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August 11, 1965

EXAMINER HEARING

IN THE MATTER OF:

Application of Foster Morrell for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Willow Draw Unit Area comprising 3840 acres, more or less, of State and Federal lands in Township 20 South, Range 26 East, Eddy County, New Mexico.

Case No. 3284

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: We will call the next case, 3284.

MR. DURRETT: Application of Foster Morrell for a unit agreement, Eddy County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, Santa Fe, representing the applicant. We have two witnesses I would like to have sworn, please.

(Witnesses sworn.)

MR. UTZ: Are there appearances in Case 3284? Let the record show there were no other appearances other than the one.

(Whereupon, Applicant's Exhibit A was marked for identification.)

FOSTER MORRELL

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Foster Morrell.

Q Are you the applicant in Case 3284?

A I am.

Q Have you ever testified before the Oil Conservation Commission, Mr. Morrell?

A I have.

Q Have you qualified as a witness?

A I have.

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

MR. UTZ: Yes, sir.

Q Mr. Morrell, are you familiar with the application in Case 3284?

A I am.

Q Would you state briefly what's proposed in this application?

A This is an application for approval of a unit agreement for what is known as the Willow Draw Unit area.

Q Is that located in Eddy County, New Mexico?

A This unit is located in Eddy County and embraces all of Sections 19, 20, 29, 30, 31 and 32, Township 20 South, Range 26 East.

Q Is that acreage all federal, state or in fee, or what is the activity?

A There's a total unit acreage of 3,839.84 acres, of which 3,199.84 or 83.33% are federal lands, and 640 acres, or 14.67% are State of New Mexico land.

Q There are no fee lands in the unit then, is that correct?

A That is correct.

Q Referring to what has been marked as Exhibit A, is that a copy of the Unit Agreement?

A This is a copy of the Unit Agreement.

Q Has it been approved as to form and content by the United States Geological Survey?

A It has been approved by the United States Geological Survey.

Q Has it been approved as to form by the Commissioner of Public Lands?

A It has been approved as to form by the Commissioner of Public Lands.

Q Were there copies of letters in regard to this attached to your application?

A Attached to the application were copies of my request for approval to the Director of the United States Geological Survey and the Commissioner of Public Lands.

Q Now, referring to the exhibit, and directing your attention specifically to Exhibits A and B attached thereto, would you discuss those exhibits, please?

A Exhibit A attached to the Unit Agreement is a map showing the ownership and serial number of leases involved. Exhibit B is more detailed, showing the ownership, the dates of leases, the acreage, the record owners, the overriding royalty owners and working interest owners.

Q Have all of the working interest owners agreed to commit their acreage to this unit?

A We anticipate one hundred percent commitment by the working interest owners to this Unit Agreement.

Q And they have all been contacted?

A They have all been contacted.

Q What is the situation as to overriding royalty owners?

A As to overriding royalty owners, they have been invited to join and we expect a hundred percent participation by them.

Q This is an exploratory unit, is it not?

A It is.

Q What provision does it make as to development of the unit?

A The initial test well is to be drilled to test the entire Morrow formation of Pennsylvanian age or to a depth of not in excess of 10,500 feet.

Q When does that well have to be drilled?

A That has to be commenced within six months from the effective date of the Unit Agreement.

Q Does the Unit Agreement make provision for further exploratory drilling?

A Further exploratory drilling in the absence of

production shall be conducted within six months after completion of the preceding well.

Q Is there a provision then for further drilling after production has been achieved?

A After production has been achieved the development shall be in accordance with the plan of development.

Q And that will be filed subject to approval of anybody?

A Subject to the approval of the supervisor of the United States Geological Survey and the Commissioner of Public Lands.

Q Is this Unit Agreement that is submitted as Exhibit A substantially in the form of unit agreements that have heretofore been approved by this Commission?

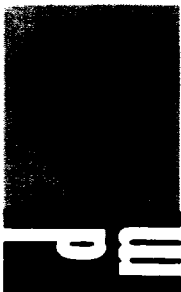
A It is, and this Unit Agreement, as filed with the Commission as Exhibit A, also embraces suggestions made directly by the United States Geological Survey and those made by the Commissioner of Public Lands.

Q Is it a form that is required by the United States Geological Survey?

A It is.

Q Who is the operator designated in the Unit Agreement?

A The unit operator designated in the Unit Agreement



is Humble Oil and Refining Company.

Q And the Unit Agreement has standard provisions for subsequent joinder in the event of non-joinder?

A It does.

Q Was Exhibit A prepared by you or under your supervision?

A It was.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibit A.

MR. UTZ: Without objection, Exhibit A will be entered into the record of this case.

(Whereupon, Applicant's Exhibit A was offered and admitted in evidence.)

MR. KELLAHIN: That's all I have on direct examination.

MR. UTZ: Are there any questions of Mr. Morrell? The witness may be excused.

(Witness excused.)

(Whereupon, Applicant's Exhibit B was marked for identification.)

R. C. GALLAWAY

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A R. C. Gallaway.

Q What business are you engaged in?

A Geologist.

Q Are you an independent consulting geologist?

A Yes.

Q Where are you located?

A Roswell, New Mexico.

Q Have you ever testified before the Oil Conservation Commission and made your qualifications as a geologist a matter of record?

A Yes.

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

MR. UTZ: Yes, sir.

Q Mr. Gallaway, in your capacity as a consulting geologist have you had anything to do with the formation of the proposed Willow Draw Unit?

A Yes. I did the preliminary geology for the unit.

Q Did you make a geological report in that connection?

A Yes, I did.

Q Has that been marked as Exhibit B?

A The geological report will be Exhibit 1 through Exhibit 3-A, which is included in the geological report.

Q And that has been marked as Exhibit B in this hearing?

A Yes.

Q Referring to what has been marked as Exhibit B, would you discuss the contents of that exhibit?

A Yes. The general geology is outlined in the report here, and if you will turn to the exhibits, Exhibit 1, which will be the fourth page, it just gives the geological setting with respect to the unit. The brown color on Exhibit 1 designates the Pennsylvanian production of both upper and lower with respect to the unit. This is more or less of an index map showing the geological province.

Exhibit 2 is a structure map. This is on top of the Wolfcamp. The colors designated on the map indicate the different producing horizons within the Lower Wolfcamp and Pennsylvanian, which are the primary objectives in the area. To simplify things, the yellow is the Lower Pennsylvanian sand section. The other colors are the upper limestone dolomite carbonate areas which are the two primary objectives.

You'll note on this map the regional noses in the Indian Hills area to the southwest, in the corner, the southwest corner of the map. The structure is expressed

by the regional nosing here, a reentering between the Indian Hills area and the green hatched, which is the proposed unit. We have another nose, then, including the proposed unit, and the two main objectives of your carbonate and your lower sandstones up in the McMillan area, which is part of the old Adams Bend.

Exhibit 3 is an isopach map from the top of the Wolfcamp, which would be the top, approximate top of your carbonate limestone buildup throughout this general area to the top of your Atoka sandstone member, which would be the top of your Lower Pennsylvanian.

This map was constructed in order to show the primary deposition of the carbonate area, which, as you can see on Exhibit 3, trends in a northeast direction. This, then, gives us the direct trend and the outline of your shelf facies, your carbonate area and your basin facies. Now, to put the two together, if you'll turn back to Exhibit 2, this overlay then would be a combination of your structure on top of your main carbonate body plus the total thickness of your carbonate area at the primary, when it was primarily deposited to give you the best areas of carbonate buildup on the northeast trend.

To kind of tie the thing together, we're trying to assimilate in the proposed unit area the same set of

environmental conditions that you have in the best producing areas of your Indian Hills area. This points out, this overlay, the combination structure and stratigraphic falls within the area, including the proposed unit and possibly up in the Lake McMillan area, which we're not too concerned with.

To assimilate the best producing areas in the Indian Hills area we have the structure of the proposed unit area. We have the same stratigraphy as proposed in the unit area. The well, if you'll look at the southeast corner of the proposed unit outline, you'll see a yellow well there which is the Gulf well, and that well, of course, is shut in, as all the wells are in this Indian Basin area, potentialized for 1.3 million cubic feet of gas in the Morrow sandstone.

The well also had a good carbonate buildup in the Upper Pennsylvanian. The well next to it in the triangular shape designates the significant show which was a show in another objective in the Atoka, so therefore we figure getting updip from those two objectives, plus a good section in the carbonate, upper carbonate, which is the Gulf well, that we have the best, the most favorable producing trend or reef carbonate buildup as we have in the Indian Hills Unit to the southeast.

Q Mr. Gallaway, is the unit then based primarily on structure or on a combination of structure and --

A It's a combination of structure and paleo structure which would be stratigraphy.

Q And the change in the facies of the formation as it moves across the area, is this correct?

A That's true, the lower outline of Exhibit 3-A will designate separately the basin facies from the shelf facies as we can best portray them.

Q In your opinion is all of the proposed unit area reasonably presumed to be productive of hydrocarbons?

A Yes, sir. We have production surrounding the area.

Q Would the proposed unit substantially cover the productive area in this immediate zone?

A The proposed unit should, in our interpretation, include the best portion of the proposed carbonate buildup.

Q In your opinion is it a logical area for development as a unit?

A Yes, sir, it is.

Q Was Exhibit B prepared by you or under your supervision?

A Yes, sir, it was prepared by me.

MR. KELLAHIN: I would like to offer Exhibit B at this time.

MR. UTZ: Without objection Exhibit B will be entered into evidence in this case.

(Whereupon, Applicant's Exhibit B was offered and admitted in evidence.)

MR. KELLAHIN: That's all I have of this witness.

MR. UTZ: Is there a question of the witness?

The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements in this case? The case will be taken under advisement.

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