

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
December 16, 1963

EXAMINER HEARING

IN THE MATTER OF:)

Application of the British American Oil Pro-)
ducing Company for a unit agreement, Lea County,)
New Mexico. Applicant, in the above-styled cause)
seeks approval of the North Wilson Deep Unit)
Area comprising 1,905 acres, more or less, of)
State land in Township 20 South, Range 36 East,)
and Township 21 South, Range 35 East, Lea County)
New Mexico.)

Case No. 2960

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.

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MR. UTZ: The next case is Case 2960.

MR. DURRETT: Application of the British American Oil Producing Company for a unit agreement, Lea County, New Mexico.

MR. BRATTON: Howard Bratton on behalf of the Applicant. We have two witnesses.

MR. UTZ: Are there other appearances?

(Witnesses sworn.)

(Whereupon, Applicant's Exhibits Nos. 1, 2 and 3 marked for identification.)

JACK W. GAZZALE, called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BRATTON:

Q Will you state your name, by whom you are employed and in what capacity?

A My name is Jack W. Gazzale. I am employed by the British American Oil Producing Company as Division Landman at Midland, Texas.

Q As such have you been in charge of the North Wilson Deep Unit Area in Lea County, New Mexico?

A Yes, sir.

Q And you are familiar with that area and the unit agreement which is the subject of this hearing?

A I am.

Q Referring to Exhibit Number 1 which is a copy of the



proposed unit agreement, is the area embraced in the unit set out on Page 2 of that unit agreement?

A It is.

Q Total 2,145.95 acres?

A That's correct, below the depth of 5,200 feet.

Q This is a deep unit unitizing the formation below 5,200 feet?

A That's correct.

Q It is all State land, is that correct?

A That's correct.

Q Has the unit agreement been approved by the State Land Office as to form and area?

A It has.

Q What commitments do you have from the operators within the proposed unit area?

A All of the operators with the exception of Amerada, which has approximately 3.7 percent interest in it, have all orally agreed to sign the unit agreement. We have a representative from Amerada here who would make a statement if necessary, as to their intent.

Q Amerada is just in the process of clearing, is that correct?

A That's correct.

Q So, actually, you will have 100 percent commitment to the unit agreement?

A We do.

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Q What type of test is proposed?

A It will be a 13,500 foot Devonian test.

Q Who will be the operator?

A The British American Oil Producing Company.

Q Where is the initial test well to be located?

A It will be 1,890 from the East and 660 from the South of Section 31, Township 20 South, Range 36 East.

Q Is the form of unit agreement a standard form of unit agreement for all State lands?

A It is.

Q Is there anything further you care to state in connection with the unit agreement?

A I believe that's all I have to say.

MR. BRATTON: I have no further questions of this witness. We will have a geologic witness testify on Number 2 and 3.

MR. UTZ: Any questions of the witness? The witness may be excused.

(Witness excused.)

LEWIS G. FEARING, called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BRATTON:

Q State your name, occupation and address.

A My name is Lewis G. Fearing, New Mexico Geologist for British American Oil Producing Company, and I also live in Texas.



Q Have you previously testified before this Commission as an expert geologic witness?

A Yes, I have.

Q Are you familiar with the North Wilson Deep Unit, the matters contained in the application in this hearing?

A Yes, I am.

MR. BRATTON: Are the witness's qualifications acceptable?

MR. UTZ: Yes, sir, they are.

Q Turn to your Exhibit Number 2. Is that a structure map contoured on the top of the Mississippian formation?

A It is a seismic interpretation of the structure at the approximate Mississippian level.

Q Would you explain what it shows as to the structure, with relation to the proposed unit outline?

A Well, this interpretation shows an anti-clinal structure trending north-northeast to south-southwest, approximately three miles long a mile and a half wide, with closure of approximately 200 to 300 feet. The basis for the unit outline is at the minus 9,600 foot contour.

Q Now, this is contoured on the top of the Mississippian; how far below that is the Devonian?

A Approximately 700 feet.

Q And you would anticipate your Devonian structure to be substantially similar, is that correct?

A Yes, this is usually the case in seismic investigation in



New Mexico.

Q Where is the proposed unit with relation to other Devonian production, Mr. Fearing?

A Well, this unit is located seven miles southeast of the Lea County Devonian field. Geologically it is four miles west of the faulted western flank of the Central Basin Platform. Is that sufficient?

Q Yes. The unit is based on seismic work, is that correct?

A This is so.

Q And your subsea depth is minus 9,600 and your total depth will be approximately 13,500, is that correct?

A Yes. In that regard we will make sufficient penetration into the Devonian dolomite to get an adequate test of the fluids. It happens that the Devonian in here carries about a 40 to 50 foot dense limestone cap.

Q Mr. Fearing, turn to your Exhibit 3, which is your geologic summary of the area. Does Page 1 of that substantially reflect what you have testified to in connection with Exhibit Number 2?

A Yes, it does. I would like to add that this interpretation is based on approximately thirty miles of continuous seismic profiling. This is fairly new work, using advanced instrumentation 60 shot-hole patterns. We feel like the data is reliable. It does contain the inherent errors of all seismic work at this particular depth.



Q What other formation do you anticipate passing through on the way down?

A The second page of the attached geological report shows the formation below 5,200. That's where our rights start in this unit, and we expect the top of the Delaware Sandstone to be at 5,300. We expect to see 2,500 feet of Delaware Mountain Group with a random porosity of questionable producing possibilities in this area.

The Bone Spring formation below that is 3,000 feet thick. That also contains random dolomite zones in this area which can possibly produce, but it would have no bearing on structure. It more than likely would be a stratigraphic situation, the extent of which we could not predict.

The Wolfcamp, Strawn and Atoka from 10,800 to 12,000, and there are no predictions that we can make for that at this time.

The Morrow Series from 12,000 to 12,600 will contain thin zones of quartz conglomerate, which can be produced primarily by stratigraphic entrapment. We make no prediction for that on this unit.

Under the Mississippian section the primary section is the dolomite depth on structure as we have shown it here.

Q What will be the cost of the initial test well, roughly?

A Members of the Unit will be estimating \$362,000.00 dry-hole money, \$463,000.00 for a producer.

Q Based on the information which you have is the proposed



unit outline a rough approximation of the feature as you now visualize it?

A Yes, sir, it is.

Q In your opinion will the granting of this application be in the interest of conservation, and will the operation of this area under a unit result in conservation and prevention of waste?

A That's my opinion.

Q Were Exhibits 2 and 3 prepared by you or under your supervision?

A They were prepared by me.

MR. BRATTON: We would offer in evidence Exhibits 1 through 3, and we have no further questions at this time.

MR. UTZ: Without objection Exhibits 1, 2 and 3 will be entered into the record in this case.

(Whereupon, Applicant's Exhibits Nos. 1, 2 and 3 were entered in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Fearing, this structure map is in the Mississippian zone then?

A Approximate Mississippian then.

Q You have no idea what part of the Mississippian zone?

A Well, usually this seismic event on the seismographs will occur at that point between the basal Morrow shales and the Mississippian lime. That's usually the place that the event occurs,



so it's probably near the top of the Mississippian.

MR. UTZ: Are there any other questions?

MR. DURRETT: Yes, sir, I have a question.

BY MR. DURRETT:

Q Was there any geological reason for not trying to include the Texaco acreage which appears at the southwest quarter of Section 31 in the north part of your unit?

A No geological reason.

MR. DURRETT: I have a question of the landman if we may recall him after this witness has finished testifying.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

MR. BRATTON: You want to know whether Texaco will join the unit or not?

JACK W. GAZZALE, recalled as a witness, having been previously duly sworn, testified further as follows:

CROSS EXAMINATION

BY MR. DURRETT:

Q I have a question concerning the Texaco acreage which appears at the southwest quarter of Section 31 in the north part of your unit.

A Yes, sir.

Q Did you contact Texaco?

A I did.

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Q Would you tell us what they responded?

A We asked them to join the unit; they refused. They have agreed to support the drilling of this test with a dry-hole contribution of a dollar and a half a foot.

Q And your unit does contain, or does it contain a provision where they can join later if they want to, to expand the unit to include their acreage?

A I can't answer that.

MR. BRATTON: I believe the unit to be expanded would take the unanimous consent of the operators, and, of course, the Land Commissioner.

Q (By Mr. Durrett) At any rate they were given the opportunity to join, is that correct?

A They were.

MR. DURRETT: Thank you.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

MR. DENTON: My name is Joe B. Denton. I'm with Amerada Petroleum Corporation. My management has authorized me to say that we are in agreement with this unit and we are members of the unit.

MR. UTZ: Any other statements?

MR. BRATTON: I just would like to state we would like to start the well during this year, so any expeditious treatment



of the order would be appreciated.

MR. UTZ: The case will be taken 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.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 26th day of December, 1963.

Ada Dearnley
Notary Public - Court Reporter

My Commission Expires:
June 19, 1967

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2960, heard by me on Dec. 16, 1963.
[Signature], Examiner
New Mexico Oil Conservation Commission

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