Case Mo.

1021

Application, Transcript,
5 mall Exhibits, Etc.

1021: Application of Ohio for approval an unorthodox location (990' FNL & 660' ...

BEFORE THE

Gil Conservation Commission Santa Fe, New Mexico

IN THE MATTER OF:

CASE NO. 1021

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 February 15, 1956

IN THE MATTER OF:

The application of (The) Ohio Oil Company CASE 1021: for an order granting approval of an unorthodix location and for assignment of a regular allowable thereto in accordance with the Statewide Rules and Regulations of the Oil Conservation Commission for their proposed well to be drilled to test the Pennsylvanian and Devonian formations, said well to be located 990 feet from the North line and 660 feet from the West line of Section 35, Township 15 South, Range 36 East, NMPM, Lea County, New Mexico, in the Dean-Devonian Oil Pool and an undesignated Pennsylvanian Oil Pool. Operator, in the above-styled cause, seeks an order approving an unorthodox location for their proposed well to be located 990 feet from the North line and 660 feet from the West line of Section 35, Township 15 South, Range 36 East, NMPM, Lea County, New Mexico. Operator proposes to test the Pennsylvanian formation and the Devonian formation and the Devonian formation of the Dean-Devenian Oil Pool and desires to have the assignment of a regular allowable to the well dependent upon the formation selected by the operator. The exception requested is 1. in exception to paragraph 3 and in compliance with Paragraph 5 of Order R-707 pertaining to the Dean-Devonian Oil Pool and 2. in exception to Rule 104 of the Commission's Rules and Regulations which pertains to well locations, insofar as it pertains to the Pennsylvanian formation. Operators are further advised that the subject application may be in exception to proposed rules for the Dean-Pennsylvanian Oil Pool as set forth in the application in this matter in Case 1017.

BEFORE:

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

TRANSCRIPT OF HEARING

MR. MACEY: The hearing will come to order. The next case on the docket is Case No. 1021.

MR. COUCH: Terrell Couch, The Ohio Oil Company. I would like to call Mr. Spellman.

(Witness sworn.)

D. W. SPELLMAN, JR.

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

DIRECT EXAMINATION

BY MR. COUCH:

Q State your name, please.

- A D. W. Spellman, Jr.
- Q By whom are you employed, Mr. Spellman?
- A The Ohio Oil Company.
- Q How long have you been employed by The Ohio Oil Company?
- A Approximately fifteen years.
- Q And in what capacity have you served in The Ohio Oil Company, petroleum engineer?

 A Yes, sir.
- Q You were District Engineer in the Midland Office for several years?
 - A Yes, sir, four and a half years.
- Q Does that office cover the state of New Mexico, or that portion of the state involved in this hearing, at least?
 - A Yes, sir.
- Q Mr. Spellman, what is your present occupation with The Ohio Oil Company?
 - A Assistant Division Petroleum Engineer in Houston.
- Q In that capacity, have you acquainted yourself with the facts regarding the Denton-Devonian and Banderia Pool in the present limits of that land area?

 A Yes, sir.
 - Q Mr. Spellman, have you testified before this Commission bedie?

- A Yes, sir, I have.
 - MR. COUCH: Are the qualifications of the witness acceptable?
 MR. MACEY: Yes. sir.
- Q Mr. Spellman, this application is a request by The Ohio Oil Company for an exception to permit drilling of a well at a location 330 feet from the lease line, is that correct, sir?
 - A Yes, sir, from the south.
 - Q From the south line?
 - A From the south line of the lease.
- Q And the 40-acre tract that we are referring to is the NW/4 of the NW/4, Section 35, Township 15 South, Range 36 East, is that correct, sir?

 A That is right.
- Q Mr. Spellman, in connection with this case, have you occasioned to be prepared, under your direction and supervision, certain exhibits?

 A I have.
- Q And would you like to tell the Commission what those are, please, starting with the first contour map on this?
- A We have prepared a structural contour map on the concord on top of the Devonian in the area, with the available sub-surface data that we now have, with a little assistance from --

MR. COUCH: Excuse me just a minute. Do you want a copy of these for each of you?

MR. MACEY: You can put it up on the board. I would like the Staff to have one.

MR. COUCH: We will put it on the board.

MR. MACEY: I think if we have this one and one up there, it will be sufficient.

A The other map you have there is contoured on top of the Strawn

Pay in the Dean Area.

- Q You have two contour maps, the first one you referred to is contoured on top of the Devonian Formation? A Yes, sir.
- Q And the second is contoured on top of the Strawn, in the Pennsylvanian Formation?

 A That is correct.
- Q Each of those contour maps were prepared under your direction and supervision, Mr. Spellman?

 A They were.

MR. COUCH: We offer them in evidence as Exhibits 1 and 2; the Devonian, Exhibit 1.

MR. MACEY: Without objection, Exhibits 1 and 2 will be received.

- Q Mr. Spellman, state whether, in your opinion, the 40 acres of The Ohio Oil Company leasehold here involved is reasonably deemed to be productive of oil or gas in the Pennsylvanian Formation in the Strawn Lime?
 - A It is our opinion that it is.
- Q And state whether, in your opinion, that same forty acres, in your opinion, is reasonable to be productive of gas in the Devoman Formation?

 A It could be.
 - Is it your opinion that it is? A It is,
- Q And is that indicated by the contour maps marked Chio's Ex-
- A Yes. The violet or purple dash line at approximately 9920 feet below sea level is our estimate of the water table as originally existing in the field at its discovery.
 - Q You are referring to Exhibit 1?
 - A Exhibit 1, contour map of the Devonian.

- Now, you have, I believe, a cross section, Mr. Spellman, that has been prepared regarding this Dean-Devonian Pool Area?
 - A Yes, sir.

(Ohio Oil Company's Exhibit No. 3 marked for identification)

Q Mr. Spellman, this cross section was prepared under your direction and supervision, was it?

A Yes, sir.

MR. COUCH: We offer into evidence as The Ohio Oil Company's Exhibit No. 3, the cross section which has been marked with that number.

A Called cross section A, A-prime.

MR. MACEY: So marked on Exhibit 1, is that correct?

MR. COUCH: Yes, sir.

A Yes, Exhibit 1 has a trace of this section which generally trends across the reservoir from a south to a north direction, with the wells projected as according to the way the red line is shown.

MR. MACEY: Without objection, Exhibit 3 will be received.

- Q Mr. Spellman, does this cross section include and based upon the logs of several different wells running as designated on Exhibit 1?

 A Yes, sir.
- Q Can you identify those wells for the record? Start with the first well to the south.
- A Starting from the well to the south and at point "A," we have Magnolia Petroleum Company Anderson No. 1.
 - Q Next well?
- A Atlantic Dow Federal No. 1; Sinclair Oil and Gas Company J. P. Dean No. 1.
 - Q That is the discovery well in this field, is that correct?

- A That is the discovery well in the Dean-Devonian.
- Q Next well?
- A Cities Service Oil Company State "AW" No. 1.
- Q Next after that?
- A Sinclair Oil and Gas Company State 396 No. 1.
- Q And skipping over, for the moment, the indication there, the lines of the projective location involved in this hearing, what is the next well to which a location is shown?
- A The next well we have shown is the Magnolia Petroleum Company's Harkrider No. 1.
 - Q And the well following that on the cross section?
- A Humble Oil and Refining Company's New Mexico State "AJ" No.
- Q I see. Now, based on the logs of those wells and the other information available to you, you have selected this water-oil contact which you referred to awhile ago?

 A That is correct.
- Q State again the point at which that was located and shown on the cross section designated by the blue coloring.
- A We have selected the point at 9,920 feet below sea level as water-oil contact in the Devonian.
- Q Mr. Spellman, there is a yellow streak running across the cross section at what appears to be or is indicated to be the top of the Devonian Pay according to the cross section. What is that yellow line indicitative of?
- A Our interpretation of the logs in which we had assistance from drill stem test information and core descriptions of a dense zone or cap, in the top of the Devonian, generally across the top of the structure.

- That is to say a non productive or dense zone or cap across the top of this Devonian Formation, is that right?
 - A That is right.
- Q State the approximate thickness of that as indicated by the logs, Mr. Spellman.
- A Well, it is approximately 30 feet thick, although it does vary slightly.
- Q Mr. Spellman, have you also had prepared under your supervision, a schematic diagram, referring specifically to the forty acres involved in this Ohio application?

 A I have.

(The Ohio Oil Company's Exhibit No. 4 marked for identification)

- Q Mr. Spellman, is it your opinion that so far as can now be determined that as ultimately developed, this devonian reservoir will prove to be a water dry reservoir?
- A We would expect it to be, since the devonian reservoirs in Lea County in that area have that characteristic.
 - Q Indications so far would not contradict that?
 - A That is correct.
- Q And then it would support your opinion that it would prove to be a water dry --
 - A We anticipate that.
- Q Now, in the schematic diagram indicated as Exhibit 4 and prepared under your supervision and direction -- we offer Exhibit 4 in evidence.

MR. MACEY: Without objection it will be received.

Q Now, Mr. Spellman, on that diagram, you have indicated the relative positions of a well that the Ohio would drill at the 660 location; that is the center of the quarter quater section, and you

have also indicated the location of the well at the 330 location, which is the one we request in this hearing, is that correct, sir?

A That is correct, the 330 is from the south line of the lease, it is actually 990 feet from the north line of that quarter quarter section.

- Q On the basis of that diagram -- does the diagram correctly depict the different stages of the reservoir as it would be depicted under normal operations?
- A It depicts in general what would be expected with a water table rise in the devonian as oil is withdrawn.
- Q Now, if we were to drill a well at the center of that quarter quarter section, state whether that well would, under normal conditions, water out and cease production sooner than a well located at the 330 location?

 A It would.
- Q Mr. Spellman, in a water dry field, such as this is expected to be, what about the oil and gas that would be up structure from the location of the well in this quarter quarter section we refer to, would that oil and gas be produced from the well at the center location?
 - A We would not expect it to be, no, sir, no.
- Q The tendency would be for the oil to move up structure and away from the well, then?

 A Correct.
- Q And if the well was located at the 660 location, this schematic diagram indicates, in red in the second section there, the second picture, the amount of oil that would be lost in that that now underlies the forty acres but would not be producible from this well at the center location, is that correct, sir?

A Would you state that again, please?

- Q All right. State what the red colord portion of the center of that exhibit four indicates.
- A It indicates the oil that would be remaining in the devonian at the time that the water table would have risen to the top of the productive section in the well if it were located 660 from the north line of the section.
- Q Thank you, sir. Now, that oil, then, under normal conditions, would not be producible by a well located at that 660 location?
 - A That is right.
- Q And moving to the third diagram on our Exhibit No. 4, state what the red colored portion indicates there?
- A It indicates the same thing as regards a well 990 feet from the north line of the section; the red is oil that would be remaining in the devonian at the time the water table would have reached the top of the productive section in that location.
- Q That is oil which would not be recoverable through the well located at the 330 from the south line of the lease?
 - A That is right.
- Q Simply stated, that schematic diagram indicates and shows what happens when oil moves up structure in a water dry reservoir, that the well farther down the structure ceases to produce before a well farther up structure ceases to produce? A That is right.
- Q And the oil well up structure from the oil, the oil moves on up structure to those above? A That is correct.
- Q Now, Mr. Spellman, to return to Exhibit 3, that is the cross section, and turning to those points marked in red on that cross structure, designated -- over near the end near the A Prime point -- The Ohio Oil Company 990 location is the heading of one of

those locations, and the next is the Ohio Oil Company 660 location.

- That is right.
- Now, state what the red coloring indicated there would be, Mr. Spellman, in each of those two points.

That indicates approximately the same thing as it indicated on the schematic diagram in Exhibit 4, the red is the oil productive interval overall gross above the water table and below the dense cap.

- In other words, that indicates that a well located at the 990 location would have a slightly larger pay section, based on currently available information than would a well located at the 660 location?
 - A little bit more, yes, sir.
- And, moving to the right, the Magnolia Harkrider No. 1 would have a slightly less pay section than either of those two, is that A That is indicated indicated by the cross section?
- Now, have you made an investigation to determine the efforts at completion of Magnolia --
 - We have been following it with considerable interest.
- Will you state what the latest information is that you have with reference to that well, Mr. Spellman?
- It is our understanding that subsequent to a considerable amount of work and in sqeezing, reperforating, acidizing, squeezing and reperforating, the Magnolia has now ceased work and is preparing to put the well on pump.
- Did they encounter considerable amount of water in that well, Mr. Spellman?
 - They encountered some water.

- Q And that was one of the difficulties in attempting to complete it, is that correct?
- A That's right. They evidently had some mechanical difficulty.
- Q Mr. Spellman, a well located at the point at which we propose to obtain permission to drill our well, that is, 330 from our south lease line, 330 feet from our south lease line, if that well is drilled at that location, would that endanger the correlative rights of other operators in that area?
 - A Not in my opinion.
- Q In your opinion, would it or not protect the correlative rights of The Ohio Oil Company?

 A It would.
- Q In your opinion, Mr. Spellman, if a well is required to be drilled at the center location, would it be a certainty that we would be able to complete a well in the devonian formation?
 - A You never have that assurance when you dill a well.
- Q As indicated by the Harkrider well, would we expect to encounter some difficulty completing a well in our center location because of that similarity in position?
- A We would have more difficulty, we believe, than we would in the one 990 from the north line, because there would be less gross section in which to make a position.
- Q Mr. Spellman, in order for The Ohio Oil Company to have a fair opportunity to produce its fair and equitable share of the oil in the devonian formation, is it your opinion that the well should be located 330 feet from the southerly line rather than 660 feet from the southerly line?
 - A In my opinion it should be located 990 feet from the north line.

- Q Mr. Spellman, at the time the original rules were adopted or at the time of the hearing in the original pool rules on the levonian pool on September 15, 1955, I believe I am correct that there was one well then completed, that being the Sinclair discovery well?
 - A That is right.
- Q And there were six wells either drilling or staked that were then within the limits of the devonian pool as described in the application for the pool rules?
 - A That is right. I believe that is correct.
- Q Do you know what has been the result of those six wells that were drilling or staked within the area at that time?
- A One well that was drilling, the Sinclair 396 No. 1 has been completed as a devonian producer, and the Magnolia --
 - Q That is shown on the cross section, is it not?
 - A It is.
- Q And another well is being completed as a producer, one of those six?
- A The Magnoia Harkrider has been completed. However it's not been potential.
 - Q That is the one that is being put on the pump?
 - A Yes.
 - Q And the one that encountered the water trouble?
 - A Yes, it --
 - Q All of those -- I beg your pardon, proced.
- A -- encountered difficulties both of producing water and not producing very much oil.
 - I see. Those are two of the six wells; have any of the other

remaining four been completed in the devonian formation? All of those other four and the Sinclair which has been completed as a producer were approximately at the center of the quarter And the Harbrider, the only other one than the Sinclair 396 quarter section on which they were drilled? completed of those then in process, that Harkrider well was an ex-It was, it was drilling at the time the rules were instituted. Has there been other wells completed in the pool since that ception, was it not? that were started after the pool rule hearing was held? Cities Service A. W. Well No. 1 in the SW/4 SE/4 Section That is the direct offset of the original discovery well? 35, has been completed as a devonian producer. There has been another well drilled between the limits of Q It is. To the east? Is that a south, to the south of the discovery location, not Atlantic Refining Company's Dow Federal No. 1. A that pool, is that correct? \mathcal{Q} What is the history of that well, has it now been completed? It has been completed, we understand, and is on potential as a direct off set, but to the south? Yes, and some attempt at completion was made, but difficulty Was devonian encountered in the well? was experienced in stimulating the well to make an economical well Strawn Reservoir. A DEAKNLET & ADDUCIAL

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of it.

Q All of these facts, then, indicate to you that circumstances exist which would require, in certain instances, the drilling of wells closer than the 660 from the lines in this particular formation?

- A Yes, sir.
- Q Is the Dow Federal well shown on your cross section?
- A Yes, sir, it is shown. It is the second well from the left side on Exhibit 3.
- Q And location of that well is compared to the proposed, the expected cross section in the location which we request. What is the comparsion between the pay section that was shown on that log and the pay section encountered, or expected to be encountered, in our proposed location?
 - A Approximately the same.
- Q Approximately the same, and it is likely that we might not even make a well if we are allowed to move 330 feet from the line, is that correct?
 - A That is a possibility.

MR. COUCH: I have no further questions.

MR. MACEY: Any questions of the witness?

EXAMINATION BY MR. NUTTER:

Q Mr. Spellman, what is the basis for drawing your contours and chopping off the structure in the northwest direction as shortly as you have? Isn't there a possibility that that structure could extend to the northwest farther?

A There is a possibility. The only detailed shooting that we have done in the area and on which we based some of these contours was done in the middle of January after the wells, Magnolia Harkrider

- No. 1 and the Humble A. J. No. 1 were drilled, and was detailed only in the vicinity of the location for which we are applying to attempt to pin down those particular contours.
- Q These, contours, in other words, are based on the tests that have been made in these other wells, the horizions have been picked for the devonian as well as on a seismic --
- A It's a combination of the two, there is not a tremendous amount of sub-surface data available now.
- Q Until a well is drilled on the northwest end of that structure, it is pretty hard to say that it does taper off in that area where your proposed location is, isn't it, with any certainty?
 - A Which area are you speaking of now?
- Q I am speaking of your contour map which shows the devonian structure dropping off pretty sharply on the northwest end so that we reach a level of minus 9850 right across your forty acres in the NW NW Section 35. What I am trying to drive at is: Isn't there a possibility that this structure couldn't extend farther to the northwest?
- A It might, although we believe we have done the best we could do in our shooting attmepts to pin down those contours that cross our lease.
- Q Another thing I would like to ask you, what is the status at the present time of the Sinclair Well No. 2 located in the SE N./ Section 35?
 - A Southeast of the Northwest -- that was drilling.
 - Q That is drilling at the present time? A Yes, sir.
 - Q Do you know the depth of that at the present time?

- A That is the 396 No. 2. I will have to go on memory, and I would say it is probably around seven thousand feet.
 - Q Now, the Sinclair 396 No. 3, in the SW NF, --
 - A It is also drilling at about the same depth.
- Q About 6,000 or 7,000 feet. And the well, the Magnolia Hark-rider No. 1 has been drilled into the devonian, has it not?
 - A Yes, sir, it was drilled into the devonian back in December
- Q Do you believe that a well located in the SW/4 of the NW/4, Section 35, would adequately drain the acreage that would be dedicated to it if it were allocated that quarter quarter section?
- A If a well were drilled in the SW/4 NW/4, Section 35, would it adequately drain?
 - Q Yes, would it drain that quarter quarter section?
- A One well is capable of draining considerable more than forty acres.
- Q Do you believe that it might also drain up into your quarter quarter section there if your well was watered out as shown on this schematic diagram?

 A Yes, sir.

MR. NUTTER: That is all.

MR. MACEY: Anyone else have any questions of the witness? EXAMINATION BY MR. MANKIN:

- Q Most of your testimony relates to the devonian, don't you believe you could get a commercial well in the Strawn or Pennsylvanian, as you have indicated? In other words, you are asking for a location for an unorthodox location in both the Pennsylvanian and devonian?
 - A No, sir, as I understand it, what we are asking would be

normal for the Pennsylvanian; State-wide Rules would apply. There hasn't been any spacing rules set up for the Pennsylvanian.

- Q Do you feel that in a 660 location or 990 location, either one, that you could make a commercial well without any problem of edge position?
 - A In the Pennsylvanian?
 - Q In the Pennsylvanian.
 - A Yes, sir, if you qualify "commercial."
- Q Also, I have one other question. You indicated that the water table on your Exhibit No. 3 as water table in the devonian was somewhat level. You don't feel it is tilted?
 - A Our four -- we didn't have any reason to tilt it.

MR. MACEY: Does anybody else have a question? EXAMINATION BY MR. NUTTER:

- Q One more. At the average rate of drilling in this area, how long do you think it will be before Sinclair's State No. 396, Nos. 2 and 3 would be at a depth that we would know what the devonian has to offer?
- A I would guess it would take about three and a half months from this time.
- Q To go on down from their current depth of six to seven thousand feet down into the devonian?
- A That is right. I admit at this time that our lease on the Deanexpires June the 4th, 1956.

MR. NUTTER: I believe that is all.

MR. MACEY: Does anyone else have a question of the witness?

MR. COUCH: Mr. Macey, I would like to ask another question

or two.

REDIRECT EXAMINATION

BY MR. COUCH:

Q Mr. Spellman, with respect to the possibility of this de-, vonian structure extending farther to the north, the contours should on these Exhibits 1 and 2 show a much more gradual slope and is definitely established that exists on the south and west?

A That is right. In fact, we have left the contours open northward because of some type of flatening that seems to occur in that area.

Q At the time that these Pool Rubs were adopted, I believe we have shown in September 1955, September 15, 1955 when the hearing was held, that the discovery well was the only completed well in the field, is that right, sir?

A That is correct.

Q Now, there have been a total of some eight wells drilled to the devonian, of which there are four that are productive and those four include the Harkrider well, is that right?

A That is correct.

MR. COUCH: I think that is all.

MR. MACEY: Any further questions of the witness?

EXAMINATION BY MR. MACEY:

Q Mr. Spellman, as I understand it, you are going to project a well through the devonian in the event your geology is faulty or can't complete in the devonian, you want to recomplete in the Pennsylvanian, is that correct, if it is there?

- A If it is productive we would probably make an attempt.
- Q Is the Strawn relatively erratic in the area?
- A Seems to be. The pay thickness varies from well to well.

MR. MACEY: Anyone else have a question of the witness? If not,

the witness may be excused.

Do you have anything further?

MR. COUCH: No, sir, -- Yes, just this one question.

MR. MACEY: All right.

MR. COUCH: Mr. Spellman, based on information that we now have, would it be indicated that a well to the Pennsylvanian only would be an adviseable commercial expenditure on our forty acres?

A We wouldn't consider it so.

MR. MACEY: If there are no further questions the witness may be excused.

(Witness excused.)

Do you have anything further?

MR. COUCH: No, sir.

MR. MACEY: Do you have a statement you would wish to make?

MR. COUCH: If there are any statements that can be made.

MR. MACEY: Does anyone have a statement to be made in this case?

MR. HARBEN: May it please the Commission, I represent Sinclair Oil and Gas Company, and while we do not have any testimony which we desire to offer in this case, we would like to make a statement in opposition to the application.

Some months ago Sinclair Oil and Gas Company made an application wherein we asked for an order establishing and defining the Dean-Devonian Pool and for an order establishing a uniform spacing of wells in the pool. We asked that the order provide that wells be drilled in the center of the forty acres or in the center of the Governmental quarter quarter section with 150 feet tolerance in order to avoid

surface structures.

A hearing was had on that application on September 15th, 1955, testimony was introduced to show this Commission that if our application was granted that it would tend to protect correlative rights and prevent waste.

On October 13th, 1955, after that hearing and after the Commission heard testimony, the application was granted by order entered on that date. That order provides that all wells drilled in the Devonian Pool be located in the center of each Governmental quarter quarter section with a tolerance of 150 feet in any direction to avoid surface obstructions.

It will be noted that that order does not provide a tolerance of 150 feet that may be had in order to gain structural advantage. Sinclair Oil and Gas Company on the State Lease No. 396 adjoining the forty acres in question here on the south, and on the east. The State Lease No. 413, sofar as Sinclair Oil and Gas Company is concerned, it proposes to comply with this Commission's order and drill its wells in the center of the quarter quarter section unless some circumstances may develop which we have no information about at the present time. We believe that this field should be developed on a uniform pattern in accordance with this Commission's orders.

Sinclair, at the present time, has two wells drilling on the State Lease No. 396 which adjoins this forty acres to the south. If this Commission grants this application and grants an exception to its order which was heretofore entered, and permits the Ohio Oil Company to drill its well 330 feet from the south line, then there will be a well 330 feet from our State lease. When we offset the

well, we propose to drill in the center of the forty acres or quarter quarter section in accordance with the Commission's orders and which would locate our well in the State lease 660 feet from the line of the Ohio lease, and we believe that the well located 330 feet from the south line of the forty acres would drain oil from our State lease No. 396 when we drill an offset well 660 feet from the line.

As I understand the testimony -- I might have misunderstood some of it -- Mr. Spellman said that in his opinion the devonian formation would be productive of oil under the entire forty acres. Now, the contour line map which has been presented here and offered in evidence appears to have been compiled by the theoretical projection of contours; we have no definite information as to where this waterline is.

Now, are we going to permit lease owners to crowd their wells towards the center of this structure? If we do, when are we going to define the outlines or edges of the structure? We do not know whether or not a well drilled in the center of the forty acres would be as productive and would produce as much oil as a well drilled 330 feet from the south line. I say that we should drill enough wells in the center of the quarter quarter sections in accordance with this Commission's orders until we obtain enough information to determine where the waterline is around the field.

Now, I do not believe that the testimony which has been introduced in this case justifies the Commission in granting an exception and permitting a well to be drilled 330 feet from the line of our State lease, and I ask that the Commission require that the wells be drilled in accordance with its order entered on October 13th, 1955.

MR. MACEY: Does anyone else have a statement to make in this case?

MR. COUCH: If it please the Commission, Sinclair has not seen fit to introduce any additional evidence in connection with this hearing, but having made this rather detailed and lengthy statement, some of which partakes of the nature of testimony or conclusions drawn from factual data or supposition, I would like to make a statement of the position of The Ohio Oil Company.

First of all, there is no requirement that a party must sit
and wait for additional development before he is givin an opportunity
to try to make a well on his acreage. The fact that our lease is
to expire shortly is properly of no specific concern of this Commission in its conservacy efforts any more than is the fact that
State acreage adjoins it to the south a matter for this Commission
to be concerned with in determining the proper conservacy methods.

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I know the Commission is not going to give undue weight to either of those circumstances. I do point out that we have now eight more wells, or seven more wells, than were available when this Commission entered its order when the evidence was originally presented on September 15th, 1955. The Ohio Oil Company feels that it has delayed long enough and it is entitled to proceed before this Commission to present the best information now available and to request that this Commission give due consideration to all that we now have available and to afford us a fair opportunity to recover what we conceive to be our fair and equitable share of the oil underlying our tract.

We have a statement to the effect that a well drilled at the 660 location offsetting our acreage to the east will not prevent drainage and a well that we might drill at the location we request

would drain the State acreage to the south. There is no evidence in the record to indicate that or support it.

I invite the Commission's attention to the record in Case 958 and to the almost complete lack or evidence that was available at that time to require absolutely that all wells in this field be drilled on the center of the forties. I further suggest that we consider, at this time, the fact that the State-wide rules recognize that a uniform pattern is a good thing to begin with, and that the wildcat locations must be in the center of the forty with only a hundred foot tolerance, but the State-wide Rules also recognize that an oil field, once it is found that it is fair to permit the operators to drill within 330 feet of the line, in some cases perhaps that should be prohibited. We feel, in this case, that it is no longer necessary to make the drilling in the center mandatory; if we are going to have a fair chance in view of the difficulties encountered by the others, that The Ohio Oil Company is entitled to drill its well 330 feet from the line where it will not have a structural advantage, but a structural opportunity.

MR. MACEY: Does anyone else have a statement in this case? If not, we will take the case under advisement.

* * *

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO)

I, THURMAN J. MOODY, Court Reporter, do hereby certify that the above and foregoing transcript of proceedings had before the New Mexico Oil Conservation Commission is a true and correct transcript to the best of my knowledge, skill and ability.

Me Chier Cil Co.

Legal Department

VI. Hume Everett Thomus N. McElvoy J. Q. Terrell Couch sttomeys

January 25, 1956

P.O.Box 3128 Houston, Texas

Re: Approval of Non-Standard Location and Regular Allowable for a well proposed to test Pennsylvanian and Devonian formations in NW/4 NW/4 Section 35, T-15-S, R-36-E, N.M.P.M., Lea County, being within the area included in the Dean-Devonian Pool.

New Mexico Oil Conservation Commission P. O. Box 871 Santa Fe, New Mexico

Attention: Mr. W. B. Macey, Secretary

Gentlemen:

The Ohio Oil Company respectfully requests that you grant this application for exceptions to the Statewide Rules and the applicable pool rules, by authorizing The Ohio Oil Company to drill a well to a sufficient depth to test the Pennsylvanian and Devonian formations for oil and gas at a location 990 feet from the north line and 660 feet from the west line of Section 35, Township 15 South, Range 36 East, N.M.P.M., Lea County, and by authorizing production of oil and gas from such well at the rate and amount permitted by the Statewide Rules without penalty on account of location of the well, such production to be from the formation selected by applicant.

The Ohio Oil Company is the owner of valid oil and gas leases from A. C. Dean et al, covering the NW/4 NW/4 of said Section 35 and other lands. All other interested parties known to applicant are as follows: Sinclair Oil and Gas Company, Sunray Oil Company, Magnolia Petroleum Company, Tidewater Associated Oil Company, Humble Oil & Refining Company, Gulf Oil Corporation, Atlantic Refining Company, and Mr. Dan Auld, P. O. Box 988, Kerrville, Texas.

The drilling and production of the proposed well, at the location and in the menner stated above, will not cause but will prevent waste and will not damage but will protect correlative rights. Refusal of this application would deprive your applicant of a fair opportunity to recover its just and equitable share of the oil and gas under the NW/4 of the NW/4 of said Section 35.

The Ohio Oil Company requests that this application be set for hearing at the earliest possible date, that due notice of the application and hearing be issued and published as required by law, and that the hearing be held before an Examiner. If objection to the hearing before the Examiner is made within the time provided by law, or if the Commission desires to hold the hearing itself, your applicant requests that this application be set for hearing before the Commission at its regular hearing on February 15, 1956, if possible.

January 25, 1956 New Mexico Oil Conservation Commission Page 2

The Ohio Oil Company requests that promptly after such hearing this application be granted, that the exceptions herein requested be authorized and that the Commission enter its order approving and authorizing the location, drilling and production of the well as requested in this application. After such order is entered, The Ohio expects to file Form C lol and other applicable forms in connection with such well, which forms shall be based upon and filed pursuant to such order.

Very truly yours,

THE OHIO OIL COMPANY

J. O. Terrell Couch

TC:MK

The Chic Cil Co. Logal Department

VI: Humo Everett Thomus K. McElroy J. O. Terrell Couch Atomey.

January 25, 1956

P.Q.Box 3128 Houston, Texas

Re: Approval of Non-Standard Location and Regular Allowable for a well proposed to test Pennsylvanian and Devonian formations in NW/4 NW/4 Section 35, T-15-S, R-36-E, N.M.P.M., Lea County, being within the area included in the Dean-Devonian Pool.

Mr. W. B. Macey, Secretary New Mexico Oil Conservation Commission P. O. Box 871 Santa Fe, New Mexico

Dear Bill:

I enclose in triplicate application for hearing on the above subject. I will appreciate your setting the case for the earliest possible date after notice can be given, so that in the event hearing before the Commission is necessary it will be possible to get the case on the February docket.

Please return the extra copy of this letter with a note on it showing the date, time and place selected for the hearing. Any thoughts or suggestions you might have in connection with this case will be appreciated.

Sincerely,

Terrell Couch

TC:MK Enc.4

CASE 1021

Application of Ohio Oil Company for exception to Dean Devonian Pool Rules to permit drilling a 660-330 location.

- Point 1: No real evidence was presented in the hearing of Case 958 (establishing 660-660 locations) except that "where you have 40-acre proration units you should have 40-acre spacing."
- Point 2: Ohio recognized the position they would be in if 40-acre spacing was required. They entered no evidence in Case 958 but made a vigorous objection to Sinclair's proposal. They were joined by Shell in objecting.
- Point 3: Ohio's exhibits in Case 1021 indicate that the Devonian structure is a small sharply dipping structure, and that the water-oil contact is at approximately 9920. Sinclair in its exhibit #3 in Cases 1016-1017 also picked the water-oil contact at 9920.
- Point 4: Ohio's Exhibit #3 and #4, if correct, and assuming that the water table is not tilted, would indicate that considerable oil underlying their acreage could not be recovered by them under a 660 location. Further, that even with a 330 location, some of the oil underlying their acreage will go to a Sinclair located up-structure on the south offset location.
- Point 5: Sinclair offered no testimony in Case 1021 but did offer a vigorous objection to its approval. However they made no objection to Ohio's exhibits or their interpretation thereof, so it is probably fair to consider them as a fair representation of the structure and facts.

Point 6: In the interest of protection of correlative rights it appears that

Ohio's application would not injure Sinclair's rights, but in fact would

protect Ohio's right to produce a maximum of the oil underlying its

lease.

Point 7: In the interest of preventing waste, Ohio's application will not cause waste, but in fact will prevent waste caused by possible migration of Ohio's oil a farther distance to a south offset Sinclair might drill.

San Auther #1/56

OIL CONSERVATION COMMISSION P. O. BOX 871 SANTA FE. NEW MEXICO

April 11, 1956



Mr. J. O. Terrell Couch The Ohio Oil Company P.O. Box 3128 Houston, Texas

Dear Mr. Couch:



I am reasonably sure that you have received a copy of Commission Order R-778 by this date, but just in case you have not I am enclosing a copy.

Yours very truly,



A. L. Porter, Jr. Acting Secretary - Director

ALPibrp

Memo From May Serve as findings.

MAIN OFFICE OG The Chio Cil Co.

SO MPR 9 III 8:21

Logal Department April 5, 1956

W. Hume Everett Thomas K. McElroy J. Q. Terrell Couch

P.O.Box 3128 Houston, Texas

Mr. A. L. Porter, Acting Director Oil Conservation Commission P. O. Box 871 Santa Fe, New Mexico

Dear Mr. Porter:

Thank you very much for your immediate response to my request for copies of Order 98-A.

I enclose for your information a copy of my letter of this date addressed to Ada Dearnley and Associates, attention Mr. Thurman J. Moody. Some time ago I discussed with Mr. Bill Macey the fact that I had considered writing such a letter. At that time he seemed to think it would not be misunderstood. I hope it will not be. Certainly, we are all interested in obtaining the most accurate transcripts possible in the cases presented to the Commission and its Examiner.

I received a call from Mr. Bill Macey last week, verifying that the order was signed approving The Ohio's location for its Dean well as requested in the application in Case 1021. It may have been that the order was signed only by Mr. Macey and by the Land Commissioner and that you are still holding it for signature by the Governor. In any event, I have not received a copy of the order. I have, however, advised management that The Ohio could commence drilling the well. I will appreciate receiving a copy of the order at your convenience.

Very truly yours,

Derilloce of

TC:MK Enc.2

The Chio Cil Co.

Legal Department

VI. Hume Everett Thomas Sr. McElroy J. C. Terrell Couck

April 5, 1956

P.O.Box 3128 Houston, Texas

Ada Dearnley and Associates P. O. Box 1092 Albuquerque, New Mexico

Attention: Mr. Thurman J. Moody

Dear Mr. Moody:

I enclose The Ohio's check No. 92466 in the amount of \$9.55 in payment of your invoice No. 3906 for the transcript in Case 1021 before the Oil Conservation Commission.

Please accept my apologies for not having sent the check sconer; however, I delayed mailing the check until I could write this letter and send you a copy of the transcript with such corrections as Mr. Spellman and I could make. Of course, the corrections indicated on the enclosed copy are for the most part necessarily based upon our memory and I recognize that we may be in error. On the other hand, some of the corrections are very obviously the result of misunderstanding the testimony, the transcript being phonetically similar but obviously not the same as the actual testimony. For example, I refer to page 7 where the word "dry" is used instead of the word "drive".

My purpose in sending you the enclosed corrected copy of the transcript is not to be critical, but, on the contrary, I felt it might be of some belp to you in the future. Perhaps, until you have become more familiar with some of the terminology you are likely to encounter in matters pertaining to oil and gas, it would be advisable to supplement your stenotype notes by means of a tape recorder. As I recall, a tape recorder was being used during all or a part of the hearing in Case 1021. A playback of that tape, if available, might be helpful in indicating the benefits of such double checking. In any event, it would seem to me that you would find it beneficial to devise some system of editing your transcripts by one who is more familiar with the terminology likely to be encountered at hearings of this kind.

I am sure you recall that you also took the record in the case where Sinclair sought to amend the Pool Rules in the Dean-Devonian and the Dean-Pennsylvanian fields to permit oil-oil dual completions. I have

April 5, 1956 Hr. Thurman J. Moody Page 2

received the transcript in that case, but have not had an opportunity to read it carefully. In scanning through it I observe that the word "ways" is used in several places where obviously the word used in the testimony was "waste".

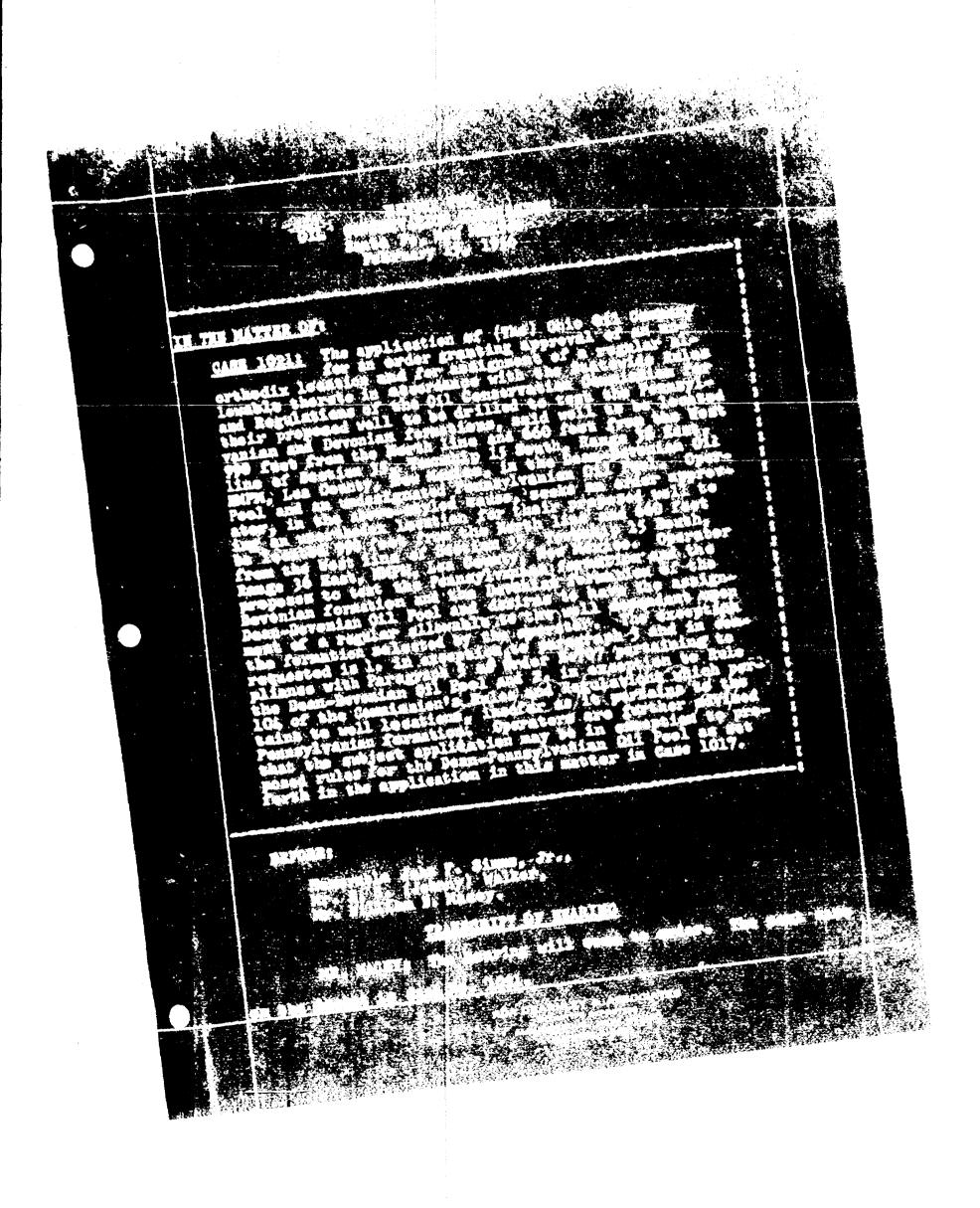
I certainly hope that my comments and suggestions will be of some assistance to you. As I stated, they are intended only for that purpose.

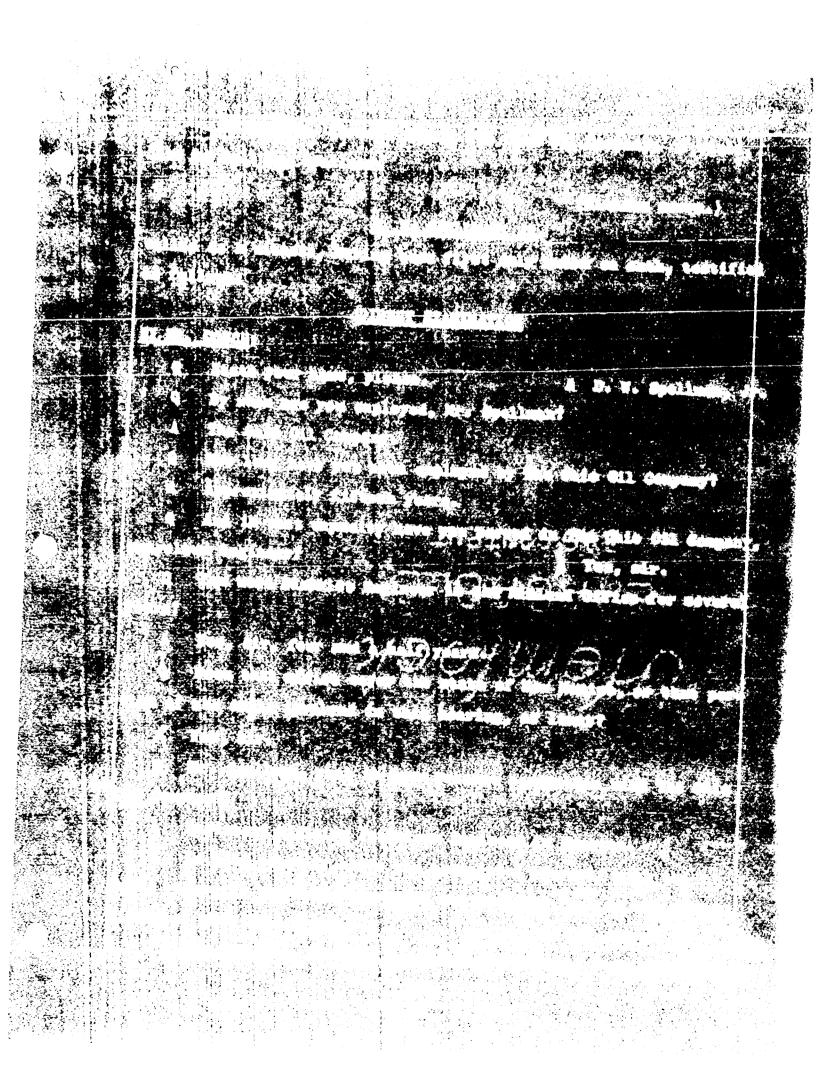
Very truly yours,

J. O. Terrell Couch

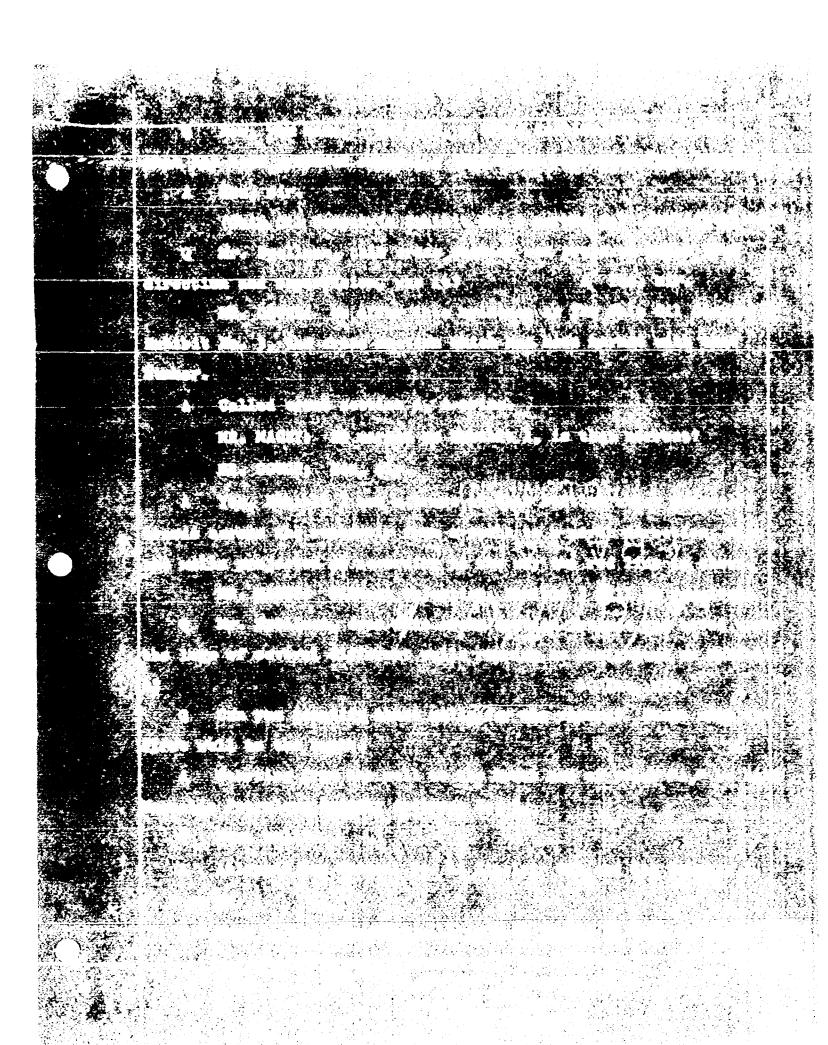
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cc - Mr. A. L. Porter (w/enc.)
Acting Director
Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico





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 - A We amticulate there.
- Q More, in the industrie diagram indicated as lighthan

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as the time shat the vator table would have removed the two of the productive marking in the well if it were located 660 from the next line of the median of the median.

Q Thank you, sir. Now, that sail, then, under nermal condition would not be projugated by a well located at that 600 location?

A That is right.

Q And moving to the third disgress on our Exhibit No. 4, state what the red colorest persion indicates there?

A It indicates the push thing as regards a will 980 feet from the nearth line of the medical has been been all their would be remained in the devenies at the time the miles table would have remained the top of the productive medical in that legition.

G That is oil which would not be precessable through the will legated at the 330 from the would line of the legat

A That is right.

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And the size of the state of th

A list in my egisten.

G. In your opinion, while it or not protect the correlative rights of The Chio Cil Soupenri A It would.

In your opinion, Mr. smallest, if a well is required to be drilled at the executor location, would it be a certainty that we would be able to complete a well in the Meyonian Squarion?

A You never have that assurence when you dill a well.

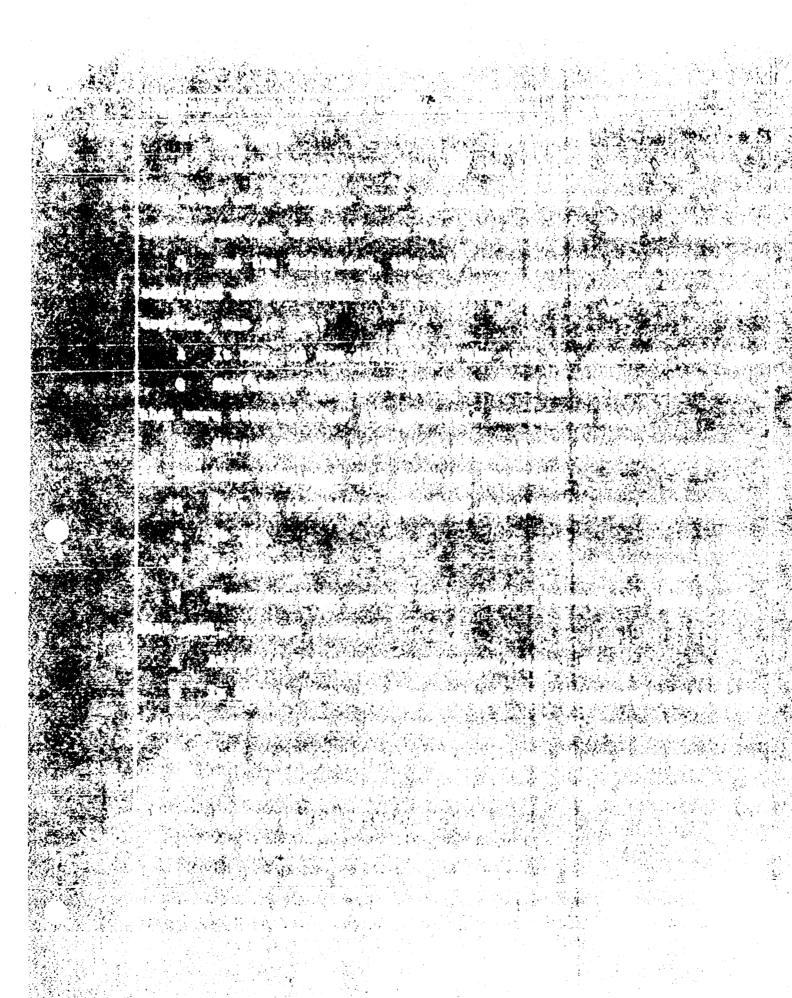
Q As indicated by the Harkrider well, would a expect to encounter some difficulty completing a well in our center location because of that similarity in position?

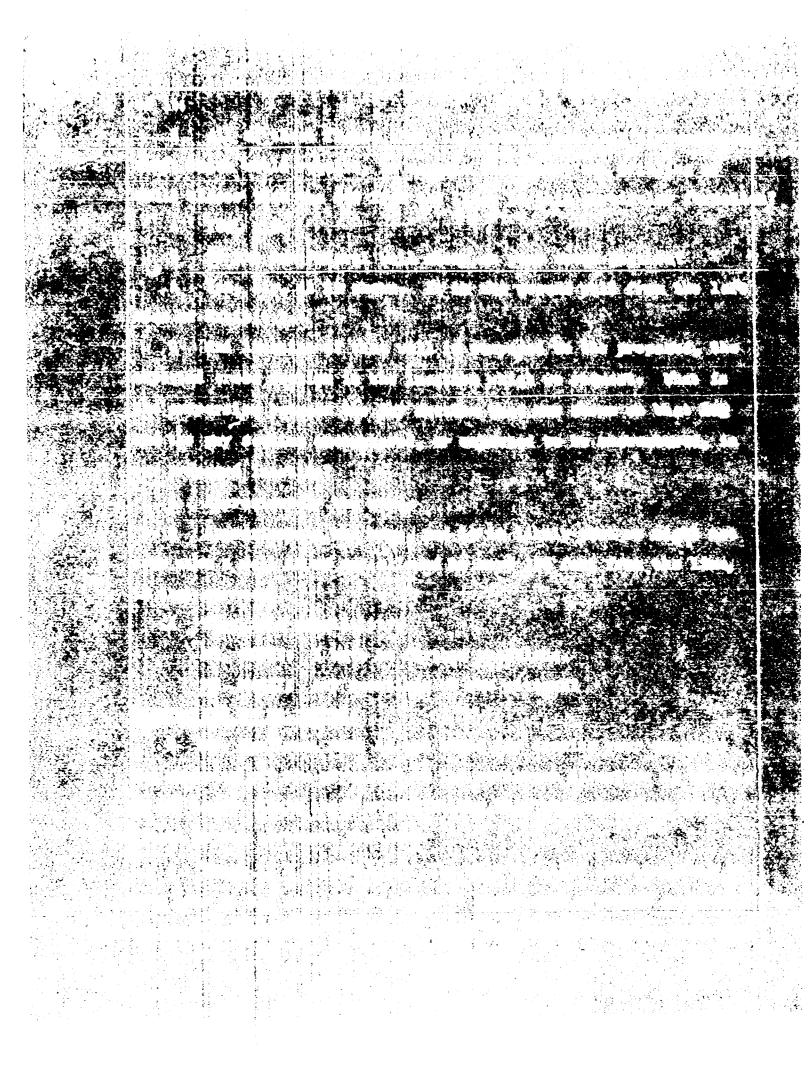
A We would have more difficulty, we believe, then we would in the one 990 from the nerth line, because there would be less grous section in which to make a possible.

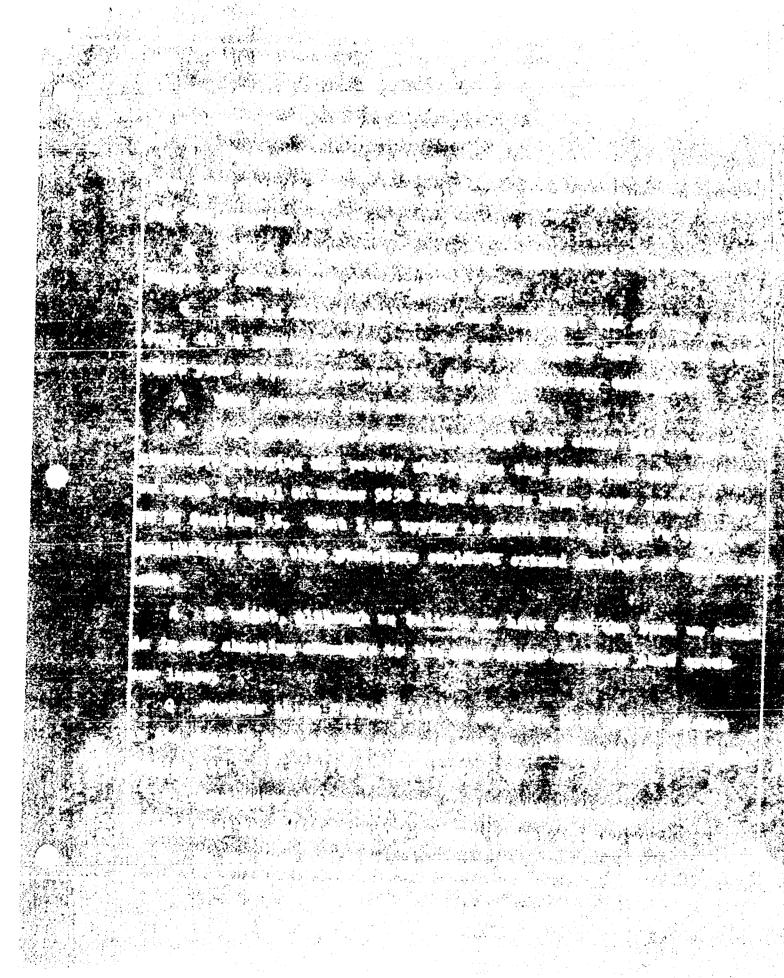
Q Mr. Spellman, is order for the Chile Gil Company to have a call object that is a partial to the cil the cil the description for the cil the

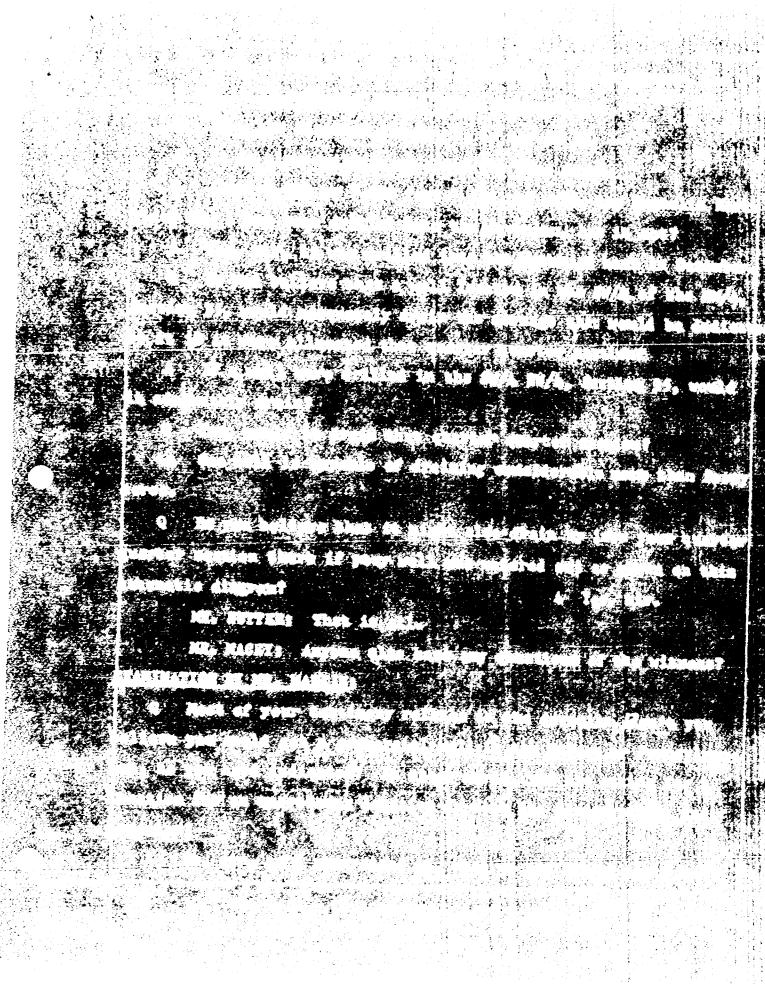
the Military Residence of the Control of the State of the

- A THE RESIDENCE OF SERVICE
- The last that has been the appell of those six wells that
 - to it is the state of the state of the state of the state?
- doe well that was drilling, the Stacing 396 Me. 1 has been maked at a florestian producer, and the Sugnelia --
- A line to the cross section, in it met?
- 4 And emother well is being completed as a producer, one of
- A The Magneta Markrider has been completed. However it's not
 - Q That is the one that is being put on the pump?
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NR. MARKY Desc anything didn have a question?

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The first four Aprile the Benefit of the Second Sec

That is correctly considered to the second of the second o

16. Charles 2 states that is all.

16. March an Paralus questions of the Witness 1

Michael accomply

Do you have anything further?

MR. CONCH! Me. M.

MR. MANUELS . He won having a standard proper should wish to make

Mr. cours If there age any phatemants that sen be made.

MR. MAGNES Does anythin have a statement to be made in this

IR. HARRES. May it please the Consignies, I represent Sinclair Oil and Can Company, and while we do not have my testimony which we desire to effor in this case, we would like to make a state ment in opposition to the continuation.

Some months are Standards Standards and the Summary and are application described by a subject to the standard standards are applications. The standards are also become a summary and standards are applications and standards are also become a summary and standards are also become a summ

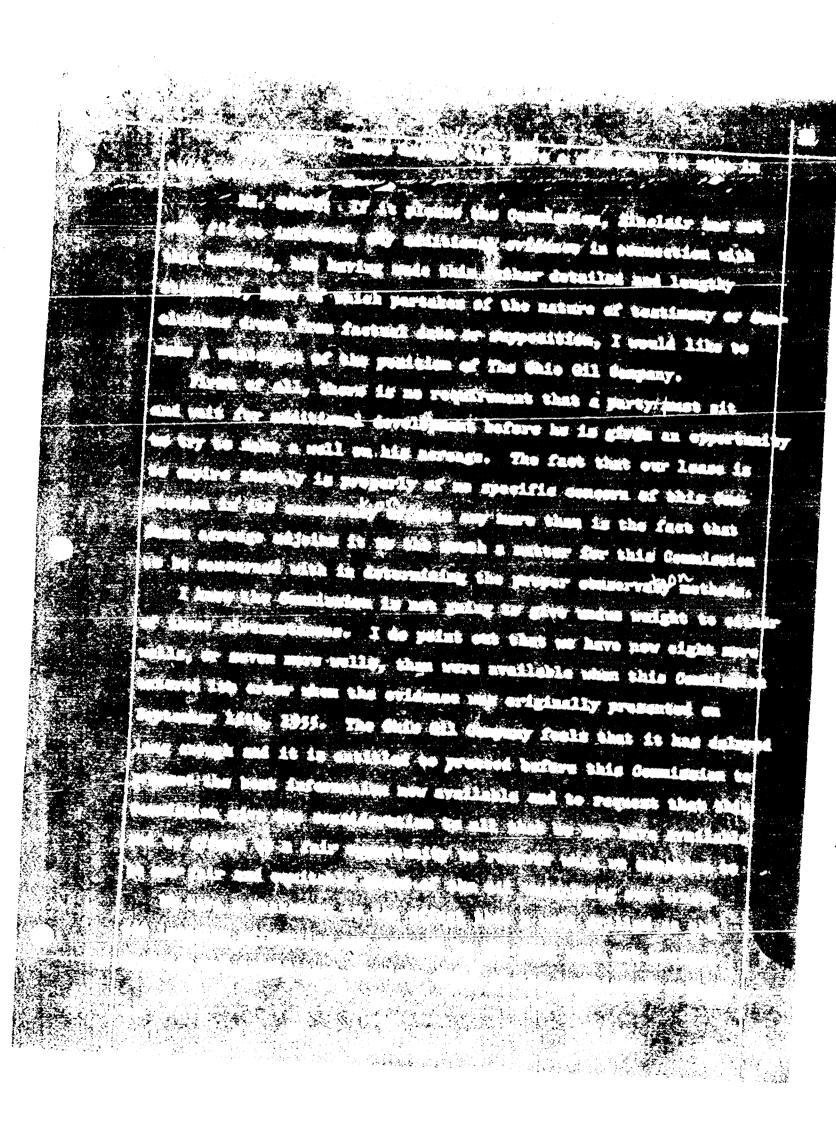
On Getcher lyin, 1959, after that hearing and after the Semisison heard testimeny, the application was granted by order entered on that date. That order provides that all valls drilled in the Devenius Peol be logated in the center of each Governmental quarter quarter section with a telerance of 150 feet in any direction to

groid surface destructions.

It will be noted that that order does not provide a tolerance of 150 feet that may be had in order to gain structural advantage. Simulair Oil and Cas Company on the State Leave No. 396 adjoining the ferty seres in quanties have on the south, and on the east. The State Leave No. 113, sufar as Simulair Oil and Gas Company is sencerned, it proposes to comply with this Commission's order and drill its wells in the senter of the quarter quarter section unless some circumstances may develop which we have no information about at the present time. We believe that this field should be develope on a uniform pattern in secendaries with this Commission's orders.

Simplest, at the present time in the two of thing on the State Lease No. 196 which should have been described as the south.

If this Committee which has been been also been such as the State S



in the parent, to indicate that or support it?

I invite the Counterion's attention to the record in Case 958 a to the almost emplote lask of evidence that was available at that time to require absolutely that all wells in this field be drilled on the center of the ferties. I further suggest that we consider, at this time, the fact that the State-wide rules recognise that a uniform pattern is a good thing to begin with, and that the wildest locations must be in the center of the forty with only a hundred foot telerance, but the State-wide Rules also reco oil field, once it is found that it is fair to permit the op to drill within 330 feet of the line, in some cases perha should be probiblised. We feel, in this case, that it necessary to make the drilling is the center going to have a fair chance in view of the by the others, this The Chie Gil Company is entitled to drill its well 330 feet from the line where it will not have a structural advantage, but a structural opportunity.

MR. NACEY: Does anyone else have a statement in this case?
If not, we will take the case under advisement.

STATE OF NEW MEXICO)

Letter and Associate the Control of the Control of

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF COMSIDERING:

CASE NO. 1021 Order No. R-778

THE MATTER OF THE APPLICATION OF THE ORIO OIL COMPANY FOR AN ORDER GRANTING APPROVAL OF AN UNDETHODOX LOCATION FOR THEIR PROFORED WELL IN EXCEPTION TO PARAGRAPH 3 AND IN COMPLIANCE WITH PARAGRAPH 5 OF THE EPECIAL RULES AND REGULATIONS FOR THE BRAN-DEVONIAN OIL POOL AS BET FORT IN ORDER R-707. SAID WELL TO BE LOCATED SOO FERT FROM THE WORTH LIME AND GCO FEET FROM THE WEST LIME OF SECTION 35, TOWNSEIP 15 SOUTH, RANGE 26 RAST, MMPM, LEA COUNTY, NEW MEXICO, IN THE DEAN-DEVONIAN OIL POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing on February 15, 1956, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

MOW, on this $29^{\frac{1}{2}}$ day of March 1956, the Commission, a quorum being present, having considered the evidence adduced at said hearing and being fully advised in the premises,

FINDS:

- (1) That due notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That The Ohio Oil Company, applicant in this case, is the owner of oil and gas leases from A. C. Dean et al covering among other lands the NW/4 NW/4 of Section 35, Township 15 South, Bange 36 East, NMPM, Lea County, New Mexico.
- (3) That applicant proposes to drill a well in the Dean-Devonian Oil Pool, said well to be located 990 feet from the North line and 660 feet from the West line of Section 35, Township 15 South, Range 36 East, NAPM, Les County, New Mexico.
- (4) That denial of this application will deprive applicant of a fair opportunity to recover its just and equitable share of the oil and gas under the NW/4 of the NW/4 of said Section 35.

Order No. R-778

(5) That the drilling and production of the proposed well at the location and in the manner stated above will not cause but will prevent waste and will protect correlative rights.

IT IS THEREFORE ORDERED:

That the application of The Ohio Oil Company for an order granting approval for an unorthodox location for a proposed well in the Bean-Devonian Pool to be located 900 feet from the North line and 660 feet from the West line of Section 35, Township 15 South, Range 36 East, NEPM, Lea County, New Mexico, be and the same is hereby approved and granted.

DONE at Santa Fe, New Mexico on the day and year hereinabove designated.

> STATE OF NEW MEXICO OTLZ COMBERVATION COMMISSION

John 7 Su JOHN F. SIMMS, Chairman

E. S. WALKER, Monday

W. B. MACEY, Number and Secretary

