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

1 March 1989

EXAMINER HEARING

IN THE MATTER OF:

Application of Chevron U. S. A. Inc. for an unorthodox oil well location and a non-standard oil proration unit, Lea County, New Mexico. CASE 9613

BEFORE: Victor T. Lyon, 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 Chevron U. S. A. 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. LYON: We'll call next Case 9613.

MR. STOVALL: Application of Chevron USA, Inc., for an unorthodox oil well location and a nonstandard oil proration unit, Lea County, New Mexico.

MR. LYON: Appearances?

MR. KELLAHIN: If the Examiner please, I'm Tom Kellahin of the Santa Fe law firm of Kellahin, Kellahin & Aubrey.

I'm appearing on behalf of the applicant, Chevron USA, Inc., and I have two witnesses to be sworn.

(Witnesses sworn.)

MR. LYON: Proceed, Mr. Kellahin.

MR. KELLAHIN: Mr. Examiner, I have two witnesses to present in this case.

The first witness is a petroleum geologist. His name is Scott Evanson, E-V-A-N=S-O-N. He'll present a geologic presentation with regards to his request for an unorthodox location also in the Shipp Strawn Pool.

The second witness is Mr.

Mickey Warlick. Mr. Warlick is a petroleum engineer with Chevron USA, Inc.

SCOTT G. EVANSON,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Evanson, for the record, sir, would you please state your name and occupation?

A My name is Scott Evanson. I'm a development geologist with Chevron USA, and I reside in Hobbs, New Mexico.

Q Mr. Evanson, have you on prior occasions testified before the Oil Conservation Division?

A No, I have not.

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

A I obtained a Bachelor of Science degree in geology from the University of Kansas in 1981.

Q Subsequent to graduation, would you summarize for us your employment experience as a geologist?

A I worked for Gulf Oil in 1981 as an exploration geologist in Oklahoma City, primarily Anadarko

Basin.

And in 1983 was transferred to Kilgore, Texas, went into development geology, where I worked primarily north -- northern Louisiana.

And with the -- Chevron's purchase of Gulf Oil, I was transferred to Kilgore, Texas, and have been primarily responsible for the northern half of Lea County since mid-1986.

Q Describe for us what has been your specific efforts as a geologist to study and develop the location for what has now become known as the R. J. Holt No. 2 Well.

A We located all available well data and seismic data in the area, including some additional data that we shot, and prepared the exhibits that we'll present today.

Q Does this represent your personal choice on a well location for this well?

A Yes, it does.

Q You're the exploration geologist that's made the recommendation to your company for the drilling of this well at this location?

A Yes.

Q How long have you specifically worked on that task, Mr. Evanson?

A I'd say we've been working on this project for approximately six months.

Q When you say "we", who does that include besides yourself?

A Mickey Warlick, who is the engineer on the project.

MR. KELLAHIN: We tender Mr. Evanson as an expert petroleum engineer -- petroleum geologist. I'll get it right one of these days.

MR. LYON: Mr. Evanson's qualifications are acceptable.

Q Mr. Evanson, let me have you turn, sir, to what is marked as Exhibit Number One. Let's use this as a reference initially, if you will, please.

Identify for us what is proposed to be the 80-acre spacing and proration unit for the well.

A It will be the north half of the northwest quarter of Section 2, Township 17 South, Range 37 East.

Q And how have you identified the proposed well location within that spacing unit?

A It's identified with a red dot.

Q And what is the approximate footage location of the well from the south and east lines of that spacing unit?

A 430 feet from the east line of the spacing unit and 420 feet from the south line.

Q In making your study and in ultimately picking this proposed location for this well, as a geologist, Mr. Evanson, what did you ultimately conclude?

A We concluded that in order to penetrate the thickest portion of this Strawn mound and to drill in an area where we have most -- the greatest amount of confidence in our interpretation, we would need to drill at this unorthodox location.

Q What are the primary reasons that support that conclusion, Mr. Evanson?

A Well, first off, the history of the field out here shows that you have your best opportunity for establishing production from these Strawn mounds in the thickest portion of the mound and that's what we're trying to do here at this location.

We also would like to stay as close possible to the seismic lines. In this case we would like to drill at the tie between two seismic lines as that's where we have the greatest amount -- greatest confidence in our subsurface interpretation based on that seismic.

Q We also feel like wells out here, they have a history of drifting to the north as they're drilled and this southern, slightly southern location better accom-

modates for the drift that we anticipate while drilling the well.

We do not feel like we're -- that we are violating correlative rights, the offset leases, because we feel that the mounds that we are shooting for, our target mound is separate for surrounding mounds in the field area.

Q Let's look, sir, at the specifics of your work and the conclusions that you have reached.

I'd like to direct your attention now to your Exhibit Number Two.

Would you take a moment and identify the display for us?

A This is an isopach map of the Strawn Limestone interval. It shows the general nature of these mounds as -- as individual mounds that grow more or less randomly in a shallow sea, algal mounds. They are relatively steep sided reservoirs and the scale of this map is one inch equals 1000 feet. Contour interval is 25 feet.

Q When we look at the 80-acre spacing unit that's shaded in yellow, that in fact is not a standard 80-acre spacing unit, is it, sir?

A No, it is not.

Q Describe for us how the lots are numbered and oriented in that tract and what each lot consists of in terms of its acreage.

A Our proration unit consists of Lots 3 and 4.

Lot 3 is 41.19 acres in size and Low 4 is 41.18. That gives us a proration unit size of 82.37 acres.

Q When we look at your display Number Two, I see immediately adjacent to the red dot where you have the unorthodox location picked, just to the north and west of that dot is an open circle. What does that represent?

A That would be our closest orthodox location to our proposed location.

Q That represents a point taken from the center of Lot No. 3 and then measured out using a circle with a radius of 150 feet?

A Correct.

Q On your display you have located what appear to be seismic lines?

A That's correct. We've shown the three seismic lines that we primarily used in -- in estimating the shape of our target mound.

Q Let me have you start with Line A that runs generally north and south through the unorthodox well location and have you describe the reason for the orientation and the location of that line.

A Line A is the only one of these three

lines that is proprietary data. We shot this line shortly after the completion of the Amerind State 2 No. 1 Well directly south of our proposed -- or generally south of our proposed location.

We oriented the line in order to pass through the Amerind State 2 No. 1 Well and the Gillespie No. 2 Well to the south, and in doing so we've crossed our proration unit at an unorthodox location.

Q Describe the reason and orientation for Line B.

A Line B is a trade line that we acquired from another company. We had no control over the orientation of that line.

Q And Line C.

A Line C is a similar case.

Q Have you integrated the seismic information with the conventional geology available to determine the size and shape and thickness of the algal mound as best as you could interpret that mound?

A Yes. We -- we can recognize these mounds on the seismic as anomalies. Now, we aren't very good yet at getting down to the exact thickness on these off the seismic but we can get a handle on relative thickness and using that -- using in this instance primarily Line A, we have come to the conclusion that there is a

mound overlying our acreage -- or underlying our acreage and it is separate from the Amerind mound to the south and I think the production history of the Amerind well to the south of us will indicate that that is indeed a very small mound.

Q With the information available on this display can you draw any illustrations or examples of other instances where you can document how critical it is to the operators to be at the thickest portion of these various mounds in order to optimize their opportunity to have a commercially producing oil well?

A Yes. The mound to the southwest, it would be located primarily in the southeast quarter of Section 3, the Pennzoil Byers No. 1 Well is located in this -- in this mound. Chevron maintains a 50 percent working interest in -- in this mound that Pennzoil operates.

Now the two wells located near this -- what we have mapped as the center of this mound, are both top allowable producers. The well to the south, the TXO Penron Byers Well is slightly on the edge of the mound and is no longer able to produce the top allowable.

Q In addition there is a sidetract hole on the Byers lease. You see it, it's at a 190 foot thickness in the southwest -- I'm sorry, the southeast quarter of Section 3? Am I looking at the right information?

A The southwest --

Q This one here.

A Oh, that is not a sidetrack hole. That's just -- we explain there the northward drift that was encountered in that wellbore.

Q Well, while we're on that point, can you show us how you've indicated the northward drift of any other wells on the display?

A Yes. The two wells that we have shown the -- we have the information to show the actual bottom hole location are the TXO Penron Byers in the southeast quarter of Section 3, and the Sohio State 2 No. 1 in Unit letter A of Section 2.

Q Do you have any other illustrations on the display that shows you how important the relative thickness is of the mound in terms of finding a commercial -- a well that will produce oil on a commercial basis?

A The relative thickness --

Q Yes, sir, on -- let's see if we have any more examples of it.

You showed us that in the Pennzoil Byers mound. Are there any other of these mounds that represent that phenomena?

A Well, we do have a couple examples on this map that show that -- the separation of these mounds

and that the thickness doesn't necessarily correlate to production.

The mound on the extreme northwest portion of the map shows the Union of Texas No. 4 Well and that well could very easily be mapped in the mound with the other wells in that general vicinity.

Now, however, the No. 4 Well shows a production history that is much different than the -- even the No. 3 Well, which is located directly east of it. We feel that it must be in a satellite, small satellite mound or a different portion of the mound complex.

Q Can you illustrate for us any examples on the display that show how critical it is to you as a geologist to put a well location at the point where you have intersections of your various seismic lines?

A Yes. The Pennzoil State No. 2, State 2 No. 1 wellbore in the southwest quarter of Section 2, Chevron holds a 50 percent working interest in that well.

We -- following the completion of the Byers No. 1 Well, located due west of the State 2 No. 1, we examined our seismic data in the area, which at the time was very limited, and elected to join Pennzoil in the drilling of the State 2 No. 1.

That well was a dry hole and came in considerably -- with a considerably thinner Strawn section

than we had mapped based on our limited seismic area, limited seismic data available in the area.

With the addition of more seismic data we remapped the area and went along again with Pennzoil in their proposal to sidetrack this well, and the sidetrack was approximately 500 feet to the southwest and it went from a dry hole to a top allowable well.

Q Have you satisfied yourself as a geologist that you can reach a geologic conclusion that the portion of the pod that you've mapped in your spacing unit is going to be a separate and distinct producing pod from any of the other adjacent pods in the area?

A Yes. We feel like based on the information from Line A and collaborated (sic) by the production data that we will be separated, the target mound will be separated from the Amerind mound to the south and we also feel that we're separated from the Sohio mound which is located east of our target mound.

Q In your opinion, Mr. Evanson, do you see a need or justification to have the Commission adopt a penalty factor in conjunction with approval of this unorthodox location for this particular well?

A No, I do not.

Q Why not, sir?

A In that we feel like we are not violat-

ing the correlative rights of the offset leaseholders due to the separation of the mounds and also, back on the first exhibit we showed, there are been numerous unorthodox locations granted in this portion of the Shipp Strawn Field and none of which have been penalized.

MR. KELLAHIN: That concludes my examination of Mr. Evanson on his geologic presentation and we move the introduction of Exhibits One and Two.

MR. LYON: Is there objection? Exhibits One and Two will be admitted.

CROSS EXAMINATION

BY MR. LYON:

Q Mr. Evanson, you have on your Exhibit Two two intersections of seis lines.

A That's correct.

Q You have one intersection with your proprietary line and then you have one from Line C, which -- did you say that that was information that you purchased or was that a group shoot?

A Line C we traded.

Q Right, you told us that. Do you feel that -- that the information you gained from -- from Lines C and B are comparable reliability --

A Yes.

Q -- as the one on Line A?

A Yes.

Q The crossing of Lines B and C is at a more centralized location for your proration unit and it appears that the thickness based on your isopach is greater than 225 feet, and I suppose this small closure that you have your proposed well located on, on that contour, is 250 feet.

A Yes.

Q And your interpretation shows that a location 200 feet or 150 feet to the -- to the west of that would be at a comparable thickness.

A That is interpreted that way, that's correct. That is, we do not have any data to show us how exactly large this 250-foot contour is, other than at the -- where the seismic lines cross it.

Q It's just a matter that -- that geologists, geophysicists lose confidence when they move away from the actual (unclear) line.

A That is true.

MR. LYON: I believe that's all I have.

MR. KELLAHIN; Follow-up question, Mr. Examiner.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q What is -- what is your opinion of the thickness at the intersection of Lines C and B through the spacing unit?

A It is less than the thickness at the intersection of Lines A and C.

Q Can you quantify more specifically what the range is of difference between the thickness at each of those locations?

A We made a stab at it here on our isopach map. As I've stated before, we're not real comfortable with our estimating thicknesses from the seismic but we feel like it would be in the order of 25 to 25 feet plus thinner than the proposed location.

Q Have you and the geophysicist carefully examined the data available at the intersection of both of those points, the unorthodox location and the more standard location?

A Yes, we have.

Q Those have all been carefully evaluated and examined and that information studied by you?

A Yes.

Q Which of the two gives you the greatest opportunity to maximize the thickness of the reservoir and

therefore obtain a commercial well?

A The line intersection that is at our proposed location. We, that is the steep edge of the mound there. The mound gradually thins to the north and where exactly the edge of this thing is, is interpretive.

Q If you were required to drill at a location that's more standard, where, for example, Line C and B intersect, and now plug in the known factor that these wellbores generally drift to the north, where will that place you in terms of the thickness if that well is drilled at that location?

A That will place us out on the thinner edge of the target mound and we feel at a much riskier location than the location we have proposed.

MR. KELLAHIN: No further questions.

MR. LYON: I have nothing further.

Mr. Evanson may be excused.

MICKEY WARLICK

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Warlick, for the record, sir, would you please state your name and occupation?

A I'm Mickey Warlick. I'm a petroleum engineer, reservoir engineer, for Chevron Oil Company.

Q Mr. Warlick, on prior occasions have you testified before the Oil Conservation Division?

A No, I have not.

Q You have worked on prior occasions in preparation of testimony and exhibits and displays but you have never physically testified yourself?

A That's correct, sir.

Q Would you take a moment and describe for us what has been your education background?

A Yes. I went to the New Mexico Institute of Mining Technology; graduated with a BS degree in petroleum engineering in '81.

I then went to work for Gulf Oil Corporation which later merged with Chevron. I've been in Hobbs, New Mexico, all this time looking at reservoirs in all of New Mexico and west Texas.

Q Describe generally what you and Mr. Evanson have done in examining the Shipp Strawn Pool and trying to find a well location and a proration and spacing

unit for Chevron to drill a well in this pool.

A We studied all the geological and production history for the wells in the immediate area and have come to the conclusion that we need to have a well at the unorthodox location.

Q In reaching the conclusions of your engineering study, Mr. Warlick, what did you ultimately conclude about the unorthodox location?

A That Chevron needs to have the unorthodox location to be able to penetrate the mound at its thickest location to have the best well and best location in the reservoir.

Q Did you also make a study to determine whether or not in your opinion as an engineer the mound to be penetrated for the J. R. Hold No. 2 Well was going to be a mound that was separate and distinct from any other producing mounds in the vicinity?

A That's correct. Based on the production history and it backs up the geological evidence that we have that they are indeed separate and distinct mounds.

Q Let me have you commence, Mr. Warlick, you have prepared for discussion a Strawn production map. You also have prepared and we will discuss what is shown to be a decline map, and then you have also prepared and we will discuss what you've identified as a productive acres

map?

A That's correct.

Q And does all those maps and the conclusions derived from that study represent your own personal opinions and conclusions?

A Yes, it does.

MR. KELLAHIN: At this time, Mr. Examiner, we tender Mr. Warlick as an expert petroleum engineer.

MR. LYON: Mr. Warlick, are you a registered professional engineer?

A No, sir, I am not.

MR. LYON; Mr. Warlick is qualified.

Q Let me have you take the production map which we've marked as Chevron Exhibit Number Three and before you draw any conclusions from that work, would you simply identify the display and show us how to read the information on the display?

A Okay. This is simply a production map for the area which shows for each individual well, producing well it has the date that it was brought on line, the initial production rate for each well, the current rate, and then the cumulative produced through November of '88.

Q In making your engineering study in con-

junction with the geologist, what have you determined to be the productive characteristics or reservoir characteristics of this particular reservoir?

What type of drive mechanism do you have occurring in this reservoir?

A Okay. I've determined that all of these wells out here produce from a solution gas drive mechanism with varying degrees of water influence, being slight to (unclear).

Q In examining the production have you found a relationship between the thickness of the algal mound penetrated in the well and its productivity?

A Yes, sir.

Q What is that relationship?

A I've found that the probability of obtaining the best well comes from hitting the thickest part in the reservoir. When you hit the thickest part you have the gross interval, the have the thickest net pay, the greater porosity and the greater permeability in the reservoir. It results in a better well both initially and for the ultimate recovery for the well.

Q How have you gone about satisfying yourself as an engineer that the J. R. Holt No. 2 mound is going to be separate and distinct from of the other mounds being produced in the vicinity?

A That is on the declines from the production history of the wells in the area.

Q And that is shown on Exhibit Number Four?

A That's correct.

Q All right, sir, let's turn to that exhibit.

This represents Mr. Evanson's basic geologic display that he presented earlier to the Examiner?

A That's correct.

Q And then on that display you've made some additional -- you've added some additional information.

A Right, I've added the declines for each well from the initial production rate of the well through current date.

Q All right, what do you conclude from having done that study and made that -- those calculations?

A Okay. In looking at all the mounds throughout this region, that they are separate and distinct; that -- that -- again we covered the drive mechanisms, the solution gas drive with varying amounts of water, and that in the westernmost mound that has the five wells in it --

Q Let's see, that's the one in the south-

ern portion of 34 and in the northwest of 3?

A That's correct.

And the well that is in the Unit N of 34, --

Q Yes, sir.

A -- the Shipp 34, 4, I concluded that that is in a separate mound, satellite mound of this larger mound.

Q What caused you to reach that conclusion?

A The production came on very well but as depicted there, it was at a 99 percent rate and it fell off to nothing. They have stopped production there. The gas production in that well had an increasing gas/oil ratio throughout the life, down toward the end, and it fell off, too, which is characteristic of a solution gas drive reservoir.

The main color of the reservoir has -- as in the well that is in Unit D of that mound, of 3, D of 3, the Pennzoil Myers No. 1, it came on, was top allowable for 445 barrels a day for 19 months, we started off with a 72 percent decline. It's a -- the difference in between these two wells depicts that the well in 34, Section 34, the Shipp 34 No. 4, is in a separate mound.

Q All right, let's separate out the Penn-

zoil Shipp mound from the Amerind mound in the southeast of the northwest of 2. Can you separate that, the Amerind mound just to the south of you?

A Yes.

Q All right, can you separate that from the Pennzoil Shipp mound to the west?

A Yes, sir.

Q And what causes you to believe there's a separation?

A Because it has the same characteristics as the Shipp 34 No. 4 Well. This well came on at top allowable; also had a 900 percent decline and it has the same producing characteristics as the 34, 4.

Q Is there any doubt in your mind that the Amerind mound just to the south of your location is separate and distinct from the Pennzoil Byers mound in the southeast of 3?

A It is -- it is totally separate from those reservoirs.

Q And you got confirmation from that with the Chevron No. 1 Well that missed the -- missed the mound, didn't it?

A That's right.

Q Okay. Now how do we separate ourselves as -- from -- from the Sohio well in the northeast of the

A I went -- I have planimetered the productive acreage of this map to each proration unit and you will see a percent productive acres associated to the unit and then the resultant acres underneath it for each well.

Q Why have you done that?

A To indicated that for the wells that are depicted in blue the unorthodox -- the other unorthodox locations in this well -- in this -- in this area, that they have significantly lower net productive acreage than our proposal and therefore we should not have a penalty against that well.

Q Let's look at the specific mound that surrounds the J. R. Holt No. 2 Well location. In making y your volumetric calculation, did you have to make an assumption about the extent of the reservoir that would contribute production to that well? You had to have a cut-off for your --

A Yes.

Q -- calculation, did you not?

A That's correct, and for most --

Q What did you use?

A For most of these wells, just for the net productive acres here I used 175 feet from the end of the reservoir. As depicted by geology these are steep sided and we do not know exactly the total limits of the

northwest of 2 from the Amerind mound?

A Okay. The wells in the north to the Sohio 2 No. 1, which is in A of 2, and also the well that is in P of 35, both those wells are in one particular mound. This mound has water production associated with it. The number -- the well that is in P of 35 has a water/oil ratio of approximately 1. The well that is in A of 2 has a water/oil ratio of approximately about half.

This is very distinct production to this mound. None of the other mounds have this kind of characteristic, plus they are on a -- due to the water, they are on a heavier decline even thought they're in a thicker part of the reservoir.

Q Have you made a further engineering study to determine whether or not you could reach a conclusion that separated the Amerind mound to the south of you from the mound that you'll penetrate with the J. R. Holt No. 2 Well?

A Yes. By the characteristic of -- that it has already fallen off and that based on the volumetrics that I can put towards this well, that it has drained well within the acreage depicted on this map.

Q Let's turn to Exhibit Number Five, Mr. Warlick. Again we have Mr. Evanson's base map. Now what have you added to this map, to his base map?

field; however, using it as a comparable value from mound to mound I felt pretty confident, comfortable with it.

Q And with that assumption, then, in the calculation, what did you determine to be the productive acres within the spacing unit proposed for the J. R. Holt No. 2 Well?

A That we had 80 percent of our proration unit which should be productive, or 64 acres.

Q And when we look at he display, then, for those unorthodox locations that have resulted in producing wells --

A Right.

Q -- you have next to each of the blue squares put the same type of information.

A That's correct.

Q So when we look at the southwest quarter of 3, that Pennzoil Simmons Well --

A Yes, sir.

Q -- out of the 80 acres dedicated to that well you have calculate 38 productive acres?

A That's correct.

Q Using the same assumptions you made for the J. R. Holt No. 2 pod.

A That's correct.

Q And in examining the approval orders for

each of those wells did you find any of them in which the wells were penalized either with regards to their unorthodox locations or to the fact that they might have less than 80 productive acres assigned to it?

A No, sir.

Q When we look to the Amerind pod just to the south of your location, how many acres do you anticipate are being developed and drained by that well? I'm talking about surface acres.

A How many surface acres do I intend to be drained from that location?

Q Right.

A None from our well.

Q Why not?

A This well -- this well has produced its maximum amount to date.

Q The Amerind Well itself has developed how many acres?

A I show here that the net productive acres would be 30 but according to calculations it should be that has a bearing on only about 5.3 acres.

Q What type of calculation did you make to reach that conclusion?

A It was a volumetric calculation.

Q And what caused you then to conclude

volumetrically that this well was draining only 5 acres? What are the parameters that go into the calculation that resulted in that conclusion?

A Okay. Net footage for the well that we got off the logs, the porosity and water saturation, formation volume factor.

Q The greatest parameter of influence in that calculation is the 222 feet of thickness, is it not?

A In that particular calculation we did not use the 222 feet. This is a gross pay map; we used a net pay thickness.

Q Ah, all right, that's what I'm trying to ask you. What was the net pay number that you used? Do you recall the net pay number in the calculation?

A I do not recall but it would be in the order of about 70 feet.

MR. LYON: What did you say?

MR. KELLAHIN: 70 feet.

MR. LYON: 70?

MR. KELLAHIN: Yeah, it was in the range of 70 feet in the calculation.

Q From an engineering perspective, Mr. Warlick, do you see any opportunity to have any of the offsetting interest owners' correlative rights violated by approval of this application without a penalty?

A No, I do not. I don't see that -- their correlative rights will be protected.

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

We would move the introduction of his Exhibits Three, Four and Five.

MR. LYON: Is there objection?

Exhibits Three, Four and Five will be admitted.

CROSS EXAMINATION

BY MR. LYON:

Q Mr. Warlick, on Exhibit Four you show some percentages by these wells and I -- I failed to -- the zero percent, for instance, looking at the Union Texas lease up there in 34 at the upper left part of your exhibit, zero percent indicates zero decline?

A That's correct.

Q Zero percent decline for four months, and then the 37 percent is -- that's 37 percent decline --

A That's correct.

Q -- rate for 9 months, and then it went to a 21 percent decline?

A That's correct.

Q And that's annual, I presume.

A Yes, these are annual rates.

Q So that the 99 percent shown on the Union Texas No. 4 Well indicates that it was said to be depleted in one year.

A In actually less than one year due to its decline.

Q And on Exhibit Five the percent that you show is the percentage of the assigned proration unit that is productive.

A That's correct.

Q And you have not shown on any of your exhibits the -- your calculation or estimation of net pay on any well, is that correct?

A For net pay on any well, no, sir, I have not.

Q The only thicknesses you have are the thicknesses that Mr. Evanson had used in his maps.

A That's correct, for the gross Strawn thickness.

MR. LYON: That's all of my questions.

MR. KELLAHIN: Mr. Examiner, to complete our presentation, we have marked as Exhibit Number Six a package of correspondence that shows various waivers executed by parties adjacent to the spacing unit.

In addition Exhibit Number Seven represents copies of the return receipt cards showing attached to the certificate in which I have certified that within 20 -- at least 20 days prior to the hearing date we sent a copy of the application and notification of hearing in this matter to all of the offsetting interest owners.

I would like to submit both of those, Exhibit Six and Seven, for introduction.

MR. LYON: Is there objection?

Exhibits Six and Seven will be admitted. Anything further, Mr. Kellahin?

MR. KELLAHIN: No, sir.

MR. LYON: Any other -- anything else to go into the record?

If not, Mr. Warlick may be excused and we'll take the case 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. 9613, heard by me on March 1 1989.

W. J. Lyon, Examiner
Oil Conservation Division