

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1764

TRANSCRIPT OF HEARING

SEPTEMBER 30, 1959

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IN THE MATTER OF:

CASE 1764: Application of Standard Oil Company of Texas for
an unorthodox gas well location. Applicant, in
the above-styled cause, seeks an order authoriz-
ing an unorthodox gas well location in the Atoka-
Pennsylvanian Gas Pool, at a point 1850 feet from
the South line and 1650 feet from the East line of
Section 14, Township 18 South, Range 26 East, Eddy
County, New Mexico.

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. NUTTER: Take next Case 1764.

MR. PAYNE: Case 1764. Application of Standard Oil
Company of Texas for an unorthodox gas well location.

MR. KELLAHIN: If the Commission please, Jason Kella-
hin, Kellahin & Fox, appearing for the applicant, Standard Oil Com-
pany of Texas. We have one witness.

(Witness sworn)

ROBERT E. MURPHY, JR.

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Robert E. Murphy, Jr.

Q By whom are you employed and in what position, Mr. Murphy?

A Standard Oil Company of Texas. I am the District Development Geologist located in Monahans.

Q Have you had any special training in the field of geology?

A Yes, sir. I received a B. S. degree, majoring in geology, from the University of Illinois in 1950; Master of Science degree, again a major in geology from Emory University in Atlanta, Georgia in 1953. I have been employed as a geologist by Standard of Texas since 1953.

Q Have you had occasion to work in the area involved in the application in this case, Case 1764?

A Yes, sir. I've worked in this area for approximately two and a half years.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, sir.

Q Mr. Murphy, are you familiar with the application in Case 1764?

A Yes, sir.

Q Will you state briefly what is proposed in this appli-

cation?

A Standard is requesting an unorthodox gas well location in the Atoka-Pennsylvanian Gas Pool, Eddy County, New Mexico. I would like to submit these Exhibits.

Q Will you have the Exhibits marked?

A Yes, sir. Production in the Atoka-Pennsylvanian Field is from the Lower Pennsylvanian sand. Exhibit 1 is an isopach of that sand. There are three producing wells in the field now. Two are Standard of Texas, one Pan American. One Standard dry hole off to the northwest. The location which we desire to drill is marked in red -- in green, excuse me. It is in the SE/4 of Section 14. Sand is encountered at a depth of about 1900 feet, thickness from 54 feet to 55 feet. It's a sand bar type of deposit. You can see on Exhibit 1 it extends northeast, southwest. Its thickness varies considerably and rapidly, as you can see, between our Martin No. 1, which has 54 feet of sand in the SE/4 of Section 15, and is a dry hole in the NE/4 of Section 15, generally 5 feet of sand. The present and temporary field rules call for 320-acre spacing. The rules further specify that the wells be located in the northwest and southeast quarter sections. The discovery well, our Everett No. 1 does not fit this pattern, and it was drilled as a Devonian test to the Atoka. The Atoka was the secondary objective. It was dry in the Devonian. According to the Commission's rules, there are four possible locations in the SE/4 of Section 14 that we could drill. These would be 1650 feet from the South and East

line, 990 from the South and East line, 1650 from the East, and 990 from the East, and 1650 from the South line. Of these four locations, we would like to drill one further east -- northwest, and there are several reasons for that. First, we would reduce the risk of missing this sand bar completely by getting as far toward the trend as we can, as we know it today, and also we would encounter a thicker section of sand at this most northwesterly location. We believe that the Atoka sand underlies the whole 320 acres in question, but it is much thicker, as shown on the map in the north -- northern and northwest part of this 320 acres, in fact. If we could disregard field rules, the best location I could recommend to my company would be in the northwest corner of the northeast corner, the northwest corner section.

Another reason we would choose this northwesterly location of the four I mentioned is, it would tend to somewhat balance the drainage which is somewhat upset by the unorthodox location of the first well. Of the four locations that I mentioned, three have already been drilled as San Andres or Atoka San Andres field wells. These are marked on our map as oil well symbols.

The fourth location would be 990 from the East line and 1650 from the South line, and would be a regular gas well location. At this location we would lose approximately 20 percent of our sand. And at the furthest southeast location we probably would lose maybe as much as 30 percent of the sand, and we are only working with about 25 feet, to begin with, so we feel it is to our advantage to

get as far northwest as we can, which would be 200 feet north of the National Drilling Company well located 1650 from the South and East line of the section. The location we desire to drill would be 1850 from the South line and 1650 from the West line of Section 14, 8 South, 26 East.

Q You mean the East line or the West line, Mr. Murphy?

A The location we want to drill would be 1850 from the South line and 1650 from the -- it should be the East line of the section.

Q The plat shows part of the area covered in yellow. What does that indicate?

A This is acreage held by Standard of Texas.

Q Now, within the proposed area to be dedicated to this well, a portion of that is shown in white. Do you know the status of that acreage?

A That interest is held by Humble Oil Company, and we are now in the process of negotiating with them for that interest, and, of course, the well wouldn't be started until those negotiations are settled.

Q The only other open location would be on that acreage there, would it not?

A Yes, sir. And, as I pointed out, we would lose probably six, seven feet of sand, and we are not starting out with much as it is.

Q Taking into consideration the present location of the

producing wells in the Atoka-Pennsylvanian Field, do you have any opinion as to the drainage pattern which would be created by a well located, as proposed by this location?

A I think it would fit the pattern that has been established by Pan American wells and by the R. Martin well, and it would tend to get as far north and drain this upper part, which would be undrained if we drilled in the southern part of this 320 acres. The Everett No. 1, the discovery well, is also located in the S/2 of this section, and that leaves the northern half of the section, unfortunately, undrilled.

Q In your opinion, is all of the acreage which is to be dedicated to this well productive of gas?

A We believe all of this 320 acres is underlain by Atoka-Pennsylvanian sand, and it is considerably thicker in the southeast and thicker in the northwest, and we believe it to be gas productive.

Q In your opinion, will the well located, as proposed in this application, adequately drain the 320 acres to be dedicated to it?

A Yes, sir, I believe it would.

Q Now, have you prepared a map, structure map of the area?

A Exhibit 2 is a structure map which shows -- if we are allowed to drill a location, as requested, we would be in a better structural position; we would be approximately 50 feet higher in structure.

Q Would that be a better location for drainage in the area to be dedicated, Mr. Murphy?

A I believe it would.

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

A Exhibit 1 was prepared by me, and No. 2 was prepared by people working under me.

MR. KELLAHIN: At this time we would like to offer in evidence Exhibits 1 and 2.

MR. NUTTER: Standard's Exhibits 1 and 2 will be admitted in evidence.

MR. KELLAHIN: That's all the questions we have, Mr. Nutter.

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

MR. PAYNE: Yes, sir.

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Murphy, you are not seeking deviation from the general spacing pattern for this pool, which requires that the wells be located in the NE/4 and the SE/4 of the section, are you?

A No, sir. We are only seeking permission to drill north of an existing well at a regular location.

Q It would be impossible to drill a regular location in this quarter-quarter section?

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, J. A. Trujillo, 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 by me, 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 6th day of October, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Tynell
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1764, heard by me on 9-30, 1959.

Bauer, Examiner
New Mexico Oil Conservation Commission