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

17 August 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of Union Pacific Resources Company for pool extension and special pool rules, Lea County, New Mexico, and — CASE 9439

Application of Union Pacific Resources Company for directional drilling and an unorthodox (subsurface) oil well location, Lea County, New Mexico. — 9440

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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I N D E X

E X H I B I T S

MR. CATANACH: Call Case 9439.

MR. STOVALL: Application of Union Pacific Resources Company for pool extension and special pool rules, Lea County, New Mexico.

MR. CATANACH: Are there 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.

We would request at this time that you also call Case 9440 and that the two cases be consolidated for purposes of taking testimony.

MR. CATANACH: Call Case 9440 at this time.

MR. STOVALL: Application of Union Pacific Resources Company for directional drilling and unorthodox subsurface oil well location, Lea County, New Mexico.

MR. CATANACH: Are there any other appearances in these cases?

MR. KELLAHIN: Mr. Examiner, I have two witnesses to be sworn.

MR. CATANACH: Will the witnesses please stand and be sworn in?

(Witnesses sworn.)

JERRY DRAKE, JR.,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Drake, would you please state your name and occupation.

A My name is Jerry Drake, Junior. I'm a geologist with Union Pacific Resources Company in Houston.

Q Mr. Drake, have you on previous occasions testified before the Oil Conservation Division?

A No, I haven't.

Q Would you take a moment and describe to the Examiner when and where you obtained your degree in geology?

A I went to school at Lamar University in Beaumont, Texas. I received a BS degree in geology in 1979.

Q Subsequent to graduation in '79 would you summarize for Mr. Catanach what has been your professional employment experience as a petroleum geologist?

A Okay. I was graduated in December of

'79 and went to work for Union Pacific, Champlin Petroleum Company, as they were called then, in March the 1st of 1980. I've been employed with them since then.

I've worked east Texas and Carthage (sic) Field and I've worked in Bolton (sic) County and Austin Chalk fractured reservoir; did that for about two years, and the rest of my time has been spent working in west Texas and southeast New Mexico.

I've worked about the past year in an Exploitation Group and prior to that I was working exploration.

Q With your company, Mr. Drake, have you been involved in the drilling and picking of well locations with regards to this immediate area?

A Yes.

Q And have you been involved in the re-entry in the subject well and the directional drilling for production in the Vada Devonian Pool?

A Yes.

MR. KELLAHIN: We tender Mr. Drake as an expert petroleum geologist.

MR. CATANACH: He is so qualified.

Q Let me have you go to Exhibit Number One which we've put on the board, Mr. Drake, and before we talk

in detail about that display, would you simply take a moment and describe what information is contained on that exhibit?

A This area that we're looking at is Section 26 and Section 35 in 10 South, 33 East, of Lea County, New Mexico.

The area shown in red here is our area of interest. We drilled one well here, a discovery well for the Vada Devonian Field and we've offset the well here at this location and have deviated the well to this area.

There's no Devonian production right around this area. The areas outlined in green show nearby Devonian producing fields.

All of the production shown through here is shallower production from the Permian or shallow Pennsylvanian pools.

Q When we look at the Vada Devonian Field as it exists now, are there in place yet special pool rules for that production?

A No, it's statewide rules.

Q And that's one of the things you're seeking to accomplish with this application.

A That's right.

Q Is the adoption of certain special pool rules for this pool?

A Right.

Q In drilling wells in this immediate area, Mr. Drake, has your company experienced difficulty with having wellbores that would deviate during drilling?

A Yes, we have. In the first well we had problems with it, the borehole deviating, and the offset that we drilled, we had severe deviation problems with the borehole. We had to go in and steer the well and subsequent to steering of the well we encountered a fault that created problems and we drilled a dry hole.

Q One of the rules, then, you're going to ask Mr. Catanach to adopt is a rule that creates greater flexibility for the drilling of these wells in terms of granting exceptions to the Division's normal rules on directional drilling.

A That's right.

Q In addition, Mr. Drake, have you studied geologically what, in your opinion, ought to be the appropriate temporary spacing for this immediate area?

A Yes. We feel like an 80-acre spacing for this area will be advantageous to the development, the rest of the development for this area.

Q When we look at the Devonian pools shown on Exhibit One, can you identify any of those Devonian Pools that are being developed on 80 acres?

A Bagley Field is the one field in the area that is on 80-acre spacing. The remaining fields are all on 40-acre spacing.

Q Do you have an opinion, sir, as to whether or not some or all of those other Devonian fields being developed on 40 acres are in fact being drilled at spacing patterns that are too dense?

A Yes. On this area in through here it looks like this Moore (sic) Field, that it could have been drained with, probably with a fewer number of wells through there.

Q Let's turn now to the montage of information shown on Exhibit Number Two, Mr. Drake, and initially have you identify each of the sections on Exhibit Two and then we'll go back and talk about each of specific portion of that display.

A Okay. Starting on this side of the cross section, this is a type log from the discovery well that was drilled in the Vada Devonian Field.

This is a structure map shown over our field area; a location map showing the Lea County and the approximate area in Lea County where we are drilling; and a cross section that is shown by this red line on this map through the Vada Devonian Field.

Q When we look at the cross section, Mr.

Drake, have you identified for us on that cross section all of the important key wells within the immediate area?

A Yes.

Q What does it show you?

A Okay, on this-- this cross section runs in a southwest to northeast direction from this well, from the discovery well, up to the dry hole that we drilled there.

Coming across, this fault that's shown here on the map will be in this position here.

This fault that's shown right here would be the fault that's shown on the west side, through this well. This is the fault that we cut in drilling of the well that caused us lots of problems with -- with the deviation. We started having deviation problems, shallower in the section. Before we got to it, we got near the fault and steered, and we steered across the fault and dropped down and encountered the Devonian section shown in the pink color here about a couple hundred feet low to the discovery well.

Q When we look at the structure map that's shown on Exhibit Number Two, do you have an opinion as to what ought to be the initial area that's subject to the special pool rules for the pool?

A Yes. This area outlined in green is the

subject initially for the pool rules of the reservoir.

Q And what is the basis upon which you've reached that opinion, Mr. Drake?

A This fault that we show here is not a bounding or a sealing fault. There's been some production from different areas, like in this field you can get on the downthrown side of the fault and still obtain production from the well and we feel like this fault is -- we're not separating the reservoir across here, but we still have production in this area.

Q Do you have an initial opinion as to what is the likely eastern boundary for the reservoir?

A Yes. Apparently this fault right here is going to be it.

Q And that's the one that you show that was cut --

A That's right.

Q -- by the State 26-2 Well?

A Yes, sir.

Q At this point do you know what is the likely northern or southern limits of production for the pool?

A No, we don't.

Q Initially what have you proposed to be the spacing units for each of the existing wells within the

pool?

A 80 acres.

Q Can you show us how you would orient those 80 acres as to the existing wells?

A This well, the discovery well in Section 26 would be a laydown 80 in this area and the well we're drilling, currently drilling now would be a laydown 80 in Section 35.

Q Do you see any geologic feature or event or information from your geologic studies to show you that geologically we are not likely to see production that can be developed on 80 acres?

A No.

Q There's no event in there that you see now that would preclude, then, 80-acre spacing?

A No. I feel like we have a good chance of draining an 80-acre pattern on this side. This fault is not a sealing fault or trapping fault that's isolating this area from this area.

Q Let's go to the specific information on the type log now and have you identify for the examiner what are the principal features on the type log.

A Okay. The type log is just -- is from this well right here --

Q This is the discovery well?

A The discovery well, yes, and shows a different formation, Glorieta, Tubb, and so forth, down through the section, down through the Devonian section in through here. This is, the Devonian is where we find our pay, where we see these wells in the Devonian.

Q Let me have you help me and let's put up Exhibit Number Three and talk about the deviation and directional drilling problems.

Again locate for us, Mr. Drake, the well that is shown in the profile on Exhibit Number Three.

A It's this well right here shown by the dry hole symbol.

Q Describe in a general way for Mr. Catanach what has been the history with this well.

A Okay. After we drilled the 26-2 and we encountered the Devonian low in the section, we didn't find any reservoir rock there. The rocks were different than they were across the fault.

We found no reservoir, so we plugged back, decided to plug back to 9900 feet and kick off and deviate the well and cross this fault, get in the upthrown block and deviate over to a location, a bottom hole location right here.

We're shooting for a 50-foot radius circle of about 60 feet from the proration line, where the

proration line would be, and our actual bottom location ended up about there.

Q This is the subject of Case 9440 in which this well has already been drilled?

A Yes.

Q You commenced deviation based upon oral approval of the Division?

A That's right.

Q And you now want approval of the final bottom hole target for the well.

A Right.

Q What is the footage location for the subsurface location, if you will, at the top of the Devonian formation in terms of distances from the spacing unit or from the section line?

A (Unclear) think, Deborah --

MS. HAWTHORNE: I've got that information.

A Do you have that?

Q Is it shown on your display?

A The location from the surface location that we drilled is about 615 feet west of -- about 615 feet west of the surface location for the well.

Q Have you shown on the vertical section of Exhibit Number Three where we will find the top of the

Devonian formation?

A Yes. The top of the Devonian is right here.

Q And at what footage is that?

A That's at 12,542.

Q Have you also shown on that vertical section other formations that you penetrated?

A Yes. We penetrated the Woodford Shale in that interval, 12,514. It's also at 11,152. Strawn at 10,551 and the Canyon at 10,072.

Q During the drilling of this well what involvement did you have?

A I was the well site geologist for the well monitoring the drilling. I was out plotting the curves here and for awhile I was out in the field when they were drilling through different pay sections looking for the reservoir.

Q During this drilling, where did you begin to experience the wellbore beginning to deviate?

A Okay. In the drilling of the initial well we had deviation problems up around 90 -- up around -- in this area in through here in the Canyon and down in the Strawn and different places through here it started wandering off on us, and we really got some severe deviations as we got down in here so that's when we went (not clearly

understood.)

Q When you say "down in here" where are we?

A Down around 11,200. We had to go in with the mud motor (sic) back up at 10,700, right in here. And we were having problems all through this interval with it wandering on us.

Q The applicant has requested that the Examiner adopt a poolwide exception to Division Rule 111 concerning deviation tests and directional drilling so that a pool well can be directionally drilled or allowed to deviate more than five degrees in any 500-foot interval provided that the cumulative displacement is not greater than 410 feet from the center of a governmental quarter quarter section, and further provided the wellbore is no closer than 250 feet to an outer boundary of the spacing and proration unit when it encounters the top of the Devonian formation.

Have you reviewed that proposed rule, Mr. Drake?

A Yes, sir.

Q And do you believe that it's necessary in order to provide the operators in the pool the economic -- the flexibility and the economic savings of drilling wells to this pool?

A Yes, sir.

Q Did we have another display for you to discuss? I think we did have a survey from one of the surveyors.

Let me direct your attention at this point to just for the record identify for us Exhibit Number Four.

A Okay, this is a survey plat from a registered surveyor that shows the surface location and the actual bottom hole location of the well.

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

We would move the introduction at this time of Exhibits One through Four.

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

CROSS EXAMINATION

BY MR. CATANACH:

Q Mr. Drake, the first well drilled, the discovery well, was the Humble State?

A No, the discovery well was the UPRC State 26 No. 1.

Q Did you have any type of hole deviation problems in that well?

A Yes, they did.

Q Were they as extensive as the other one?

A Deborah was just going to go into that more than I was.

MR. KELLAHIN: We have an engineering witness, Mr. Catanach, that has shown you, and I think you'll find it if you would like to look, that on Exhibit Number Five, she'll present you the actual degrees of deflection for each of those wells.

Q Okay. That westernmost fault, you say that's not a sealing fault.

A No, sir.

Q So you're going to have communication across that fault into the Devonian?

A Yes sir.

MR. CATANACH: Is your other witness also going to testify about the spacing?

MR. KELLAHIN: Yes, sir.

Q Is the Humble State No. 1 producing at this time?

A No, sir, it was drilled and completed as a dry hole.

Q Oh, it is a dry hole?

A Yes, sir.

Q But you guys want to include it in the

pool. Why is that?

A Part of that, that well -- there were some contours on the outside of that westernmost fault there; it looks like there may be an oil/water contact at about the level of the Humble well that extends westward and up in the northwest direction, wrapping back around to where that fault would be; so that we would have areas of drainage in that area above those Humble wells that we consider prospective for locations.

Q Has the Division already created the pool, do you know, through nomenclature?

MR. KELLAHIN: Yes, sir, there is a nomenclature case which establishes the Vada Devonian as a pool but there are no special pool rules for it.

MR. CATANACH: That's all I have for now.

The witness may be excused.

DEBORAH K. HAWTHORNE,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Ms. Hawthorne, would you state your name

and occupation, please?

A Deborah K. Hawthorne. I'm a petroleum engineer with Union Pacific Resources.

Q Ms. Hawthorne, have you previously testified before the Division as a petroleum engineer?

A No, I have not.

Q Would you take a moment and describe your educational background as a petroleum engineer?

A I received a BS in petroleum engineering from Texas A & M University in 1979.

I worked for Amoco Production Company right from coming out of school until 1985.

From '85 to the present I've been employed by Union Pacific Resources.

I've always worked in west Texas, New Mexico, and the Texas Panhandle area.

Q Have you been working with Mr. Drake to formulate opinions for the drilling and exploration of the Vada Devonian Pool that we've been discussing this morning?

A Yes, I have.

Q Would you summarize for Mr. Catanach what has been your personal involvement in that study?

A I came in on the -- well, after the discovery well was drilled I came in at the time of completion and designed the completion for the State 26 No. 1.

Jerry and I worked very close together on -- deciding on the drilling location for the State 26 No. 2.

I did the logging on the straight hole of the 26 No. 2, and also on the deviated hole on the 26 No. 2, and designed the completion that is in progress 26 No. 2.

Q In making your engineering studies have you formulated an opinion with regards to a recommendation on the spacing pattern to be adopted by the Division for production from this pool?

A Yes, I have.

Q And do you have recommendations to the Examiner with regards to well locations and flexibility in rules with regards to directional drilling or deviated drilling?

A Yes.

MR. KELLAHIN: We tender Ms. Hawthorne as an expert petroleum engineer.

MR. CATANACH: She is so qualified.

Q Let me ask you at this point, what is your opinion with regards to the spacing that's appropriate for production from the pool?

A I think we should start out with 80-acre spacing so that we do not have to over drill. The wells in

this area are capable of draining 80 acres.

Q Do you have a recommendation to the Examiner as to what temporary period of time should be adopted by the Division to have these rules in place before they are again reviewed by the Division?

A Two years.

Q And what do you hope to accomplish, if anything, during that 2-year temporary period?

A We believe these wells to be water drive wells, as other Devonian wells in the area. We would like to develop a production history of these wells so that we can determine for sure that they will drain an 80-acre location.

Q Have you yet determined and located the water/oil contact for this reservoir?

A No, we have not.

Q Let me direct your attention to Exhibit Number Four, which is Mr. West's survey of -- of the bottom hole location. Have you reviewed that information?

A Yes, I have.

Q And what is the bottom hole location that you're requesting the Division approve?

A Okay, the bottom hole is 2593 from the east line and 1858 from the south line.

Q Were you able to hit the bottom hole

target that was advertised within the docket showing for this case, which was 150-radius of a subsurface location 1910 from the south line and 2580 feet from the east line of Section 26?

A Yes. We were within that 150-foot radius.

Q Let me direct your attention now, Ms. Hawthorne, to what is marked as Exhibit Number Five. Would you identify that exhibit for us?

A This is just a summary that I put together of the deviation surveys from the two wells we have drilled.

On the summary sheet I used an approximate depth since our deviations were not always taken at the same depth, but this would be the nearest -- the deviation to the nearest depth, my approximate depth.

The second column is the deviation from the discovery well. the 26 No. 1.

The third column is the deviation from the 26 No. 2 straight hole.

And the final column is the deviation from the 26 No. 2 sidetrack.

Q Can you summarize for us what that deviation shows you in terms of the magnitude of deviation experienced for the drilling of wells to this pool?

A Yes, sir. As you can see from the surface down to 9500 to 10,000 feet, there is not much deviation problem at all.

Once we get past approximately 10,000 feet, the wells do begin to wander; they're trying to go up dip with the bit.

In the 26 No. 1 we had a final deviation of 7.25 degrees.

In the 26-2 Well we began deviating at about 10,500 feet. Deviation was beginning to increase and at that time we contacted the Commission on whether we needed to install a mud motor and go back to the vertical.

We did try to keep the deviation under the 5 percent, or 5 degrees, and the final deviation on that well was 3.5 degrees, but we did have to steer the well. On the sidetract we came in and kicked off at 9900 feet. The deviations listed here are the ones where we were intentionally deviating the well so that we could get above the fault.

Q Your company has requested the Examiner adopt in his order a provision creating an exception to the statewide Rule 111 on directional deviated wells.

Do you have an opinion as to whether or not that exception is necessary and reasonable for this pool?

A I do.

Q And what is that opinion?

A I believe that it is very necessary. The wells want to deviate above the 5 degrees, yet the cumulative distance deviation will not be accepted to where we will get too close to the proration line.

If we can go past the 5 degrees we will not have to steer the wells to maintain the limit that we request, the 410 feet.

Q Let me direct your attention now to Exhibit Number Six.

Would you identify for us Exhibit Number Six?

A This is a volumetric analysis that I did for several of the Devonian fields that are in the area.

As you can see on our Exhibit Number One, I've used the --

Q Take a moment and go to Exhibit Number One and orient us as to which of the pools you've conducted volumetric calculations for?

A To the southwest of our area is the Bagley Field, located approximately six miles. I also used the Caprock East. It's about 15 miles from our field.

The Moore Field, which is 12 miles.

And the Mescalero Field, which is almost

due west of ours.

I did a volumetric analysis on each of these fields based on information that I could find that was published in Geological Survey based on net heights.

I used Dwight's Information to obtain cumulative production and the purpose of this was to calculate an average recovery factor on 40 acres versus 80 acres.

Q Ms. Hawthorne, you'll have to speak up just a little louder, if you please. And what did your calculation show you for each of those pools where you've made an analysis?

A What I saw in the majority of the fields is that you would have to have an unusually high recovery factor to drain -- to obtain the amount of oil that these wells have recovered from 40 acres.

The 80-acre recovery factors were more in line with what these type of wells should have produced.

Q In which of the reservoirs you've examined exist special rules on 80-acre spacing?

A The Bagley Field is drilled on 80 acres.

Q Can you show us any of the other wells that are still on 40-acre spacing that in your opinion have been over drilled?

A The field I used the most was Moore

Field. It seems to be a similar feature as to what we have. The wells along the eastern edge produce in the 2-million barrel range. The wells further away produce in the 1-million -- further west produce in the 1-million range.

The wells across what Jerry has shown as what he believes to be a fault have produced in the 150-to-200,000 barrel range.

All these wells are profitable; however, I believe the 40-acre infills were more (not clearly understood) than the others are.

Q I direct your attention now to Exhibit Number Seven.

A Exhibit Number Seven is the production from the State 26 No. 1. If you'll go to the last page, we started production on the well in February of 1988 when we did it's initial completion. On page -- the next page forward, we did not potential the well until the middle of March. It potentialed for 3,918 barrels of oil per day. That was calculated off an 8-hour test of 1,306 barrels of oil. We ran out of tank room at that time and shut it in.

This exhibit is mainly to show the production history of the well. The well is capable of producing at an 80-acre allowable. In the end of June and beginning of July we started to see a drop in the surface

pressure. We decreased the choke size at this time and our rate is decreased. So the well is choked back is why it's not taking top allowable now.

We had a small amount of water production in the middle of July. This was causing surface pressure to drop and we would choke the well back. The first decrease brought it down to approximately 300 barrels per day. By the end of July we began to see water again and a dropping in the surface pressure. We choked it back one more time. It's currently on a 7/64ths positive choke and it's producing approximately 225 barrels of oil per day.

Q What is the current status of the completion of the deviated well?

A We are perforating that well now.

Q In your opinion as an engineer, do you believe that on a temporary basis for a 2-years period 80-acre spacing is appropriate for this reservoir?

A I do. Yes.

Q Do you have -- and do you believe that a provision in the pool rules granting an exception as you've outlined for us to Rule 111, directional drilling, is also appropriate?

A I do.

MR. KELLAHIN: Mr. Examiner, that concludes our direct examination of Ms. Hawthorne.

We move the introduction of her Exhibits Five, Six and Seven.

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

CROSS EXAMINATION

BY MR. CATANACH:

Q Ms. Hawthorne, let's go over your proposed rules again just to make sure I have them right.

You want 80-acre spacing for the pool, standard designated well locations, which would be within 150 feet of the center of the quarter quarter section line

A Yes, sir.

Q Now, the directional drilling portion of those pool rules, I'm not quite sure I have those correct.

MR. CATANACH: Mr. Kellahin, you read something that I know that I have seen.

MR. KELLAHIN: It's set forth in the application, Mr. Catanach, and should be found starting on the bottom of page 2 and continuing on page 3.

MR. CATANACH: Where was it?

MR. KELLAHIN: It's in the application that should be in the case file.

There are two separate applications filed. One is for the directional drilling but

there's also a separate application for the special pool rules.

Q How did you arrive at the figures that you arrived at, 410 feet from the center of a governmental quarter quarter section, how did you arrive at that figure?

A We think this is a distance that the well can be allowed to wander in without steering and we'll not exceed that limit without steering it.

Our Drilling Department put these numbers together.

Q So none of your previous wells have exceeded that distance?

A The only one that did was the one we intentionally deviated.

Q Ms. Hawthorne, to your knowledge has -- has -- do any of these other pools have -- have that deviation problem?

A Not to my knowledge, but I did not look into the drilling aspects of the other wells.

Q So you think it's a problem that's just based on geology?

A Yes, sir.

Q As I understand it, the acreage outlined in yellow on the Exhibit Number Two, that's acreage held by your company?

A Yes, sir.

Q What is the typical recovery factor for a reservoir such as this?

A I don't have a lot of experience in fractured reservoirs, but I believe that 70 to 90 percent is an unusually high recovery factor. I would think more in the -- 30 to 40 percent would be a more reasonable number.

Q How did you arrive at the recovery factor for the Vada Devonian Pool?

A That was mainly based on assumed reserve recovery and back calculating a recovery factor. Our wells tend to be a little tighter. I don't think we are going to have million barrel wells, and I gave it a lower reserve.

Q So you've actually calculated volumetrically the reserves underlying each proration unit for the wells?

A Yes, sir.

Q Have you done any decline curve analysis on the No. 1?

A If you will look at the production, you will see that the pressure stayed constant. The rate is relatively constant until we choked it back, and there's been no decline. All the production decline has been caused by choking the well back.

Q Do the -- your proposed rules about the deviation, does that -- does that make these wells more economical to drill?

A Yes, sir.

Q Is that a deterrent, the economics if you have to use downhole motors and all?

A I believe we will continue to drill the wells if we have to use the downhole motor but we will save money by not having to.

Q But it won't be to the point where you wouldn't drill the wells --

A No, sir.

Q Now, the No. 2 Well has not been completed yet?

A No, it has not. We're in the process of completing it now.

MR. CATANACH: Mr. Kellahin, who were the parties who were notified?

MR. KELLAHIN: Mr. Examiner, I'd like to introduce Exhibit Number Eight, which is our Certificate of Notification, and in addition to the owners which are common for the areas shown in yellow, represented by the applicant, we've also notified those interest owners that are shown on Exhibit A attached to Exhibit Number Eight.

MR. CATANACH: And who are these interest holders, Mr. Kellahin?

MR. KELLAHIN: If I might have Mr. Carter respond to that for us, Mr. Carter provided me with that information and he is probably better able than I to tell you generally where their interests lie and why they were notified.

If I might call him to the stand for a moment.

MR. CATANACH: Okay.

Were you sworn in this morning?

MR. CARTER: No, I was not.

(Mr. Carter sworn.)

JAMES R. CARTER, JR.,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Carter, would you have a seat here and would identify your name and tell us by whom you're employed and in what capacity?

A Yes, sir. My name is James R. Carter, Junior. I am employed by Union Pacific Resources Company in Houston as Regulatory Supervisor for the Houston Region Area.

Q Have you made an examination or caused to be made an examination of other interest owners in the immediate area that might be affected by your company's application today?

A Yes, sir, we have.

Q Can you identify for Mr. Catanach the reason certain parties were notified of this application and in responding I'm going to show you what is marked as Exhibit Number Eight.

In preparing that tabulation or causing that tabulation of interest owners to be prepared, Mr. Carter, how was that accomplished?

A There was a search made of the area within the vicinity of our discovery well and we attempted to identify simply producing -- producing wells. These wells, the operators from these properties do not have wells producing from the Devonian. These are operators of wells within a 1-mile radius actually of our area, which -- which was required in order to submit the discovery application and a new field designation.

Q So in addition to the actual interest

owners that are involved in the known production for the Vada Devonian Pool, which are companies that you operate for, you caused notice to be sent to all other operators within a 1-mile area even though they may not have had Vada Devonian wells.

A That's exactly right.

MR. KELLAHIN: That concludes our examination of Mr. Carter, Mr. Catanach.

CROSS EXAMINATION

BY MR. CATANACH:

Q Mr. Carter, there are only four parties that you found that operated within a mile of the pool boundary?

A Yes, sir, to the best of our knowledge. Some of the new leases are still open.

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

He may be excused.

Ms. Hawthorne, your proposed rules say that provided that the well location is not closer than 330 feet to the outer boundary of the proration unit, when it crosses the top of the Devonian --

MR. KELLAHIN: We may have confused you, Mr. Examiner, there is an amended applica-

tion. The first application was filed on June 21st. That's the one you're looking at.

The amended one is June 28th, and that shows a 450-foot distance to the outer boundary of the spacing unit.

MR. CATANACH: She may be excused.

Is there anything further in Cases 9439 and 9440?

If not, these cases 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. 9439, 9440 heard by me on August 17 19 FF.

David R. Catanach, Examiner
Oil Conservation Division

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

20 July 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of Union Pacific Resources Company for directional drilling and an unorthodox (subsurface) oil well location, Lea County, New Mexico. CASE 9440

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division: Robert G. Stovall
Attorney at Law
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico

For the Applicant:

MR. STOGNER: Call next Case Number 9440.

MR. STOVALL: Application of Union Pacific Resources Company for directional drilling and an unorthodox (subsurface) oil well location, Lea County, New Mexico.

The applicant has requested that Case No. 9440 be continued.

MR. STOGNER: Case No. 9440 will be continued to the Examiner Hearing August 17, 1988.

(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. 9440, heard by me on 30 July 1988.

Michael E. Stogner, Examiner
Oil Conservation Division

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

20 July 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of Union Pacific Resources Company for directional drilling and an unorthodox (subsurface) oil well location, Lea County, New Mexico. CASE 9440

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division: Robert G. Stovall
Attorney at Law
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State Land Office Bldg.
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For the Applicant:

MR. STOGNER: Call next Case Number 9440.

MR. STOVALL: Application of Union Pacific Resources Company for directional drilling and an unorthodox (subsurface) oil well location, Lea County, New Mexico.

The applicant has requested that Case No. 9440 be continued.

MR. STOGNER: Case No. 9440 will be continued to the Examiner Hearing August 17, 1988.

(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. 9440, heard by me on 20 July 1988.

Michael E. Stogner, Examiner
Oil Conservation Division