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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 28, 1964

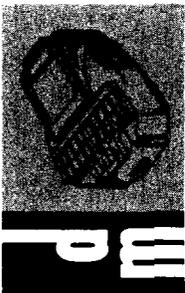
EXAMINER HEARING

IN THE MATTER OF: Application of George W. Strake
for a unit agreement, Eddy County, New Mexico.)
Applicant, in the above-styled cause, seeks)
approval of the Hackberry Deep Unit Area)
comprising 3,832.60 acres, more or less, of)
Federal and State lands in Townships 19 and)
20 South, Ranges 30 and 31 East, Eddy County,)
New Mexico.)

Case No. 3133

BEFORE: DANIEL S. NUTTER, EXAMINER

TRANSCRIPT OF HEARING



MR. NUTTER: We will call Case 3133.

MR. DURRETT: Application of George W. Strake for a unit agreement, Eddy County, New Mexico.

MR. CHRISTY: Sim Christy of Hinkle, Bondurant, and Christy, Roswell, for the applicant, George W. Strake. We have one witness, Mr. Examiner.

(Witness sworn.)

JOHN E. DAVIS

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

DIRECT EXAMINATION

BY MR. CHRISTY:

Q Would you please state your name, address and occupation, by whom you are employed and in what capacity?

A I am John E. Davis. I'm employed by G. W. Strake of Houston, Texas. I'm a Geologist.

Q Mr. Strake, have you previously testified before the regulatory body and had your qualifications as a Geologist accepted?

A Yes, I have.

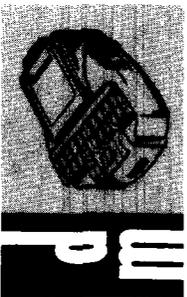
(Whereupon, Applicant's Exhibits Nos. 1 and 2 were marked for identification.)

Q Would you briefly tell the Examiner what is involved in Case 3133?

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A We're asking for a unit designation, Hackberry Deep Unit in Eddy County, New Mexico.

Q You have previously furnished the Commission with copies of the proposed unit agreement?

A Yes.

Q I believe there have been one or two minor changes in the unit agreement, particularly on the exhibit since it has been furnished?

A Yes.

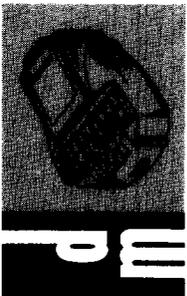
Q Would you tell us what those are?

A A lease expired within this unit and has since been purchased by Tidewater Oil Company.

Q Referring to Applicant's Exhibit 1, would you identify which lease you are speaking of?

A This is Section 36 of 19 South, 30 East, the 440 acres representing the east half of the section, the north half of the northwest quarter, and a 40-acre tract in the southwest quarter. There, too, is an open 40 now in the northwest, northwest of Section 25, which is state acreage.

Q So, as I understand you, the changes in the material furnished by you to the Commission, from that time furnished till now, are that in the acreage shown to be owned by Pan American is now owned by Tidewater and there is an open 40 as depicted on Exhibit 1 being the northwest, northwest of



Section 25?

A That is correct.

Q Speaking of the unit agreement itself, as I understand you, this is a typical Federal State type of unit which unitizes all oil and gas below approximately 4,000 feet?

A Yes.

Q It covers approximately 2800 acres of which 26% is State land and 74% is Federal land?

A That is correct.

Q There is no privately owned land involved?

A That is correct.

Q Have you obtained a unit area designation from the U.S.G.S.?

A Yes, we have.

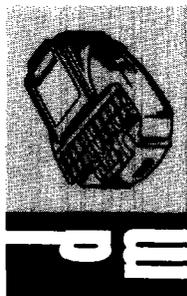
Q Have you submitted copies of the unit agreement to the Commissioner of Public Lands for approval?

A I believe they have been submitted.

Q I believe there are one or two matters that the unit division of the Commissioner's office is still going over with your attorneys in connection with the terms of the unit, but you have a basic agreement on it?

A That is correct.

Q This is the type of unit, exploratory unit, that has heretofore been approved by both the Federal and State



Government and by this Commission, is it not?

A That is right.

MR. CHRISTY: I might state for the Examiner's information that the unit agreement is here; it contains the typical participating areas, the allocation is on an acreage basis except for the working interest; the working interest is allocated pursuant to the terms of the unit operating agreement.

The unit does contain an elimination and contraction provision for undeveloped properties. It contains a provision for subsequent joinder.

I refer the Commission to Section 22 of the unit agreement concerning protection of the potash which has been placed in there both at the request of the Federal and State Government.

Q (By Mr. Christy) Mr. Davis, how about agreements between operators with respect to the terms of the unit agreement, have there been any particular negotiations and so forth?

A We have talked to the people and have a general agreement.

Q You have a general agreement among all the operators and working interest owners?

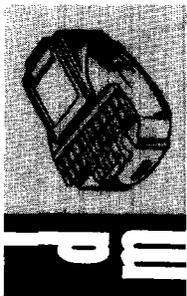
A Yes.

Q With the exception of one?

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A Southern Union who as yet has not committed themselves.

Q I believe they have told you that they may make a dry hole contribution?

A That is correct.

Q How about the overrides, Mr. Strake's overrides, have they been contacted?

A Yes, they have.

Q What is their general feeling?

A They are in agreement with the unitization.

Q I assume you are not able to testify about the other working interest overrides if any?

A Those are in the process of being worked up now.

Q We assume the other operators will bring those other overrides in?

A Yes.

Q Mr. Davis, does Mr. Strake understand that upon final approval of the unit agreement, if it should be approved by this Commission, by the State, by the Federal Government, that he must submit to the Commission a completely executed counterpart of the unit agreement for the Commission's permanent files?

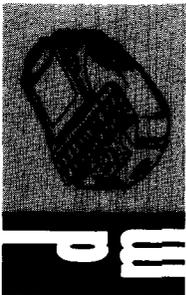
A Yes, he does.

Q Did Mr. Strake understand that the mere approval of this unit agreement by the Commission does not alleviate the

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necessity to comply with the other rules and regulations of the Commission?

A Yes, he does.

Q Let's go into the technical data of the case. Would you refer to what has been marked as Applicant's Exhibit 2, and briefly identify and tell us what it depicts as respects this hearing?

A Exhibit 2 is the geological report that accompanied the application for designation and with it are geological exhibits, one which is the contour map on top of the Strawn lime, showing structure under the proposed Hackberry Deep Unit.

Exhibit 2 is on the Yates and the shallower zone.

Q Is this Yates productive here?

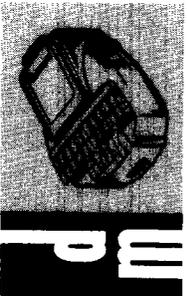
A It is productive, yes, sir. The unit outline I believe is outlined in red on both plats.

Exhibit 3 and 4 are on the Strawn and Yates horizons.

Q Which is which?

A Exhibit 3 is the Strawn lime contour interval of 100 feet. Here we've carried it out of this area into an area producing from the same zone.

The Yates map, Exhibit 4, contoured in 50 foot intervals, is also carried from the Hackberry Unit into the Strawn Lusk unit producing from the same zone.



Q Do I understand you then, that both the Lusk and the Hackberry areas produce from the Yates?

A They do.

Q And Exhibit 4 shows the continuity of the two pools --

A Right.

Q -- in the Yates?

A Yes.

Q Exhibit 3 shows the Lusk, Strawn and what you believe to be will be in the Hackberry?

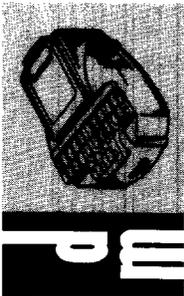
A That is correct.

Q Is there a continuity between the two, the Yates and Strawn, in these two?

A That is what has encouraged us in the proposed possible deep prospect. May I use the larger plats?

MR. CHRISTY: These are the identical ones of the ones that you have. They may be a little easier to read.

A The upper map is the top of the Yates again contoured on a 50 foot interval. The lower is the Strawn formation. We were encouraged in the possibility of a deep structure under the Hackberry unit by the development of our Yates which showed strong Yates feature in the area and by the drilling and development of the Lusk area which showed actual reflection of this deeper zone in the Yates.



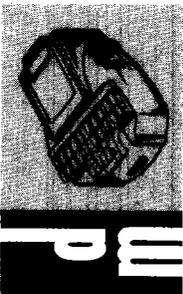
To further enhance the prospect seismic coverage of the area which unfortunately we can't present, but two major companies have let us see their work shows, a strong seismic anomaly in the Greenwood area with south, southeast nosing which held up under the drilling and development under the Strawn.

The same situation is true under the Bronson with the strong anomaly to the south with a strong nosing to the south with an axis in the center of both structures.

Further development since we started on this unit was Pan American No. 3 Big Eddy unit drilled in Section 6, to the south which was completed in the Strawn lime of the same zone as the Lusk, but it had only six feet of good, solid porosity with questionable porosity above which compared favorably with wells on the south end of the Lusk field in the Bronson development.

This is critical because we find that the permeability developed across the Strawn noses and we hope for the same situation to be here with the porosity developing to the north.

Until just recently, and since this map was prepared the porosity pinch-out had been pinned down to this zone right here, this area there have been wells drilled to the north in this zone by Tenneco which have developed a porosity once



again.

However, the characteristics of the reservoir have been different from this Lusk and I think they have a different situation up here.

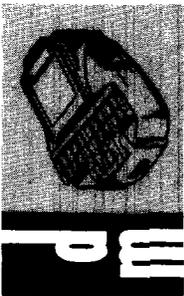
We have projected the porosity pinch-out across the same structural point on the north end of our deep unit. With this evidence, we believe that we have, or we have an area that warrants a deep test which requires this formation of this unit.

Q On that point, Mr. Davis, I believe that the unit agreement provides for the drilling of a Strawn test not to exceed 11,500 feet as the first exploratory well, is that correct?

A That is correct.

Q Mr. Davis, do you have anything else that I have not asked you about that you feel would be pertinent to this case?

A On the Exhibit 2, Mr. Examiner, we have shown a location that was tentatively proposed at the first time that this application was filed in the southwest, southwest of 31. That was done to encourage some of the people at the time of the unit to join. They had agreed if it could be drilled at that point. Since that time they're not in this unit and we are now proposing to drill somewhere in the west half of



31, but it will possibly be moved to the northwest of the section.

Q So, there will be a change in the location of the well as shown at the third page of your Exhibit 2?

A That is correct.

Q You are not quite sure where it's going to be as yet?

A As yet, we're not sure.

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

A They were, yes.

MR. CHRISTY: I believe that's all, Mr. Examiner.

MR. NUTTER: Are there any other questions of the witness?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Davis, the Pan American well that you mentioned, is the one down in the southeast, southeast of 6, is that correct?

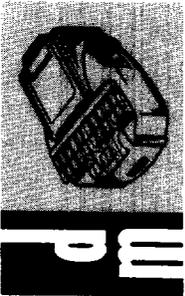
A Yes, in the Big Eddy unit.

Q It had six feet of porosity in the Strawn?

A Six feet of good porosity.

Q Is that well currently producing?

A It is. It was potentialled for 115 barrels flowing.



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I understand it's not making that much now, but that was the original potential.

Q When was that well completed?

A That well was completed this year, the latter part of April. In the Spring of the year.

Q That's the only well that has been drilled to the Pennsylvanian formation anywhere on this anomaly that you show?

A That is correct. That's the only deep control in the area.

Q What percentage of the working interest owners in the area have committed their acreage to the unit, Mr. Davis?

MR. CHRISTY: I might say, Mr. Examiner, I don't believe anyone has signed. We have tentative approval from everyone except Southern Union. We must also exclude that open 40 because we don't know who's going to own it, or exactly how much acreage Southern Union owns. They have 640.

MR. NUTTER: 635.16.

MR. CHRISTY: Yes, out of your 2800.

Q (By Mr. Christy) This tract 13, the Tidewater lease, is the tract that Tidewater bought at the last land sale?

A Yes.

Q While no working interest owners have put their John Henry on the unit agreement, they have tentatively agreed



they would join?

A They have, yes.

Q And the Commissioner of Public Lands has given tentative approval to the unit agreement?

MR. CHRISTY: Subject, as I mentioned, to straightening out one or two problems they had in connection with some State land and features in the unit agreement with relation to State lands.

Q (By Mr. Nutter) What about the U.S.G.S.?

MR. CHRISTY: They have given tentative approval likewise. They have given the area designation as I mentioned.

Q (By Mr. Nutter) This Section 22, regarding potash, was that put in at the request of the U.S.G.S. or State Land Office?

MR. CHRISTY: That was put in, I believe, initially, it was put in at the request of U.S.G. Survey and we added in the language of the approval of the Commissioner with respect to State lands.

Q (By Mr. Nutter) This is within a relatively small distance from the potash mining operations, isn't it?

A Yes, sir, it is.

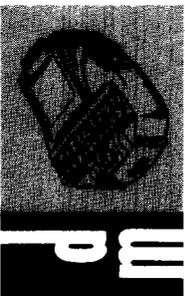
MR. NUTTER: Are there any other questions of Mr. Davis? He may be excused.

(Witness excused.)

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MR. CHRISTY: At this point we would like to offer into evidence Applicant's Exhibits 1 and 2 as corrected on page 3 on Exhibit 2 as testified by the witness.

MR. NUTTER: Changing the location of the well?

MR. CHRISTY: Yes, that's for the applicant.

MR. NUTTER: Applicant's Exhibits 1 and 2 will be admitted into evidence.

(Whereupon, Applicant's Exhibits 1 and 2 were offered and admitted into evidence.)

MR. NUTTER: You have nothing further, Mr. Christy?

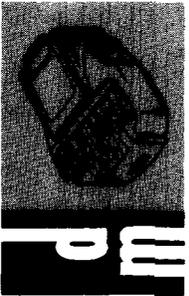
MR. CHRISTY: No, I do not have.

MR. NUTTER: Does anyone have anything to offer in Case 3133? We will take the case under advisement and call Case 3134.

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I N D E X

WITNESS

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JOHN E. DAVIS

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