

BEFORE THE  
**Oil Conservation Commission**  
SANTA FE, NEW MEXICO  
September 15, 1955

IN THE MATTER OF:

CASE NO. 937

TRANSCRIPT OF PROCEEDINGS

**ADA DEARNLEY AND ASSOCIATES**  
COURT REPORTERS  
605 SIMMS BUILDING  
TELEPHONE 3-6691  
ALBUQUERQUE, NEW MEXICO

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
September 15, 1955

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IN THE MATTER OF:

Application of Gulf Oil Corporation for an exception to Rule 104 to establish a 50-acre non-standard gas proration unit in the North Mason Delaware Pool, Eddy County, New Mexico, to consist of Lots 3 and 4, Section 36, Township 26 South, Range 31 East, and to be assigned to a well yet to be drilled to be known as the Eddy-State "AG" Well #3.

Case No. 937

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BEFORE:

Honorable John F. Simms  
Mr. E. S. (Johnny) Walker  
Mr. William B. Macey

TRANSCRIPT OF HEARING

MR. MACEY: The next case on the docket is Case 937.

MR. MALONE: Mr. Ross Malone, appearing for Gulf Oil Corporation in Case 937. For the record, I would like to invite attention to the fact that as application appears on the docket, it is for a 50-acre non-standard gas proration unit. The application, in fact, was for a 50-acre non-standard oil proration unit. I am advised that the publication was correctly made, but that the error just appears on the docket.

D O N W A L K E R ,

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

DIRECT EXAMINATION

By MR. MALONE:

Q Will you state your name, please?

A Don Walker.

Q Where do you live, Mr. Walker, and by whom employed?

A I am employed in Fort Worth, Texas by Gulf Oil Corporation.

Q In what capacity?

A Division Proration Engineer.

Q You have testified before this Commission on previous occasions as an expert, have you not?

A Yes, sir.

Q Are you familiar with Gulf's application in Case 937?

A Yes, sir.

Q What is sought by that application?

A Gulf is seeking the formation of an oil proration unit to be composed of Lots 3 and 4 in Section 36, Township 26 South, Range 31 East.

Q Have you caused a plat showing the proposed proration unit and the existing wells in the area to be prepared?

A Yes, sir.

(Marked Gulf Oil Corporation's Exhibit No. 1, for identification.)

Q Is that plat identified as Gulf's Exhibit No. 1?

A Yes, sir.

Q Was it prepared under your direction?

A Yes, sir.

Q Will you state what is shown by Gulf's Exhibit No. 1?

A Gulf's Exhibit No. 1 shows our Eddy-State lease in southeast

Eddy County. It is Eddy-State "AG" Lease, showing Wells Number 1 and 2, and a proposed location, Well Number 3, which we have outlined there, a proposed proration unit consisting of approximately 50.60 acres.

Q That proposed Well Number 3, which would be designated as Gulf's Eddy-State "AG" Number 3, is the well to which it is proposed to dedicate the acreage in the proposed unit?

A Yes, sir.

Q What land sub-divisions, what lots are to be included in the proposed unit?

A Lot 4 and Lot 3. Lot 4 consists of approximately 25.45 acres, and Lot 3, 25.15 acres. The total, as I mentioned, is 50.60 acres, more or less.

Q What is the proposed location of the unit well?

A Gulf proposes to drill their Eddy-State "AG" Number 3 in the center of Lot 4. The well to be located 660 feet east of the west line and 750 feet south of the north line of said Section 36, Township 26 South, Range 31 East.

Q Was Gulf's original application in Case 937 modified as regards the location of that well?

A Yes, sir, this change.

Q What was the reason that that change was made, Mr. Walker?

A This change was made to conform with a pattern established by Continental, Case 946, in which a proration unit of approximately 51 acres was requested, to consist of Lots 1 and 2 in Section 35, Township 26 South, Range 31 East.

Q That proposed unit of Continental would lie immediately west of Gulf's requested unit?

A Yes, sir.

Q What is the south boundary of Gulf's proposed unit?

A Well, the south boundary is the south boundary of the State of New Mexico in Eddy County.

Q You wouldn't care to name the state that lies south of that?

A Texas.

Q To what oil pool is the proposed well projected?

A This well is projected to the north Mason Delaware Pool.

Q Can you give us a brief history of the development of that pool?

A Yes, sir. The North Mason Delaware Pool, known in Texas as the North Mason Delaware Sand Field, produces on both sides of the state line. The New Mexico portion being in the southeastern part of Eddy County, and the Texas portion in the northwest portion of Loving County. The initial production was from Loving County, discovered in 1952 at an average depth, or producing now at an average depth of around 4,000 feet. As of August 1, 1955, there were a total of 60 wells producing, 50 being in Texas and 10 in New Mexico. Effective February 1, 1955, by New Mexico Commission Order R-571, the New Mexico Commission designated the North Mason Delaware Pool for New Mexico production, and fixed the allowable at 48 barrels for a 40-acre unit, in order that withdrawals across the State line would be as nearly equal as possible.

Q The plat which has been submitted as Gulf's Exhibit 1 shows the present state of development in this portion of the pool, does it not, Mr. Walker?

A No, sir, it does not, it just has the wells immediately offsetting our proposed unit.

Q In this immediate portion of the pool it shows the present development?

A Yes, that is right.

Q Is there available any unassigned acreage which might be used to form a standard proration unit in the development of this acreage?

A No, sir, there is not.

Q In your opinion could all acreage that is included in Gulf's proposed unit be reasonably presumed to be productive of oil from the North Mason Delaware Pool?

A Yes, sir.

Q If Gulf's application for this proposed unit were not granted, what would be required in order to recover the oil underlying the acreage in this unit?

A It would be necessary for Gulf to drill another well to get their proportionate share of the allowable under this property, and we consider that to be unnecessary.

Q In your opinion, would one well located at the proposed location in this unit efficiently and economically drain all the acreage included in the proposed unit?

A In my opinion it would.

Q Does the information available indicate that a well at the proposed location could produce a 50-acre allowable without waste?

A Based on the potentials of the wells on the north, northeast and south and west, yes, sir, I believe that it could make the additional allowable being requested.

Q Who is the owner of the leasehold estate and all lands embracing the unit?

A Gulf Oil Corporation.

Q Who is the owner of the royalty interest?

A State of New Mexico.

Q Is that ownership uniform throughout the unit?

A Yes, sir.

Q I believe you testified that there is not acreage available by which an orthodox standard unit could be formed at this location?

A That is right.

Q Can you give the completion dates of Gulf's two wells which are located on this lease at the present time, the Eddy-State "AG" 1 and 2?

A The Eddy-State "AG" Well No. 1 was completed April 12, 1955 at a total depth of 4,124 feet. Eddy-State "AG" Well No. 2 was completed June 28, 1955, at a total depth of 4,158 feet, both of which are shown on the Exhibit Number 1.

Q Are both these wells producing as top allowable wells at the present time?

A Yes, sir.

Q In your opinion, would the approval of Gulf's application prevent waste and protect correlative rights?

A Yes, sir.

Q Is there any further statement you wish to make to the Commission in this connection?

A No, sir.

MR. MALONE: We offer in evidence, Gulf's Exhibit 1.

MR. MACEY: Without objection it will be received. Any questions of the witness? Mr. Nutter.

CROSS EXAMINATION

By MR. NUTTER:

Q Do you know what the status of that well on Ohio's Mrs. Minnie Kyle Lease, the Number 2 well there in the northwest quarter of that section?

A As far as I know it is as shown, a well which was drilled to a total depth of 4,213 and considered by Ohio at that time to be non-commercial, and apparently wasn't completed as a producer. I believe that was before frac, but I am not sure.

MR. MALONE: I might state that we have a geological witness who will discuss that well.

MR. NUTTER: Perhaps I should ask Mr. Walker this question.

Q You have had experience drilling wells in that pool. You know the average cost of the wells that you have drilled in there?

A I believe our average runs between forty-two and forty-five thousand.

Q I wonder if Ohio should decide to try to drill another well in the northwest quarter of Section 2 in Texas, get one of those 330, 330 locations, would Gulf be willing to drill a well in Lot 3 to protect the acreage from drainage?

A I don't believe I could state that. The Statewide Rules for Texas permits 330 locations, but they are 40-acre units. I don't believe that you could be expected to have Gulf drill another well if they could make their top allowable out of Well Number 3 for 50 acres.

MR. NUTTER: That is all.

MR. MACEY: Anyone else have a question of the witness? If not the witness may be excused. (Witness excused.)

W. C. HARRINGTON,

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

DIRECT EXAMINATION

By MR. MALONE:

Q Will you state your name to the Commission?

A W. C. Harrington.

Q Where do you live, Mr. Harrington?

A Roswell, New Mexico.

Q By whom are you employed?

A Gulf Oil Corporation.

Q In what capacity?

A Zone sub-surface geologist.

Q You have not previously had occasion to testify before this Commission, have you?

A No, sir.

Q Will you state your education and experience briefly?

A I graduated from Texas A & M in 1950 with a Bachelor of Science Degree in Geology, and upon graduation went to work for Gulf Oil as a geologist and have worked for them continuously since then with the exception of one year which was spent in the service.

MR. MALONE: Are the witness's qualifications acceptable to the Commission?

MR. MACEY: They are.

Q Are you familiar with Gulf's application in Case 937, Mr. Harrington?

A Yes, sir.

Q In connection with the preparation of that case and testing

have you made a study of the information available to the North Mason Delaware Pool?

A Yes, sir.

Q Will you state, generally, the study which has been made?

A Well, we made a study of the, a general geologic study of the field in an effort to determine what controls production and oil-water contact, if any, and sand development throughout the field.

Q Have you caused a contour map of the area to be prepared?

A Yes, sir.

(Marked Gulf Oil Corporation's Exhibit 2,  
for identification.)

Q Is that the instrument which has been identified as Gulf's Exhibit 2?

A Yes, sir.

Q Was this exhibit prepared by you, or under your direction?

A Yes, sir.

Q Have you made a study of the geological information available to determine the apparent productive limits in the immediate area of Gulf's proposed unit?

A Yes, sir.

Q In your opinion, can all acreage that is included in Gulf's proposed unit be reasonably presumed to be productive of oil from the North Mason Delaware Pool?

A Yes, sir.

Q On what do you base that conclusion?

A Well, it is on several factors. Gulf's Exhibit 2 here is a structural contour map on top of the Delaware lime, which immedi-

ately overlies the sand productive in this area. As can be seen from this there is no structural, apparently no structural nature to entrap the contour, showing a general eastward regional dip, with a few minor knobs or highs on the area, or in the area, which apparently have no effect on the accumulation of oil. They are just minor undulations in the dip. The accumulation is apparently controlled by stratigraphic type trap, with the sand pinching out up-dip to the west, as is evidenced in Section 34 W. I. Beck's No. 2, Hanson Federal, in which the producing sand had become almost entirely shale, very thin sand section, and thickening to the east down-dip.

Q What is the thickness of the producing interval in Gulf's Number 1 and 2 Wells?

A Approximately 35 feet of sand open.

Q I note that on Gulf's Exhibit Number 2, the Ohio Kyle's Number 2 is shown as a dry hole. Have you taken that well into consideration in reaching the conclusion that all of Gulf's acreage would produce?

A I have.

Q On what basis, or what importance do you attribute to that well?

A Well, I have to argue with Ohio on both, but in my opinion the well was not adequately tested. The sand is there from our own analysis of the logs which were run on the well, the porosity is there and the water saturation in the sand is not of such a great degree as to cause the assumption that economical production could not be obtained from that well.

Q What type of test was made, according to the records avail-

able to you?

A Two drill-stem tests were made in the sand, which in a reservoir or in this sand are very inconclusive, normally, and these two tests that were run on this well were both very inconclusive, one recovering 20 feet of mud and the second recovering 200 feet of water cut mud.

Q Was any attempt to fracture the sand made?

A No, sir, as far as I know no attempt was made to complete the well.

Q In your opinion would the granting of Gulf's application prevent waste and protect correlative rights?

A It would.

MR. MALONE: We offer in evidence Gulf's Exhibit 2.

MR. MACEY: Without objection it will be received. Is that all?

MR. MALONE: That is all.

MR. MACEY: Any questions of the witness? If not the witness may be excused.

(Witness excused.)

MR. MACEY: Do you have anything further, Mr. Malone?

MR. MALONE: Nothing further.

MR. MACEY: Does anyone have anything further? If not we will take the 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.

DATED at Albuquerque, New Mexico, this 27th day of September, 1955.

  
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Court Reporter

BEFORE THE  
**Oil Conservation Commission**

SANTA FE, NEW MEXICO

August 17, 1955

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**ADA DEARNLEY AND ASSOCIATES**

COURT REPORTERS

605 SIMMS BUILDING

TELEPHONE 3-6691

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August 17, 1955

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Case No. 937

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BEFORE:

Honorable John F. Simms  
Mr. E. S. (Johnny) Walker  
Mr. William B. Macey.

TRANSCRIPT OF HEARING

MR. MACEY: The next case on the docket is Case 937.

MR. MALONE: Ross Malone. May it please the Commission,  
Gulf Oil Corporation is the applicant in Case 937 and would like to  
request that the case be continued to the regular September hearing  
of the Commission.

MR. MACEY: Any objection to the continuance of Case 937?  
If not the case will be continued until September.

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 18th day of August, 1955.

Ada Dearnley  
Notary Public, Court Reporter



My Commission Expires:

June 19, 1959