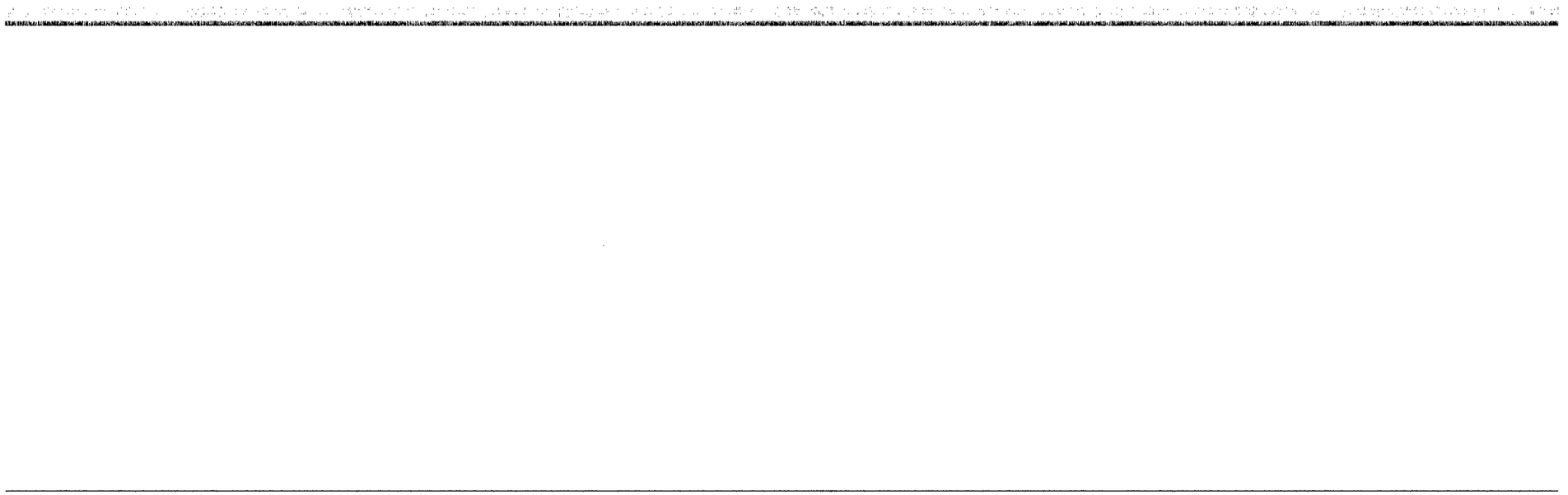

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

23 August 1989

EXAMINER HEARING

IN THE MATTER OF:

Application of Conoco, Inc for an unorthodox oil well location, Lea County, New Mexico.	CASE 9728

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division:

For Conoco, Inc.: W. Thomas Kellahin
Attorney at Law
KELLAHIN, KELLAHIN & AUBREY
P. O. Box 2265
Santa Fe, New Mexico 87504

I N D E X

E X H I B I T S

MR. CATANACH: We'll call the hearing back to order and we'll call Case 9728 at this time. The application of Conoco, Inc., for an unorthodox oil well location, Lea County, New Mexico.

Appearances in this case.

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of the Santa Fe law firm of Kellahin, Kellahin & Aubrey, appearing on behalf of the applicant and I have two witnesses to be sworn.

MR. CATANACH: Any other appearances in this case?

Will the two witnesses please stand and be sworn in?

(Witnesses sworn.)

TIMOTHY L. McGHEE,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. McGhee, Hobbs, New Mexico.

Q Mr. McGhee, what -- by whom are you employed and in what capacity?

A Conoco, Inc., and I'm a landman.

Q Mr. McGhee, on a prior occasion have you testified as a petroleum landman before the Oil Conservation Division?

A No.

Q Would you take a moment and describe what, if any, educational degrees that you hold that are particularly applicable to petroleum land management>

A I have a Bachelor of Science degree in petroleum land management from the University of Michigan.

Q In what year did you obtain that degree?

A 1982.

Q Subsequent to graduation, Mr. McGhee, would you summarize for us what has been your employment experience as a petroleum landman?

A I've got seven years experience with two years as an independent, a year and a half with Getty Oil Company and a year and a half with (unclear) Oil Company, and two years with Conoco.

Q Pursuant to your employment with Conoco are you familiar with the land title information that applies to the spacing unit and the surrounding spacing units for the subject well?

A Yes.

MR. KELLAHIN: At this time,

Mr. Examiner, we tender Mr. McGhee as an expert petroleum landman.

MR. CATANACH: He is so qualified.

Q Mr. McGhee, let me ask you to take what is marked as Conoco Exhibit Number One, and would you first of all simply identify that display for us?

A It's a plat showing Conoco's proposed location, which is located between the Casey Strawn Pool and the Shipp Strawn Pool.

Q And how is that well identified on Exhibit Number One?

A It's identified by a red arrow.

Q And how have you shown the outline of the current pool boundary of the Shipp Strawn Pool?

A Outlined as a regular pool.

Q Okay, and that is the shading in orange?

A Yes, sir.

Q And that represents the current pool boundary as best you can determine for the production allocated to that pool?

A Yes, sir.

Q And what is the pool boundary currently for the Casey Strawn Pool?

A It's shaded in the green.

Q What is Conoco seeking to accomplish with this application, Mr. McGhee?

A We would like authority to drill our West Knowles No. 11 at an unorthodox location and under the Undesignated Shipp Strawn Pool.

Q What would be a standard well location for either of this pools?

A 80-acres.

Q That would be the proration unit assigned to the well, would be an 80-acre tract?

A Yes, sir.

Q And within the 80-acre tract, then, where would a well have to located to be at a standard well location?

A Within 100 foot, 150 foot of the center of the quarter quarter section.

Q Are the pools -- pool rules identical for both the Shipp Strawn and the Casey Strawn Pools?

A Yes, sir.

Q Let's turn to Exhibit Number Two, Mr. McGhee. What have you shown on the Commission Form C-102?

A It's the well location for Conoco's proposed West Knowles 11 Well.

Q And what is the proposed orientation of the 80-acre spacing unit?

A It's a laydown 80, south half of the southeast quarter.

Q And your proposed location is an unorthodox location?

A Yes, sir, that's correct.

Q And what is the unorthodox footage location?

A It's 660 foot from the south line and 330 foot from the east line.

Q Let's turn to Exhibit Number Three, Mr. McGhee. Did you prepare this exhibit as well as the first two exhibits?

A Yes.

Q What have you shown on Exhibit Number Three?

A It shows Conoco's proposed location, indicated by the red arrow and the offset operators.

Q In addition to showing the offsetting operators, what type of wells are identified on the exhibit?

Are these Strawn wells?

A Yes, sir.

Q Do you have any other kind of wells shown on the display other than Strawn wells?

A I believe there are some Devonian wells.

Q Is it your understanding that you are at least at a standard location with regards to the southern boundary of your spacing unit?

A That's correct.

Q Who is the operator of the property to the south of your spacing unit?

A Amerind.

Q When we move to the eastern boundary of your spacing unit, who is the immediately offsetting operator of that spacing unit?

A Conoco.

Q Are the interest owners in the -- in the proposed spacing unit identical to the working interest owners that would be immediately offsetting this well in Section 35?

A Yes, sir, that's correct.

Q Have you sent notices to any of the offset operators, Mr. McGhee?

A They've been sent the applicable AFE for this well, this proposed well.

Q Let me show you Exhibit Number Four. What is this, sir?

A That is our applications that we have sent to the offset operators.

Q All right, these are the return receipt

cards --

A Return receipt cards.

Q -- that you received having sent the application to these offset operators?

A Yes, sir, that's correct.

Q And approximately when did you send those offset operators applications?

A Approximately 45 days ago.

Q All right, it was more than the 20-day notice rule, then.

A Yes, sir. That's correct.

Q In response to the notice did you receive any objections from any of the offset operators or working interest owners?

A No, sir, none.

MR. KELLAHIN: That concludes my examination of Mr. McGhee, Mr. Examiner.

We would move the introduction of his Exhibits One through Four.

MR. CATANACH: Exhibits One through Four will be admitted as evidence.

CROSS EXAMINATION

BY MR. CATANACH:

Q Mr. McGhee, where is BP Exploration's

acreage?

A They are partners with Pennzoil. It's in Section 3, seen in the north half of the northwest quarter.

Q And Union Texas?

A Is to the east -- or the west half of Section 34.

Q And what did you send these companies, again?

A We sent them our application for the -- to use for the unorthodox location.

Q The same application that was filed in this case or --

A The notice.

Q You don't have a copy of the letter you sent them, do you?

A No, sir, I do not.

Q Okay, I've got it in the case file.

MR. CATANACH: That's all the questions I have of this witness. He may be excused.

HANS SHELINE,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Sheline, would you identify yourself and tell us where you reside, sir?

A Hans Sheline, in Hobbs, New Mexico.

Q Mr. Sheline, will you spell your last name for the record?

A S-H-E-L-I-N-E.

Q Mr. Sheline, how are you employed by Conoco, Inc.?

A As an exploration geophysicist.

Q Have you on a prior occasion testified before the New Mexico Oil Conservation Division as a geophysicist?

A No.

Q Would you give us a brief summary of your educational background, sir?

A I have a Bachelor's in geology and engineering from Dartmouth and a Master of Science in ring geophysics from Scripps Institute of Oceanography.

Q When did you obtain your degree from Dartmouth?

A 1978.

Q And your degree from Scripps Institute?

A 1981.

Q Would you summarize for us what has been your employment experience with regards to either geology or geophysics?

A I worked for Los Alamos Scientific Lab for 6 months and for Conoco in various capacities for the last 7-1/2 years.

Q What particular function did you perform for your company with regards to this application for the unorthodox Strawn oil well that's the subject of this hearing?

A Interpretation and mapping of the structure and picking the location for the well.

Q And this well location is picked based upon your recommendation, sir?

A Yes.

Q And did you have available to you sufficient geologic and geophysical information upon which you could submit an opinion for which you had confidence?

A Yes.

Q And do Exhibits Five and Six represent your work product?

A Yes.

MR. KELLAHIN: We tender Mr. Sheline as an expert geophysicist.

MR. CATANACH: He is so qual-

ified.

Q Mr. Sheline, let's take Exhibit Number Five, sir, and would you identify that exhibit for us?

A Yes. Exhibit Number Five is a structure map covering 9 square miles, 7 miles southeast of Lovington, New Mexico.

Q What is the purpose of the well symbols that are identified with the pink dots?

A The fluorescent orange dots are highlighting the dry holes that you see on this map.

Q Describe for us the geologic objective that you're trying to produce from by a well drilled at this location.

A This is the Strawn formation, which is mainly a stratigraphic play and, as you can see from this structure map, I have located the -- not only the structure which you see gently dipping to the east and you see structural noses there, as well, but you also see identified the core of the carbonate buildups that produce in this area; the black dots, the large black dots being the Strawn producers; smaller black dots being producers from other formations.

Q Just to the west of your proposed location is a black dot that's shown as a Strawn producer?

A Now, that's -- that is a Drinkard pro-

ducer. It's a smaller black do. That's the West Knowles No. 1. That's 733 feet west of the proposed location, the West Knowles 11 proposed location.

Q Can you describe for us the reasons that you as a geophysicist have based your opinion on that you need to have an unorthodox location --

A Yes.

Q -- to the east of a standard location?

A Yes. Also on this map you'll notice the blue lines, which represent the locations of seismic data. You can see that there are five lines that cover the proposed location and what's important about these lines is that in addition to the well control that you see on this map, they provide additional structural control and they also identify thickening in the Strawn, which is critical to identify the prospective location.

Q Would a well drilled at the closest standard location, which would be 510 from the southern boundary and 510 from the eastern boundary of that spacing unit, would that be at a point that would penetrate the best structural position with the greatest reservoir thickness?

A No, it would not.

Q How does that compare to the proposed unorthodox location of 660 from the south and 330 from the

east?

A It's very critical to get the location, the subsurface location. as accurately as possible, because these are very discontinuous buildups of porosity in these carbonate buildups, and with this seismic control we've identified what we think is the best location and that is normally a standard location, but because of the special pool rules here, it becomes an unorthodox location, 333 feet from the east line.

Q Can -- can you approximate for us the distance in terms of structure that you gain by moving to the unorthodox location over the closest standard location?

A Could you repeat the question?

Q Yes, sir. You said that the unorthodox location is in a better structural position than the standard location.

A Yes, not just structural but also, if you want to refer now to Exhibit Number Six, what we're seeing here, as identified also in Figure No. 5 by the letters A and B, A being the West Knowles No. 1 which produces from the Drinkard; the B being the Mesa Alcorn No. 1, which was nonproductive in the Strawn, and you see a structural cross section here with the carbonate buildup highlighted underneath the proposed West Knowles 11 location.

So what you see here is a demonstration of why you get these structural noses where you have the carbonate buildup on these -- this regional dip. You see an illustration of the anticipated porosity buildup at the West Knowles No. 11 proposed location and you can see that it's quite critical that you want to locate exactly in the optimum location because it is tricky to get the -- the -- as you can see from the number of dry holes in this area, it's very important to get your location exactly where you want it.

Q What part does structural position play in formulating your opinion on the best location in the structure?

A The structure is important in that it shows where these thickenings occur, where you have, as you look on Exhibit Five, you see these structural noses coincide generally with the producers and that the dry holes, in general, are not located on these structural noses, which indicates the thickening in the Strawn and most often you have the porosity development in the thicker Strawn reservoir.

Q Will approval of the application that seeks the unorthodox location for this well be one that will allow Conoco to potentially recover Strawn oil that might not otherwise be recoverable?

A Yes.

Q Do you see any opportunity to gain an unfair advantage over the correlative rights of any of the offset operators if this application is approved?

A No.

Q And I think you've already told us Exhibits Five and Six were prepared by you, were they not?

A Yes, they were.

MR. KELLAHIN: That concludes my examination of Mr. Sheline.

We would move the introduction of his Exhibits Five and Six.

MR. CATANACH: Exhibits Five and Six will be admitted as evidence.

CROSS EXAMINATION

BY MR. CATANACH:

Q Mr. Sheline, you -- you ran five seismic lines through that area?

A We didn't run those lines. We acquired those through spec and seismic trade.

Q And has Conoco drilled any of these Strawn wells in the past?

A Not as an operator but as a minority participant. We participated in six wells, four of which

have been producers.

Q The West Knowles Well No. 1 did penetrate the Strawn, didn't it?

A Correct.

Q And that was found to have no porosity?

A Very limited porosity. If you look just where the porosity is being anticipated in the West Knowles 11, you can see hints of porosity in the West Knowles No. 1, but that was completed in the Drinkard for 606 barrels of oil a day and was not tested in the Strawn.

Q Because of the fact of the porosity?

A Very limited porosity development.

MR. CATANACH I believe that's all I have of the witness. He may be excused.

MR. KELLAHIN: One more question, Mr. Examiner, if I might.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Do you have a geologic preference as to which of the pools this well is dedicated to?

A Geologically it makes more sense to put it into the Shipp Strawn Pool.

Q And why do you say that, sir?

A If you look back at Exhibit Number One,

you can see that the Shipp Strawn Pool extends up to the bottom of Section 34, whereas the Casey Strawn is closer to the top of 34, and you can see from the structural nose on Exhibit Five that the overall general structural nose pattern extends to northeast up into Section 34.

Q With both pools being on identical special pool rules for each of their pools, you don't see any problem in putting this spacing unit in the Shipp Strawn Pool, do you?

A None at all. They're identical. There is no operational difference.

MR. KELLAHIN: That's all we have, Mr. Examiner.

MR. CATANACH: There being nothing further in this case, Case 9728 will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C. S. R. DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9721, heard by me on August 23 1989.

David R. Catanach, Examiner
Oil Conservation Division