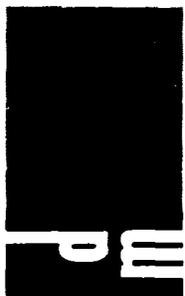


dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 21, 1968

IN THE MATTER OF:)
)
Application of Pan American)
Petroleum Corporation for a)
Unit Agreement, Chaves County,)
New Mexico.)
)

Case No. 3825

BEFORE: D. S. NUTTER,
Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please.
The first case this morning will be Case 3825.

MR. HATCH: Application of Pan American Petroleum Corporation for a unit agreement, Chaves County, New Mexico.

MR. NUTTER: I might point out that Case 3825 has been heard. There is a record in the Case. Due to a slight mistake in advertisement in Chaves County newspaper, we had to re-open the case. Are there any appearances in Case 3825? If not, the case stands.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter 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, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand this 28th day of August, 1968.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3825 *Ada Dearnley*
dated by me on 8/27, 1968, ADA DEARNLEY
Ada Dearnley, Examiner
New Mexico Oil Conservation Commission

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 7, 1968

EXAMINER HEARING

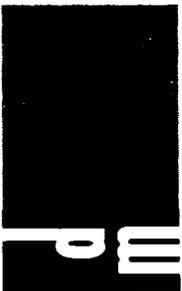
IN THE MATTER OF:)

Application of Pan American)
Petroleum Corporation for a unit)
agreement, Chaves County, New Mexico.)
-----)

CASE No. 3825

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING



MR. UTZ: Case 3825.

MR. HATCH: Case 3825. Application of Pan American Petroleum Corporation for a unit agreement, Chaves County, New Mexico.

MR. BUELL: May it please the Examiner, for Pan American Petroleum Corporation, Guy Buell. We will have two witnesses, neither of which have been sworn.

(Witnesses sworn)

MR. UTZ: Are there any other appearances in this case?

(Whereupon, Applicant's Exhibits numbered 1 through 6 were marked for identification)

* * *

J O E W. D U R K E E, called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Durkee, would you state your complete name, by whom you are employed and in what capacity and in what location, please, sir?

A Joe W. Durkee, Staff Lineman, Pan American Petroleum Corporation, Fort Worth, Texas.

Q Does your office have supervision over Pan American's activities in land matters in southeast New Mexico, and

particularly, in Chaves County, New Mexico?

A Yes.

Q All right, sir. In connection with your work in our land department, are you familiar with the contract and the instruments that have been prepared to form this subject exploratory unit that we're here on today?

A Yes.

Q All right, sir. In connection with that, would you look first at what has been identified as our Exhibit Number 1. What is that exhibit?

A That's our proposed unit agreement for the ~~East~~ Buffalo Valley unit.

Q All right, sir. I believe, attached to Exhibit 1, the unit agreement, is a plat which is marked Exhibit A, is that correct?

A That's correct.

Q What does it reflect, Mr. Durkee?

A It reflects the boundaries of the proposed unit and the status of the acreage within.

Q Do you recall the total amount of surface acres within the boundaries of this unit?

A 15,350, approximately.

Q All right, sir. As of this time, have all the owners of the interests committed --

A No.

Q -- their interests to this exploratory unit?

A No, they have not.

Q How many surface acres are not at this time not committed?

A 880.

Q And on the copy of the plat which the Examiner has, official exhibit 1, and the copies that Mr. Hatch has, have you encircled that 880 acres in red so that the Examiner and the counsel can see the tracts that aren't committed?

A Yes.

Q All right, sir. Let me ask you this; Do you feel that we have enough acreage committed to give us effective operating control over this exploratory unit?

A Yes. We have approximately 94.27 percent committed.

Q Less than six percent uncommitted?

A Correct.

Q While we're talking about this percentage committed, let's look also at Exhibit 2. What is that, Mr. Durkee?

A That reflects the amount of acreage in the unit as Federal, State, Fee percentages committed and percentages uncommitted.

Q All right, sir. So that the Examiner can tell while he's looking at our plat that has the uncommitted acreage

colored, where is the proposed location from the wildcat exploratory well that will be drilled on this unit?

A It will be located in Section 13, 14 South, 28 East, 1980 feet from the south and east line of Section 13.

Q And the unit agreement, Exhibit Number 1, does have a mandatory drilling operation on it?

A Yes, it does.

Q How much time do we have after all final approvals are obtained to commence this wildcat well?

A Six months.

Q Do you recall the depth that we're committed to drill it to?

A 9500 feet unless the top of the Mississippi is encountered at a lesser depth.

Q All right, sir. Look now at what has been identified as our Exhibit Number 3. What is that exhibit?

A I'm not sure of the number you've got.

Q It's a letter from the U.S.G.S.

A Oh. Well, the letter from the U. S. Geological Survey giving preliminary approval as to --

Q All right, sir. And Exhibit Number 4, what is that exhibit?

A It's a letter from the State Land Commission, also giving preliminary approval as to form.

Q All right, sir. Now, jumping back to Exhibit 1 again, the unit agreement, it is in the almost identical form that we've used here for the formation of both Federal and State and Fee exploratory units?

A Yes, it is.

Q Do you have anything else that you care to add at this time, Mr. Durkee?

A No.

MR. BUELL: That's all we have by way of Direct of Mr. Durkee, Mr. Examiner, and Mr. Ball is the Geologist who will go into the geological data with regard to this unit.

MR. UTZ: Are there any questions of the witness? He may be excused.

(Witness excused.)

* * *

S T A N T O N M. B A L L, called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Ball, since you'll be talking from the exhibits that are on the wall, you might as well remain standing there where you are. Let me ask you to state for the record, your complete name, by whom you are employed, in what capacity and in what location?

A Stanton Ball, Pan American Petroleum. I'm a Geologist, Fort Worth, Texas.

Q Does your office have supervision over our geological activities in southeast New Mexico and, particularly, in Chaves County?

A Yes, it does.

Q You've never testified before this Commission before today, have you?

A No, I have not.

Q Would you briefly state for the benefit of the Examiner and the record, your educational background in Geology?

A BS, MS and PhD Degrees from the University of Kansas.

Q What have you done since, and when did you get your final degree?

A 1964.

Q And what have you done since graduation, Mr. Ball?

A I have been employed by Pan American.

Q All right, sir. Have you made a study of the particular area in which our East Buffalo Valley exploratory unit is located in Chaves County?

A Yes, I have.

Q All right, sir. In connection with your testimony, first, I'll direct your attention to what has been identified

as our Exhibit Number 5. What is that exhibit?

A This exhibit shows the area of the proposed unit with the boundary of said unit in the heavy black hatched line. It also shows a structural contour line on the basis as drawn on the top of the Morrow-Atoka formation, which is this datum on the corresponding cross-section.

Q And that cross-section has been identified as Exhibit 6, so any time you like, you can jump back and forth and if it will help in your testimony. Let me ask you this before you go any further: What is our principal objective in this wildcat exploratory well?

A Well, as in all our wildcats, we, of course, hope to establish commercial production with this well.

Q Is there any one formation that is our principal target or objective?

A The Morrow-Atoka is our principal objective here. However, as shown in this list on the right, there are other younger formations that we will penetrate on the way to the Morrow-Atoka that we consider secondary objectives in this area, including the Queens, the San Andres, the Wolfcamp and the Pennsylvanian.

Q Do you think we'll encounter the top of the Mississippian by the time we get to a depth of 9500 feet?

A Yes, sir.

Q And you've placed on the Exhibit Number 5 there, your projected tops of these other formations which we'll penetrate on our way down to our total depth objective?

A Yes, sir.

MR. UTZ: Did you say Morrow-Atoka?

THE WITNESS: Morrow-Atoka or Atoka-Morrow.

MR. UTZ: Aren't they two different zones?

THE WITNESS: No, not the way we've mapped the Morrow-Atoka. It's a single formation.

MR. BUELL: It's commonly referred to by a lot of us, Mr. Examiner, as Atoka-Morrow and some of us just call it Morrow.

MR. UTZ: Well, we have designated the Atoka zones and Morrow zones.

MR. BUELL: Is that right?

MR. UTZ: In our nomenclature. So you're calling this Morrow-Atoka one zone?

THE WITNESS: Yes. But it's what you may be calling Morrow in your --

MR. BUELL: I suspect it is, Mr. Ball. And, really, when we drill our well and, hopefully, if it's a producer, and we all want it to be, then we'll thrash that out.

Q (By Mr. Buell) The contours on Exhibit 5, what do they reflect? Are these contours on the Atoka-Morrow?

A Yes. This contour, structural contour, reflects a general southeastward nosing on the top of the Morrow formation. The other contour line is that 200 foot thickness line for the Morrow, and, of course, the placement of those lines are based on regional maps to cover a much bigger area.

Q You've shown the proposed location for our wildcat well with a circle, have you not?

A Yes, in the 1980 feet, southeast, Section 13, 14 South.

Q Let me ask you this: You heard Mr. Durkee's testimony with regard to the fact that a little less than six percent at this time is not committed. He said from an operative standpoint, that wouldn't hinder us at all with this unit. Do you feel in any way, from a geological standpoint or an exploratory standpoint, that smaller amount of sign-up or lack of sign-up will hinder us in any way?

A No, I do not.

Q Do you feel, Mr. Ball, that with regard to the particular area of our exploratory unit, as outlined on Exhibit 5, that we have included within its boundary probably what we feel will be the productive area of the Morrow in this particular locality?

A Yes, for this structure in this specific area.

Q Of course, by its very name, this is an exploratory unit and it's a wildcat well, so we're making projections and

interpretations?

A Yes, sir.

Q Would you like to comment in a little more fuller detail on what your cross-section shows for the benefit of the Examiner?

A The cross-section is shown in relationship to the unit by that red taped line coming down from the northwest to southeast with wells projected in, and a different type of red tape.

Q Actually, none of these wells, the logs of which you're using on your cross-section, are physically located in the exploratory unit?

A That is correct.

Q All right, sir.

A On the cross-section, I think the main things we're trying to show here is that the Morrow formation thins to the northwest. It contains multiple venticular quarter malmstone shown by the yellow color and this is the main perspective zone under this particular proposed unit.

MR. UTZ: I'm not sure where you list the Atoka over here. Is that the orange zone there?

THE WITNESS: Well, the situation is --

MR. UTZ: There's no Morrow over here, though.

THE WITNESS: Well, this is what we think, sir, but

our problem here is that we're using spore pollen for dating these rocks and our data is not yet good enough to differentiate these two, we think, mainly because of thinness that by the time we get to the extreme west end of this cross-section which actually is off the map shown over here, that we do not have any Morrow. This is not proven, yet.

Q (By Mr. Buell) Mr. Ball, do you feel that the approval of this exploratory unit by the New Mexico Oil Conservation Commission will serve conservation in that it will allow development to begin and exploration to begin on this block of acreage in Chaves County?

A Yes, I do.

Q Do you have anything else you would care to add at this time, Mr. Ball?

A No, I don't believe so.

MR. BUELL: May it please the Examiner, that concludes all of our Direct. I would like to formally offer our exhibits 1 through 6 inclusive.

MR. UTZ: Without objection, Exhibits 1 through 6 will be entered into the record in this case. Are there questions of the witness?

(Whereupon, Applicant's Exhibits 1 through 6, inclusive, were admitted into the record)

MR. BUELL: Mr. Examiner, I should make this comment

for the record. Unfortunately, the paper in Roswell omitted publishing the advertisement of this hearing. The Commission has already readvertised it for the August 21st Examiner's Docket. I would like to request of Mr. Hatch that when that case is called, if he would be kind enough to just offer the record that we made here today under the readvertised docket, I would certainly appreciate it.

MR. HATCH: All right.

MR. UTZ: I'll delay an order on this until after the 21st of August.

MR. BUELL: Yes, sir.

MR. UTZ: If there are no questions, the witness may be excused. The case will be taken under advisement.

(Witness excused).

I N D E X

WITNESS	PAGE
JOE W. DURKEE	
Direct Examination by Mr. Buell	2
STANTON M. BALL	
Direct Examination by Mr. Buell	6

<u>EXHIBIT</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's 1 through 6	2	12

