUTTER: Does anyone have any questions of the witness?

MR. UTZ: Yes, I have.

MR. NUTTER: Mr. Utz.

CROSS EXAMINATION

By MR. UTZ:

Q Have you produced either of these wells yet to amount to anything?

A We haven't produced this well, no, it is not connected. We have produced wells in the Otero Pool, completed in this similar manner and approved, for approximately two years. We have never had any trouble.

Q I believe you stated that the Gallup gas was dry, is that right?

A Yes.

Q No water, no hydrocarbons?

A None so far.

Q You said that the Dakota had some liquids. Do you have any idea what the liquids are?

A It makes on absolute open flow approximately one barrel of oil per day. It varies, we tested it at three different times,

and one time it would make a barrel and a quarter, and the next time it would make only a half a barrel. At the most, I would say it would make probably one barrel per day.

Q Pretty dry even for the Dakota?

A Yes, it is.

Q The completions on your Gallup sand zones, you have shown two sand bodies there, what looks to me like two sand bodies. Do you have any data which would show the pressures in those two sand bodies, or perhaps I had better ask you whether or not you think there is vertical communication between the two sand bodies?

A Well, other than we just took a drill stem test covering the entire zone, but we cored four different sections; well, actually five different sections in this zone, and there was some vertical fracturing. Now whether it, I would say there was limited or some communication between the two, I wouldn't know the extent.

Q Do you have any idea what the pressures are in these zones?

A No, I haven't taken any bottom hole pressure at all. The drill stem test was very poor evidence. We had practically no build-up pressure. It seemed like it was 80 pounds or something like that, until the formation had been fractured. Permeabilities and porosities are very low in both zones.

Q Do you think there's any correlation in these zones and the zones up in the Gallegos area?

A It is very possible. I think it's pinching out, possibly, to the east and south, but there could be some correlation.

Q Do you know of enough correlation that you could name these sands as they have named the four sands up in the Gallegos area?

A Well, just sticking my neck out slightly, I would say this bottom zone would be comparable to the Nelson zone, they call it, in the Gallegos Gallup. The next zone would be the Sullivan zone, and possibly the Skelly zone, and then the No. 1 zone on top. This section of the Gallup could be divided up, I'll say that, in the same manner that the Gallegos Gallup proposed pool will be divided.

Q How far is this well from that area?

A Approximately, oh, from the nearest development that I know of at this time, about four or five miles.

Q Both of these zones produce substantial quantities of oil in that area, don't they?

A They do, at very high gas-oil ratios.

Q Do you feel there's a possibility that this well would become a part of that pool?

A There's a possibility.

Q Is this completion structurally higher or lower in that area?

A I believe this completion is lower than the area to the northwest.

Q Chances are it wouldn't be a gas cap situation, then?

A No, I would think it would possibly be more of a porosity trap. It may be tied and limited to the Gallegos Gallup, but

there are certain barriers through there that geologists probably could give you more dope on than I can. The low porosities and permeabilities throughout this entire area around here seems to regulate production about as much as anything, more than structure.

Q Well, let's compare the pressures in this area to the Gallegos Canyon area.

A The pressure seems to be slightly lower for this well over the Gallegos Gallup wells, the surface pressures.

MR. UTZ: I believe that's all I have.

MR. NUTTER: Any further questions of the witness? If not, Mr. King may be excused.

(Witness excused.)

MR. SELINGER: We have nothing further.

MR. NUTTER: Does anyone have anything further in Case 1431? If not, we will take the case under advisement.

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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 May, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.


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. 1431, heard by me on 5-6, 1958.


Examiner
New Mexico Oil Conservation Commission