

(Mr. Graham reads the notice of publication.)

MR. SPURRIER: Let the record show that the description was read. Mr. Hinkle.

MR. HINKLE: For the purpose of the record, I would like to show an appearance by Clarence E. Hinkle of Hervey, Dow & Hinkle, Roswell, attorneys for Richardson and Bass. This matter is before the Commission upon the application of Richardson and Bass, a co-partnership of Fort Worth, Texas, for the approval of the Big Eddy Unit Agreement. The proposed agreement covers 133,444.29 acres in Eddy and Lea counties, N. M. Of the total area, 115,255.80 acres are federal lands or part of the public domain, 16,639.40 acres are lands of the State of New Mexico and 1,549.09 are fee or privatelyowned lands. This area has heretofore been designated by the USGS as an area suitable and profitable for unitization. There was filed with the application and marked Exhibit A copies of the application which was filed by Richardson and Bass with That applithe USGS for the purpose of designating the area. cation includes a geological report. It also includes two maps, which it is requested be treated as confidential; one. of those maps shows the result of a refraction seismograph survey made of the area, and the other shows the outline of the

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unit area and the character of the lands involved; that is, federal, state and fee lands. There was also filed with the application for approval of the unit three copies of the proposed unit agreement. This unit agreement is in substantially the same form as unit agreement heretofore approved by the Commission, and as heretofore approved as to form by the USGS and the Commissioner of Public Lands. Under the terms of the unit agreement, the unit operator proposed to drill three wells, exploratory wells. One in the eastern part, one in the central, and one in the western part of the projected area. The first of these wells is to be drilled within six months -- started within six months from the time of the approval of the unit. And it will be drilled to test the Ellenberger formation, but in no event is the unit operator required to drill more than 14.500 ft.

We have three witnesses which we would like to have sworn all at once. Mr. Earl Unger, J. B. Lovejoy, and Mr. Perry Bass.

(All witnesses sworn.)

EARL UNGER, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, please.

A Earl Unger.

Q Where do you live, Mr. Unger?

A Midland, Texas.

Q And what business are you engaged in?

A I am a contract geophysical operator.

Q Do you have you own company?

A I do.

Q Are you a graduate engineer or geologist?

A I am, of Carnegie Institute of Technology.

Q What year did you graduate?

A 1936.

Q Are you also a graduate geologist?

A Yes, sir.

Q You say you have your own company?

A Yes, sir.

Q What is the name of it?

A ^Unger Exploration Company.

Q Have you performed any geophysical work in New Mexico for Richardson and Bass?

A Yes, sir, I have.

Q Did you make a geophysical survey of the area in which the proposed Big Eddy Unit Agreement is located?

A I have done that.

Q Did you do all of the work for Richardson and Bass in connection with that area?

A Yes, entirely.

Q Over what period of time?

A Over a period of two years.

Q You are familiar with the geological map which is attached to the application which has been filed for approval of the unit. I ask you whether or not that is a copy of the map which was filed with the application?

A Yes, sir, it is.

Q And what does that map reflect?

A This map reflects the structural conditions in the prepermian formations in this area.

Q Did you prepare the map?

A I did, yes, sir.

Q Was it prepared from the information you obtained in shooting the area?

A Yes, sir, it was prepared by seismograms taken by our company and interpreted by myself.

Q Were you assisted by any other person in making the interpretation?

A There was a later interpretation made by Mr. J. B. Lovejoy of Richardson and Bass. Of course, I had the normal office help of my own.

Q The outside boundary line is the boundary line of the proposed unit area. State whether or not in your opinion the proposed unit area covers all, or substantially all, of the geological structure involved?

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A It is my opinion the boundary does cover the unit area structure which is here call the Big Eddy.

MR. HINKLE: Any questions?

MR. SHEPARD: Any questions? If not, you may be excused.

J. B. LOVEJOY, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name.

A J. B. Lovejoy.

Q Where do you live, Mr. Lovejoy?

A Fort Worth, Texas.

Q What is your business?

A I am chief geologist for Richardson and Bass.

Q Have you been in the oil business for sometime?

A About 25 years.

Q And with other companies before you were with Richardson and Bass?

A Three years with the Texas Company and twenty-five with Gulf and three with Richardson and Bass.

Q Are you familiar with the projected Big Eddy unit area in Eddy and Lea counties, N. M.?

A I am.

Q Have you performed any geological work in connection with that area?

A I have.

Q I hand you the map which was filed with the application for approval of the unit area and ask you whether or not you are familiar with this particular map?

A Yes, sir, this is the map.

Q State whether or not this map reflects the results of the seismograph work that was performed in the area.

A It does.

Q Was this work performed under your direction?

A Under my supervision, yes, sir.

Q And was this map prepared under your supervision?

A ^It was.

Q The heavy line around the outside is the boundary of the proposed unit area. State whether or not in your opinion the proposed unit area covers all, substantially all, of the geo-logical feature involved?

A It does substantially cover all of the unit area under the structure, under the closure.

MR. HINKLE: I believe that is all from Mr. Lovejoy.

MR. SPURRIER: Any questions?

MR. GRAHAM: There was one question. These lines are of what formation?

A That is a question of what formation. They are all reflected seismograph information. And the velocity (?) control in this area is very scant, and any estimate as to the formation would be stretching the point a little bit to far. I can make a guess if that is what you would like to have? It is somewhere around the lower part of the permian or Pennsylvanian. But that is the best it could be under the circumstances.

(Witness excused.)

PERRY BASS, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, please.

A Perry Bass.

Q Are you one of the partners of the partnership of Richardson and Bass?

A Iam.

Q Where do you reside?

A Fort Worth, Texas.

Q You are familiar with the application for approval of the Big Eddy unit agreement shich has been filed before the Commission?

A Yes, I am.

Q And you are familiar with the exhibits which have been filed with the application, being the map showing the result of the seismograph survey which was made of the area, and also the ownership map?

A Yes, sir, I am, sir.

Q Are you familiar with the terms of the prop osed unit

agreement in the form in which it has been filed?

A Yes, sir.

Q State whether or not in your opinion the unit area, proposed unit area, covers all, or substantially all, of the geological feature involved so far as you know?

A It does, sir.

Q The unit agreement provides for the drilling of three exploratory wells; one in the eastern, one in the central, and one in the western sectors; the first of which is to be commenced within six months of the time of the approval of the unit agreement. State whether or not if the unit is approved you intend to drill those wells?

A Upon approval of the unit, we intend to start the first of the exploratory wells, if not previously, and we intend to drill, if necessary, three exploratory wells to determine whether or not the proposed area is productive.

Q But you are not obligated to drill in excess of 14,500 ft.?A No, we are not.

Q State whether or not in your opinion if production is obtained in this area that the unit agreement or operations under it will be in the interests of the conservation of oil and gas and the prevention of waste?

A Very much so, it will, sir.

Q State whether or not in your opinion in the event the field is developed it can be operated more economically.

A It can be operated much more economically and can be operated with greater recovery of the resources discovered.

Q And in the event of secondary recovery, would it be of any particular advantage?

A It would be absolutely essential in secondary recovery to have the field on a unitized basis.

MR. HINKLE: That is all.

MR. SHEPARD: Any questions? If not, you may be excused.

MR. GRAHAM: Is not the area involved in the potash region?

A Yes, some of the potash lands are involved within this unit area, sir. Which is one of the factors which makes it even more essential to conduct any operations in this area on a unitized basis.

MR. GRAHAM: This Commission's consideration of the rights of the potash companies and the oil companies in that area will be carried out in your drilling procedure, I presume?

A Yes, and the rules set forth by the Commission are incorporated, I believe, in substance, within the unit agreement.

MR. GRAHAM: No further questions.

MR. HINKLE: I might add to what Mr. Bass has already stated. This particular unit agreement does vary from the more or less standard form in that it contains provisions which are set forth in the departmental regulations which require

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the operator to do certain things to protect any potash beds from injury in connection with the oil development. Any further questions?

MR. SPURRIER: Any further questions of this witness? If not, the witness may be excused.

(Witness excused.)

(Off the record.)

(Permission given to withdraw the confidential maps introduced in evidence.)

MR. SPURRIER: If there is nothing further, the meeting is adjourned.

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

I HEREBY CERTIFY That the foregoing transcript is a true record of the matters therein contained.

DONE at Albuquerque, N. M., May 2, 1952.

SS

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My Commission Expires: 8-4-52