STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:	)	CASE NO. 11,992
APPLICATION OF PENWELL ENERGY, INC., FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO	)	ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

June 25th, 1998

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, June 25th, 1998, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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I N D E X

June 25th, 1998
Examiner Hearing
CASE NO. 11,992

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E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	7	11
Exhibit 2	8	11
Exhibit 3	9, 44	11
Exhibit 4	10	11
Exhibit 5	16	30
Exhibit 6	19	30
Exhibit 7	23	30
Exhibit 8	27	30

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A P P E A R A N C E S

FOR THE DIVISION:

RAND L. CARROLL
Attorney at Law
Legal Counsel to the Division
2040 South Pacheco
Santa Fe, New Mexico 87505

FOR THE APPLICANT:

CAMPBELL, CARR, BERGE and SHERIDAN P.A.
Suite 1 - 110 N. Guadalupe
P.O. Box 2208
Santa Fe, New Mexico 87504-2208
By: PAUL R. OWEN

FOR CANADIAN KENWOOD COMPANY:

JAMES G. BRUCE, Attorney at Law
612 Old Santa Fe Trail, Suite B
Santa Fe, New Mexico 87501
P.O. Box 1056
Santa Fe, New Mexico 87504

* * *

WHEREUPON, the following proceedings were had at 8:23 a.m.:

EXAMINER CATANACH: All right, at this time we'll call Case 11,992.

MR. CARROLL: Application of Penwell Energy, Inc., for compulsory pooling, Eddy County, New Mexico.

EXAMINER CATANACH: Call for appearances in this case.

MR. OWEN: Paul Owen of the Santa Fe law firm Campbell, Carr, Berge and Sheridan, for the Applicant, Penwell Energy, Inc. I have three witnesses in this case.

MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, representing Canadian Kenwood Company. I have no witnesses.

EXAMINER CATANACH: Okay. Will the three witnesses please stand to be sworn in at this time?

(Thereupon, the witnesses were sworn.)

MR. OWEN: Mr. Examiner, I call my first witness, Mark Wheeler.

MARK WHEELER,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. OWEN:

Q. Mr. Wheeler, please tell us your name and where

you live.

A. Mark Wheeler, Midland, Texas.

Q. And by whom are you employed?

A. Penwell Energy, Incorporated.

Q. What do you do for Penwell?

A. I'm land manager.

Q. Have you previously testified before this Division?

A. Yes, I have.

Q. When you previously testified, were your credentials as a petroleum landman accepted and made a matter of record?

A. Yes, they were.

Q. Are you familiar with the Application filed in this case on behalf of Penwell?

A. Yes, I am.

Q. Are you familiar with the status of the lands in the subject area?

A. Yes.

MR. OWEN: Mr. Examiner, are the witness's qualifications acceptable?

EXAMINER CATANACH: They are.

Q. (By Mr. Owen) Mr. Wheeler, why don't you tell us what Penwell seeks with this Application?

A. Penwell seeks an order pooling all minerals from

the surface to the base of the Wolfcamp formation underlying the southeast quarter, southwest quarter of Section 19, Township 18 South, Range 31 East, Eddy County, New Mexico, forming a standard 40-acre oil spacing and proration unit.

Q. Which well are you going to dedicate this acreage to?

A. Penwell's West Shugart 19 Federal Number 1 well, which is to be drilled at a standard location 1980 feet from the west line and 660 feet from the south line of said Section 19.

Q. All right, Mr. Wheeler, let's go ahead and take a look at Penwell Exhibit Number 1. The sticker is on the back of the exhibit there. Why don't you review this exhibit for the Examiner?

A. This is an ownership map of the area, enlarged to show the 40-acre proration unit, which we seek the order for in the southeast quarter, southwest quarter of Section 19, showing the well location, showing the ownership in the area, and also outlined in diamond shapes to the south in Section 33, wells that Penwell has drilled in Section 30.

Q. Are those also Wolfcamp wells?

A. Two of the wells -- The two in the west half are Wolfcamp, the well in the east half is a Morrow producer.

Q. Okay. What is the primary objective of the

proposed well in this case?

A. A 10,300-foot Wolfcamp producer.

Q. Is the Wolfcamp the primary objective in this --

A. Yes, it is.

Q. Okay. Let's go ahead and turn to the ownership breakdown requested on Exhibit Number 2. Would you please review that exhibit for the Examiner?

A. This shows the working interest ownership of the southeast southwest of Section 19, as to right below 3900 feet subsurface. Penwell and partners have 27 percent of this 40 acres, and Canadian Kenwood company owns the remaining 73 percent.

Q. Does Penwell have 27 percent by itself?

A. No, we have two other working interest owners with us.

Q. Is 27 percent the total amount -- percentage of ownership that you have voluntarily committed to the well?

A. Yes, it is.

Q. All right. Are you going to call an engineering witness to review the AFE charges for the proposal?

A. Yes, I will, Mr. Bill Pierce.

Q. Okay. Why don't we turn to -- Well, why don't you just briefly summarize the efforts made by Penwell to obtain a voluntary joinder?

A. We forwarded an AFE on April the 9th to Tina Hall

at Canadian Kenwood Company. We've heard nothing from Canadian Kenwood for approximately -- close to two months. It was toward the end of May, the first part of June, that I gave Mrs. Hall a call and asked what they were going to do on the well.

She said they were not wanting to participate and would possibly consider farming out, but the farmout terms that they presented to us were too onerous for us to consider.

Q. And is Exhibit Number 4 [*sic*] a copy of the letter that you sent to Ms. Hall with the copy of the actual AFE that you sent to her attached?

A. Yes, it is.

Q. Okay. And Mr. Pierce is going to review the charges on that AFE for us?

A. Yes, he will.

Q. All right. Mr. Wheeler, in your opinion has Penwell made a good-faith effort to locate and obtain the voluntary joinder of all interest owners in the proposed spacing unit?

A. Yes.

Q. All right. Have you made an estimate of the overhead and administrative costs to be incurred while drilling and operating the well?

A. Yes, we have. For a drilling well $6562 per

month, and for a producing well $659 per month.

Q. How did you arrive at these figures?

A. We used the Ernst and Young 1995 survey and adjusted according to the percentages that have been handed out by Ernst and Young since the 1995 publishing.

Q. Have those been updated through 1998?

A. Yes, they have.

Q. Okay. Are these costs in line with what is being charged by other operators in the area?

A. Yes, they are.

Q. Do you recommend that these figures be incorporated into the order --

A. Yes.

Q. -- which results from this hearing?

A. Yes.

Q. All right. Let's look at Penwell Exhibit Number 4. Is that exhibit an affidavit with an attached letter confirming that notice of this Application and the hearing has been provided in accordance with OCD rules?

A. Yes, it is.

Q. Is Penwell also going to call a technical witness to testify about the risk associated with this well?

A. Yes, sir, Mr. John Thoma.

Q. All right, Mr. Wheeler, were Penwell Exhibits Numbers 1 through 4 prepared by you or compiled under your

direction?

A. Yes, they were.

Q. And finally, do you have any deadlines on the drilling of this well?

A. Yes, we're required under the farmout that we have, term assignment that we have on the 27 percent, to spud this well on or before August 30th of this year.

Q. Do you request that the order in this case be expedited?

A. Yes, we do.

Q. Be placed ahead of all the other cases on the docket this morning?

A. That would be great.

MR. OWEN: Okay. All right, Mr. Wheeler.

Mr. Examiner, I offer Exhibits Numbers 1 through 4.

EXAMINER CATANACH: Exhibits 1 through 4 will be admitted as evidence.

MR. OWEN: That's all that I have for this witness at this time.

EXAMINER CATANACH: Mr. Bruce?

EXAMINATION

BY MR. BRUCE:

Q. Mr. Wheeler, is Exhibit 3 the only letter you sent to Canadian Kenwood Company?

A. Yes, it is.

Q. And how many times did you call Canadian Kenwood?

A. I believe we had two conversations after -- I called her first. It may have been three. She called me back, and I may have called her back a third time, but...

Q. Did you ever send a JOA to Canadian Kenwood?

A. No, we did not.

Q. Now, you said -- did they -- Did Canadian Kenwood verbally propose farmout terms to you?

A. She said that they would consider selling a term assignment or potentially a farmout to us, but -- The terms that we had bought down in Section 30, on the acreage that we've drilled in the west half of Section 30, we had bought a term assignment from them previously, and this time they were wanting significantly higher terms and significantly lower net revenues for us, and we felt like the terms were too onerous, given the results that we've had out there.

Q. So you did get a farmout from them, on what acreage in Section 30 --

A. We had a term assignment from them on the west half of -- I'm sorry, the southwest quarter of Section 30. They don't have an interest in the northwest, just the southwest.

Q. And you never countered their proposal --

A. We --

Q. -- on Section 19?

A. We talked about it on the phone a little bit, and I told Ms. Hall that we would perhaps be interested in a similar term assignment that we did in Section 30. She said they would not be interested in doing that. So we never were able to reach an agreement as far as any kind of terms.

Q. Now, Canadian Kenwood has 73 percent of this well, correct?

A. Yes, sir.

Q. And Penwell is willing to -- If Canadian Kenwood does not join in this well, Penwell and its partners will pay that 73 percent of the well costs?

A. Yes, sir.

MR. BRUCE: Okay. That's all I have, Mr. Examiner.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Wheeler, you've already reached an agreement with two other working interest owners?

A. Well, they are our partners in the prospect. They've drilled the other three wells with us. They're not like Canadian Kenwood; they don't have an outside ownership. They've participated with us in all of the wells, and they are committed to drilling this well with

us.

EXAMINER CATANACH: Okay.

MR. CARROLL: Who is that?

THE WITNESS: McNick Oil and Gas, which is a subsidiary of MCN Corporation, who is our funding partner, and S and P Company out of Shreveport, Louisiana.

Q. (By Examiner Catanach) You don't anticipate being able to reach a voluntary agreement with Canadian Kenwood?

A. Not at this time. The farmout and term-assignment terms that have been discussed have been too onerous, in our opinion, to pursue, and they are not willing -- or according to conversations I've had, they are not willing to participate with their interest. So I don't anticipate being able to reach voluntary agreement.

EXAMINER CATANACH: Okay, I have nothing further.

FURTHER EXAMINATION

BY MR. OWEN:

Q. Mr. Wheeler, did you receive a written farmout proposal from Canadian Kenwood?

A. No, I did not.

Q. Okay. Do you anticipate receiving signed AFEs from your partners in this well?

A. Yes.

MR. OWEN: Okay. I have nothing further for this

witness and ask that he be excused, Mr. Examiner.

EXAMINER CATANACH: Okay.

MR. OWEN: At this time I'd like to call John Thoma.

JOHN THOMA,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. OWEN:

Q. Mr. Thoma, why don't you tell us your name and spell your last name for the record?

A. John Thoma, T-h-o-m-a.

Q. And where do you live?

A. Midland, Texas.

Q. And where do you work?

A. Penwell Energy.

Q. What do you do for Penwell?

A. I'm a -- the geological manager.

Q. How long have you been with Penwell?

A. Approximately two and a half years.

Q. Have you previously testified before this Division?

A. Yes, I have.

Q. At that time were your credentials as a petroleum geologist accepted and made a matter of record?

A. Yes, they were.

Q. Are you familiar with the Application filed in this case on behalf of Penwell?

A. Yes.

Q. Have you made a geologic study of the area surrounding the proposed well?

A. Yes, I have.

Q. Are you prepared to share the results of that study with the Examiner?

A. Yes.

MR. OWEN: Mr. Examiner, are the witness's qualifications acceptable?

EXAMINER CATANACH: Mr. Thoma is so qualified.

Q. (By Mr. Owen) Mr. Thoma, have you prepared any exhibits for presentation in this case?

A. Yes, four exhibits.

Q. Okay.

A. Actually five.

Q. I think your first exhibit is a Wolfcamp structure map, Exhibit Number 5, with the exhibit sticker again on the back. Would you review that exhibit for the Examiner, please?

A. Yeah, Exhibit Number 5 is a structure map drawn on the top of the Wolfcamp formation.

Shown in yellow with the blue diamond is the

proposed proration unit and location for the subject well of this hearing.

The wells that Penwell has drilled to date in this area are shown with the green circles just south of the proposed location in Sections 30 and 29 of 18 South, 31 East.

The two wells in the west half, as Mr. Wheeler indicated, are Wolfcamp producers. The first well was drilled in the southeast of the northwest quarter. That was drilled to the Morrow. The Morrow was not commercial, and we plugged back to the Wolfcamp and are currently producing the Wolfcamp.

The well in the northeast of the southwest quarter was drilled to the Wolfcamp and completed in the Wolfcamp and is currently producing there.

The well in the southeast of the northeast quarter was drilled to the Morrow formation, is completed and producing from that zone. The Wolfcamp is potentially behind pipe in that well.

The well in the northeast of the southwest of Section 29 was drilled to the Morrow formation. The Morrow was nonproductive. We tested the Wolfcamp in that well; it was also noncommercial. And we are currently production-testing in the Bone Spring section in that well.

The two arrows or red lines that you see

traversing the map from the north to the south across Section 30 and the west half of 29 are two -- the two directions of deposition in the lower Wolfcamp formation.

The contour interval on this map is 100 feet and shows dip from the north to the south, with a fairly substantial syncline drawing up through the proposed location and the productive locations in Sections 19 and 30, respectively.

Q. Based on that geologic study, is it your opinion that structure is important in determining whether or not you're going to make a productive well in this location?

A. It's not critical in terms of water production, as the two wells we have in Section 30 produce no water currently from the Wolfcamp. So we have not encountered a water leg in the Wolfcamp from the producing zones in Section 30.

I'll show a cross-section in a moment that includes the well in 29. The well in 29 does not have the same zones present that are producing in Section 30. It had an upper Wolfcamp carbonate zone in it that was wet. It was largely wet. And possibly development off of that well would require getting upstructure.

But as you'll see in the subsequent exhibits, that particular reservoir is not prospective at the proposed location.

The relevance of this structure map, in my interpretation, is that I believe the syncline that you're seeing, drawing up through Section 30 and 19, focused the deposition of the reservoirs in that area. It provided a pathway for deposition.

These are -- The reservoirs, productive reservoirs, that is, are basinal slope carbonate turbidite deposits, and as such they're going to be seeking the path of -- well, the deepest paths into the basin. The lowest areas, they'll be preferentially deposited in those areas.

And so the low that we see illustrated by this map, to me, is in part what I'm using to orient and project the geometry of the reservoir that we're chasing.

Q. All right, let's go ahead and go to the cross-section that you're referring to, which is marked as Penwell Exhibit Number 6. You've got these others -- producing Wolfcamp wells in the area. Are those wells reflected on this cross-section?

A. Right, the exhibit -- Yeah, Exhibit 6, cross-section C-C', is a structural cross-section through each of our wells. It starts off in the southwest quarter of Section 30, in the 30 Federal Number 9 well, runs one location, one 40-acre proration unit, north into the 30 Federal Number 1, from there turns east into the 30 Federal Number 10, and from there southeast into the 29 Federal

Number 1.

And there are several points of illustration on this cross-section.

One, the structure map is drawn on the top of the Wolfcamp formation, as noted with the brown shading at the top of the cross-section.

The cross-section is a structural cross-section hung on a datum of 6000 feet.

It also depicts, further down into the Wolfcamp, the various reservoir sections as I've correlated them through these wells.

There are five different reservoir sections in the Wolfcamp, starting at the base with the 'AF' carbonate. That is the zone which is productive in the Number 9 and in the 30 Federal Number 1 well.

The 'AE' carbonate is not productive in the area as yet. There's clean carbonate that's been deposited, but no true reservoir has been developed within that section.

The 'AC' is very similar to the 'AE'. It's a separate depositional unit, but to date no production has been established from it.

You'll notice on the 29 Federal Number 1, we did perforate that section and test it, along with the zone above it, the 'AB'. The 'AB', we have had shows in both the 30 Federal Number 10 and the 29 Federal Number 1.

We tested both the 'AB' and the 'AC' in the 29 Federal Number 1. You'll notice at the bottom of the cross-section the results of that testing are listed where it says "perfed Wolfcamp" down at the bottom. We swabbed the well for ten days after treating it and recovered a total of 46 barrels of oil and 500 barrels of water over load, which was noncommercial.

We set a cast-iron bridge plug, which is shown in the wellbore, just above that upper Wolfcamp detrital zone which is colored purple, and we've come up to the Bone Spring, as I indicated.

That zone has not been tested in the 30 Federal Number 10, however the 30 Federal Number 10 is only about 15 feet high to the 29 Number 1 in that section, and so we're -- I'm not really sure at this point whether or not that's going to be a viable reservoir in the area or not, from a oil-production standpoint. Certainly it appears to have reservoir quality, but whether or not it's trapping effectively in the area has yet to be determined.

Backing up to the 30 Federal Number 1, you see the perforations down in the 'AF' zone. That well was completed, looking toward the bottom of the section, in March of 1997. And that well has cumulatively produced to date 26,000 barrels, just in excess of 26,000 barrels of oil and 62 million cubic feet of gas. And you can see very

little water, 912 barrels.

The well IP'd for approximately 400 barrels -- I'm sorry, about 200 -- 300 barrels of oil a day, three barrels of water and 900 MCF per day. MMCF, I'm sorry, MMCF per day.

That well is currently producing at a rate of about 22 barrels a day. It's experiencing very significant production decline. Gas is approximately 50 to 100 MCF per day, and there is no water.

Moving upsection in that wellbore, we did drill stem test the upper Wolfcamp detrital section, which is colored purple, and recovered predominantly water with a show of gas. That zone does not appear to be commercially prospective in the area.

Moving over into the 30 Federal Number 9, again we're completed in that basal 'AF' carbonate. The well was completed in July of 1997 from that interval with an IP of 80 barrels of oil per day, 170 MCF gas, no water. It's cumulatively produced to date 12,164 barrels of oil, 117 million cubic feet of gas and 130 barrels of water. That well is currently producing about 33 barrels of oil a day and about the same gas as the Number 1, approximately 50 to 100 MCF per day.

Q. All right, which -- In your proposed well, which zones are you anticipating?

A. The primary objective of the proposed location is the 'AF' carbonate.

Q. Do you feel like you've got a pretty good handle on the Wolfcamp zones in the area?

A. To this point, not really. I've got two additional exhibits, which I'd like to get into.

Q. Well, let's go ahead and do that. Why don't we turn to Penwell Exhibit Number 7?

A. Exhibit Number 7 is an isopach map of the 'AF' carbonate, and I'm using a 40 API cutoff, gamma-ray cutoff for the isopach, and a porosity cutoff as well. I believe it's eight percent porosity. The porosity is shown as the number on the left, the API cutoff is the number shown on the right associated with each well.

You can see right now we've got basically two wells in the area that have penetrated reservoir section in this particular interval, those being the 30 Federal Number 9 and the 30 Federal Number 1.

The proposed location, we anticipate, will be structurally high and a little bit thicker, possibly, than the two wells we've drilled to date. And we are anticipating that if we can pick up a thicker section, that the production will be improved by the thicker reservoir.

But there really is no documentation evidencing thickening to the north at this point. That is, it's

really a wildcat location, a wildcat stepout.

If the two wells to the south, particularly the Number 1, had held up a little bit more strongly over the long haul, we'd certainly feel stronger about the 'AF' being a viable, a highly viable, development objective in this area.

But since those wells have declined fairly rapidly, what I believe is probably happening is that these reservoirs are somewhat lenticular. And while I'm correlating these zones as being continuous, they may, in fact, be much less continuous than I'm illustrating with this series of maps.

And the only way we're going that out is to continue drilling. And that's why I believe the well has wildcat-type risk to it, because the rapid declines on the first two wells indicates that the reservoir probably isn't as big as I'm showing it to be.

But given the nature of the reservoirs in this lower Wolfcamp section, it's entirely possible that as we move around this area if we are in a depositional -- a depocenter for carbonate detritis coming off the shelf, that we could stumble into either another lens that is pressure -- separated pressurewise and reservoirwise from the existing zones, or we could stumble into new reservoirs that haven't been defined in the area. But that's where

the risk lies.

I think the analog to this area is South Corbin Field, which is located about two townships east of here, and it's a fairly large field. But in studying that field, there is significant development risk in moving from one location to the other in that field -- to another, on 40- or 80-acre spacing.

The field was originally developed on 80-acre spacing, and since has had some 40-acre-type offsets drilled in it. I say "type" because I think the spacing is still 80 acres, but by nature of the Commission rules on that, it really only allows direct 40-acre locations to be drilled.

But the continuity of reservoirs and the overall distribution of reserves in that field is highly erratic from one location to another.

And so while it's a fairly high risk development play, the Wolfcamp detritals in that field, overall, statistically, if you drill a fairly large number of wells, like four or five at a time, you statistically find economic reserves. And I believe that's what has to be done in this area to make it economic.

The problem with that is that each well bears a significant amount of risk. We really haven't gotten to the point where we've drilled enough wells in this area to

demonstrate that we do, in fact, have the same kind of conditions.

Right now we're projecting to our investors, hence my management, that we have an analogous setting. But we still haven't gotten there yet, because we've got two uneconomic wells.

The two wells we drilled to date really aren't -- neither one of them has reached payout yet, and we're six months, almost a year, into the production on one of the wells. And so the economics, particularly in this market, are somewhat marginal at best.

Q. If oil prices increase, will that increase the economic viability of the prospect?

A. Certainly?

Q. Will that eliminate the risk from this well?

A. No. No, and it still wouldn't place the first two wells we've drilled in what would be considered an economic category where we are going to generate a two- or three-to-one return on our investment.

If we can find the type well that I'm hoping to find, which is roughly 150,000 barrels per well, then it would make a substantial difference, and the wells would become eminently more economic.

Q. Okay. Now, your two wells to the south, you're also -- you've got some data on the Wolfcamp 'AB'; is that

right? Is that reflected on --

A. Right.

Q. -- Exhibit Number 8?

A. That's correct. Exhibit Number 8 is an isopach map of the upper 'AB' zone that we've tested in the 29 Number 1, and it -- Also shown on this particular map is the cross-section, the trace of the cross-section.

And the reason I included this map was to document that this particular reservoir, I do not believe, develops at the proposed location.

You can see the zone thins from the wells in the east half of Section 30, west half, south half and north half of Section 29. The zone thins to the west and northwest into the two wells we drilled in the west half of Section 30 and an older previously drilled Morrow well in the east half of Section 19.

Q. So you're basically just anticipating production out of the Morrow 'AF'; is that right? Out of the Wolfcamp 'AF'?

A. That's correct.

Q. Okay. What -- Have you reached some general conclusions based on your geologic study of this well?

A. Yes, I believe we're drilling in the best possible location for development of the objective reservoir in the lower Wolfcamp.

Q. Now, have you -- Do you feel like you've eliminated risk based on the production data from the other wells in the area in your geologic study?

A. No.

Q. Why not?

A. Well, for the reasons I've stated on the record already, which -- primarily, there's -- First and foremost, there's no control, no positive control of reservoir development north of the existing wellbores in Section 30. In fact, the control we have to the north is all negative.

I do have -- And secondly, the production on the current wells would indicate, really, that the reservoir we are in is fairly small.

Q. Okay.

A. And that odds are, if we get into another zone to the north, it will more than likely be in the same position. If it is in the same position, it will more than likely be a different reservoir than the one that's producing in Section 30.

Q. Based on the issues you've discussed, are you prepared to make a recommendation to the Examiner as to the risk penalty that should be assessed against the nonconsenting interest owners in the spacing unit?

A. Yes.

Q. What risk penalty do you recommend?

A. Two hundred percent plus cost.

Q. Do you think there's a chance that you could drill a well at the proposed location that would not be a commercial success?

A. Yes.

Q. Should this recommended risk penalty apply to all formations that are being pooled? I think we've asked for more than just the Wolfcamp in the Application.

A. Yes, it should.

Q. Does Penwell seek to be the designated operator of the proposed well?

A. Yes.

Q. And in your opinion, will the granting of this Application and the drilling of the proposed well be in the best interests of conservation, the prevention of waste and the protection of correlative rights?

A. Yes.

Q. Mr. Thoma, were Penwell Exhibits Numbers 5 through 8 prepared by you or compiled under your direction?

A. Yes, they were.

MR. OWEN: Mr. Examiner, I offer Exhibits 6 through 8 to the record -- 5 through 8.

EXAMINER CATANACH: Five through 8, yeah.

MR. OWEN: Correct.

EXAMINER CATANACH: Exhibits 5 through 8 will be

admitted as evidence.

MR. OWEN: And that's all I have for this witness at this time.

EXAMINATION

BY MR. BRUCE:

Q. Mr. Thoma, let's look at your Exhibit 8, just for a second.

A. Uh-huh.

Q. I just want to clear up some things. You have -- The wells to the northeast of Penwell's acreage, circled in red, were those just deep enough to test the Wolfcamp, or were they Wolfcamp producers?

A. Those are Morrow producers.

Q. They're Morrow producers?

A. Yes.

Q. Okay.

A. Existing Morrow producers. I say that -- some of those wells -- Let me just make a clarification on that.

They were or are Morrow producers. Some of them have been plugged out, have been abandoned.

Q. Okay. Have they tested the Wolfcamp?

A. No, they have not.

Q. And on Exhibit 7 -- let's -- I want to go through some of the dates here. Let me get the well numbers right here.

Okay, your Well Number 10, which is in the southeast of the northeast, correct?

A. That's correct.

Q. When was that well completed?

A. That was completed in July of 1997.

Q. Okay. And that was targeted to the Morrow and is producing from the Morrow?

A. Yes, it is.

Q. And that well still -- What are the current rates on that well?

A. That well is currently producing about 2.1 million and approximately 70, 75 barrels of condensate a day.

Q. And then moving over to the southwest quarter, which is your Number 9 well?

A. That's correct.

Q. The northeast quarter of the southwest quarter?

A. That's correct.

Q. When was that completed?

A. July, 1997.

Q. Is it producing any longer from the Wolfcamp?

A. Yes, that well is currently producing about 33 barrels of oil a day.

Q. And I think you said 50 to 100 MCF of gas per day?

A. That's correct.

Q. Does it appear to have Bone Spring or Delaware behind pipe?

A. It had shows in the first Bone Spring sand and the lower Brushy Canyon, but they are probably not commercial because of the very low porosities, very thin sands.

Q. They obviously haven't been tested yet, though?

A. No, they haven't been tested.

Q. Okay.

A. There is no Bone Spring or Delaware production in this area. I think the nearest Bone Spring production that would be comparable to this in terms of stratigraphic horizon would be Querecho Plains, which is approximately ten miles to the east.

Q. That's 18 South, 32 East, I think?

A. Correct, yes. And the nearest Delaware production -- There is no Delaware production from the zones we have that shows that.

There is Delaware production, I believe, in Section 28, just offsetting this map, but it's from the upper Cherry Canyon section, not the lower Brushy where we had our shows. Our upper -- Our equivalent upper Cherry section was tight.

Q. Okay. Now, getting back to your Number 10 well,

which is the one we discussed first, you said that one does have -- it had shows in the Wolfcamp?

A. That's correct.

Q. Does it also have shows in the Bone Spring?

A. In the 'AB'. It did have shows in the first Bone Spring sand. Again, they were very thin, the sands were very thin, much thinner than the zones in the analog fields.

And there is also -- The problem with the Bone Spring that we had in this area is that in Querecho Plains there's three or four sand members that produce, and they're all charged. As you go downdip, they become wet as a reservoir in this area, but there are no wet sands in that field to deal with.

In this area what we've got in our wells are two or three very thin sands in the upper first Bone Spring section and a massive -- upwards of 60 foot -- highly porous, very wet sand, immediately below that, approximately 30 feet below the thin sands.

And so from a completion standpoint it is going to be virtually impossible, because the Bone Spring requires a fairly aggressive frac treatment to produce economically. More than likely, that lower sand is going to be communicated with the sands that we have.

And if the sands that we had were thick enough,

by chance, to produce commercially by themselves, odds are that we're going to communicate with the water zone, and it's going to overbear the oil production. We'll wind up with a very small oil cut on these wells.

So the Bone Springs section is really not a viable secondary objective.

The lower Brushy Canyon section, we did not have any shows. The -- Let me back up. The lower Brushy Canyon Section that we had shows on the Number 9 well was not present in the Number 10 well. It's very tight. I think we had eight percent porosity in the lower Brushy.

Q. And then moving on to your Number 1 well, which is in the southeast quarter of the northwest quarter, when was that completed?

A. That was completed in March of 1997.

Q. Okay. And again, did that have shows in the Bone Spring or the Delaware?

A. Yes, it had the lower Brushy zone that the first well -- that the -- I'm sorry, that the 30 Number 9 had. It had the same lower Brushy zone. And it had the same Bone Spring sands that the 30 Number 9 had. The big wet sand with oil stringers above it.

Q. Now, it's been almost a year since all these wells were completed. How come you didn't just drill a direct north offset to the Number 1 well?

A. Why didn't we drill a direct north offset to the Number 1 well? At this point I'm doing my best to keep this property alive internally in our company, because the economics of drilling 30-barrel-a-day, 10,000-foot wells with ten-dollar gas are not very good.

We are producing -- Basically, our leasehold in Section 30 is secure for the time being through the production that we have. Our leasehold in Section 19 is not. We have an obligation to drill a well by August 30th or we lose that leasehold.

And so we are drilling this well, really, not so much on the basis of everyone's desire to drill a development well at this point. It's more a desire to protect the leasehold that we have, because we have capital invested in the leases to this point that we don't want to lose.

Q. And in that Number 1 -- yeah, the Number 1 well, it -- I mean, you're producing from the Wolfcamp 'AF' carbonate, right?

A. In the Number 1?

Q. Number 1.

A. That's correct, that's correct.

Q. Is there any potential for perforating any of the other Wolfcamp carbonates that you show on your cross-section in that well?

A. No.

Q. Okay.

A. And I guess I might add, since we're talking about reperforating, testing additional zones, we have floated an AFE to our partners to add pay -- I believe it was in the 30 Number 9 -- to set a retrievable over the Wolfcamp and come up and shoot the Bone Springs sand. None of our partners approved that AFE, because they were concerned about making a lot of water.

We're not making water where we are. We have no water disposal costs. And given the economics right now, that combined with the probability of getting a high water cut from the Bone Spring, our partners were not interested in testing the Bone Spring.

Q. Now, in addition to the three wells in Section 30 that Penwell has drilled, has it staked other locations in Section 30?

A. When we drilled the first well -- And we've done this routinely on almost every prospect in southeast New Mexico. If you look at our program, you'll see that it's clearly evident.

We drill the first well. As we're drilling, if we have significant shows -- And in the case of the 30 Number 1, we had drill stem tested this Wolfcamp carbonate zone. The drill stem test is listed, details are listed on

the cross-section. And we have flowed nearly a million a day. We felt we had a viable objective.

Given the time requirements of getting permits on federal acreage in New Mexico, we immediately staked a number of offsets. Those offsets were staked -- We probably staked nine or ten wells in Section 30 at that time, so that as we completed the first well, if the well had held up at 200 barrels a day we would have probably drilled those, pursued those locations aggressively. As it is, those locations have sat undrilled for approximately a year, probably, or close to it.

Q. Penwell has staked locations in every unit offsetting the Number 1 well, has it?

A. That's correct.

MR. BRUCE: That's all I have, Mr. Examiner.

EXAMINATION

BY EXAMINER CATANACH:

Q. Just a couple of questions, Mr. Thoma.

Outside of this area that you have mapped on Exhibit Number 7, what's the closest Wolfcamp production to that?

A. The closest is probably Young North, which is -- I believe it's in Section 17 of 18-32. There's two wells that produce from what would roughly be the equivalent of the 'AE' or 'AC' interval. There are middle lower Wolfcamp

-- It's a middle lower Wolfcamp carbonate.

Those two wells have been offset by two or three other wells that were dry. That was the extent of development around that particular field.

And then beyond that, you move another four or five miles to the east in South Corbin, which is a fairly substantial field. That's a 5.5-million-barrel field to date.

Q. According to your Exhibit Number 7, this reservoir, the 'AF' reservoir, maybe extends down further than you have mapped here?

A. Yes possibly. There is virtually no deep -- There are no deep penetrations south of us. The nearest deep penetration to the south is in Section 4 of 19-31 and in Section 17 of 19-31. So you have to move -- before you even have a penetration.

And in both of those wells -- We drilled the well in 17, and there's no Wolfcamp in that well. And the well in 4 was an older well drilled by Gulf; there's no Wolfcamp in that well.

So there's no real positive control. I believe it probably does continue to the south. But right now there are no penetrations in it to the south.

The well --

Q. And --

A. I'm sorry. The wells you see on this map are shallow wells, that do not have the red circles on. This is -- I believe it's Shugart-Yates-Seven Rivers.

So there's an abundance of shallow production in this area, and that's one of the reasons why we really didn't want to let this lease go, because this is an area that's very, very difficult to establish a position in, because it's an old producing area that's been held for many, many years by the shallow production.

And the leases -- The only leases you can get, generally, are short-term assignments, as we've gotten from Canadian Kenwood down in the southwest of 30.

Q. Okay, all of that Yates-Seven Rivers, you wouldn't have an interest in this particular --

A. No. No, our rights -- I think our shallowest rights are 3900 feet down. 3900 and 4500. We have two different term assignments.

Q. Okay. At your proposed location you don't see much in the way of secondary objectives, Bone Spring, Delaware, at the location you're going to drill?

A. I think there's a possibility that we could have -- The Bone Spring, no. I think the Bone Spring -- I think we are downdip in the Bone Spring.

If you go northeast -- I'm sorry, northwest of this area, up into the adjoining township, 18-30, into

Section 2 and 3, there's a field named Walters Lake field, which is a first Bone Spring sand field. I believe that field is at the updip end of this reservoir trend. Very similar -- and I think we are down -- We are in the downdip position of the Querecho Plains trend, basically, or downdip of Querecho Plains.

Moving that field over to our area, Walters field is the equivalent of Querecho plains. It's in the same position structurally and basinally, relative to the shelf edge. It's right up at the margin of the basin, at the toe of the slope. Walters lake traps there, Querecho Plains traps there, Old Millman Ranch traps there.

You go downdip from those fields and there's lots of sand, but they become thin and lentic- -- The ones that have oil become thin and lenticular. The big, thick, reservoir-quality sands are filled with water. That's what I'm seeing in Section 30.

And so I don't think in 19 we're going to be far enough updip to get out of water in the Bone Springs.

In that basal Brushy section, there's one sand in the basal Brushy Canyon that we took cores out of in the Number 30 well, and it should be a viable producer in the 30 Number 1.

It has not been tested in any wells along this trend. It is -- The Delaware fields that produce in this

stratigraphic position, in the position, relative to the shelf edge, are upper Cherry Canyon and upper Brushy Canyon fields, fields like Shugart East, Shugart, the field that offsets us here, and Parkway.

We are in the lower Brushy Canyon section, which is really the equivalent of the pay zones that are in Sand Dunes field, in Engel wells, the fields that are much further out into the Basin. And that particular reservoir section has had shows in a lot of wells in this area, but no one has ever tested it.

And it may produce and it may not. I don't know at this point, because there is no production in this area or anywhere in this vicinity from that reservoir.

I think we have a viable shot at picking that reservoir up in Section 19, but again we're stepping out, and I don't really know what it's going to produce at this point.

Q. Okay. Is the Wolfcamp production in your two wells -- Is that holding up pretty good at this point, or is it still declining?

A. I'll tell you, I would prefer that our engineering witness answer that, because I honestly don't know what the extended recent history is. The current rates I just pulled up before I left, so I -- But I know that they've been -- they've declined rapidly. So I think

they've been producing at this low rate for a fairly significant period of time. Bill can talk about that further.

EXAMINER CATANACH: I've got no further questions.

FURTHER EXAMINATION

BY MR. OWEN:

Q. All right, Mr. Thoma, given the uncertainty of production from the Delaware and Bone Springs that you talk about, do you think the possibility of production from those zones decreases the risk associated with drilling the proposed well?

A. No, I don't. If they were productive in the area -- The Bone Springs is productive. As I said, I don't believe that we're in the right position. We're not in the trapping position.

In the Delaware, if it was productive in the area and I could point to a well and say that someone has tested it in this well, it looks just like ours, I would say, yeah, it would marginally decrease the risk. But we're still stepping out to the north, we're stepping two locations away. And I don't really know what the ultimate geometry of the sand is going to be in this area.

Q. Okay.

A. So I don't think that it substantially decreases

the risk at this point.

MR. OWEN: Okay. That's all that I have at this time, Mr. Examiner.

EXAMINER CATANACH: Okay, this witness may be excused.

MR. OWEN: At this time I call Mr. Bill Pierce.

WILLIAM PIERCE,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. OWEN:

Q. Mr. Pierce, why don't you tell us your full name and where you live?

A. William Pierce, and I reside in Midland, Texas.

Q. And who do you work for, Mr. Pierce?

A. Penwell Energy, Incorporated.

Q. What do you do for Penwell?

A. I'm the operations manager for Penwell.

Q. How long have you been with Penwell?

A. Two and a half years.

Q. Have you previously testified before this Division?

A. Yes, I have.

Q. At the time of that testimony, were your credentials as a petroleum engineer accepted and made a

matter of record?

A. Yes, they were.

Q. Are you familiar with the Application filed in this case on behalf of Penwell?

A. Yes, I am.

Q. Are you familiar with the costs associated with the development of the Wolfcamp formation in this portion of Southeast New Mexico?

A. Yes.

Q. All right, let's refer back to the AFE that was attached to Penwell Exhibit Number 3. Can you review those totals and the costs reflected on that AFE for the Examiner, please?

A. Yes, in the first line which we have, "BCP" is before casing point. As you can see, it's about $456,000 in intangibles. Total tangibles would be $53,000 -- approximately $54,000. So we have arrived at a total dryhole cost of $523,000.

If you'll move over to the next column, which is "ACP", after casing point, total intangibles are approximately $171,000, total tangibles are approximately $237,000, for a total after casing point cost of $408,000, which, if you'll total those two columns up, a completed well -- a completed pumping Wolfcamp well costs approximately 918,000.

MR. OWEN: Mr. Examiner, I don't think I asked you if Mr. Pierce's qualifications were acceptable.

EXAMINER CATANACH: Mr. Pierce's qualifications are acceptable.

Q. (By Mr. Owen) All right. Now, Mr. Pierce, have you reviewed this AFE to determine whether the costs reflected are unique to this well as far as being costs that can't be attributed to equipment that could be used on another location, for example?

A. Yes, this AFE was designed strictly for the Wolfcamp wells that we have in the particular producing area.

Q. Are there any other Wolfcamp producing wells in the immediate area, other than the Penwell wells?

A. No, sir, not in the immediate area, there is not.

Q. Are there -- Is there anything unique about the Wolfcamp formation in this particular area, as far as drilling costs or producing costs?

A. As compared to other Wolfcamp areas in the surrounding area, I would say no.

Q. Are the costs that are reflected on this AFE in line with both the Penwell wells and the other Wolfcamp wells in the general area?

A. As what I have seen, that is correct, they are.

Q. Okay. Now, I think you heard Mr. Thoma indicate

that he wasn't familiar with the history of production on the other Wolfcamp wells. Can you review that history for the Examiner?

A. Yes. I only went back the previous six months --

Q. Okay.

A. -- but those wells, as Mr. Thoma has alluded to, have declined quite rapidly in the initial months after completion. But since then, in the past six months, they are fairly flat. They're experiencing less than a two-percent decline at the current producing rates. That was for the previous six months of production, is what I'm looking at.

Q. And those were just drilled in July of 1997; is that right? Or completed in July of 1997?

A. Completed in -- That's correct, in July.

Q. Okay. So you've basically got ten months of production, 11 months of production history on those wells?

A. That is correct.

Q. Okay. And they were completed about the same time; is that right?

A. Very close to the same time, that's correct. I'm not sure of the exact dates, but fairly close of each other.

MR. OWEN: Okay. That's all that I have of this witness at this time, Mr. Examiner?

EXAMINER CATANACH: Mr. Bruce?

EXAMINATION

BY MR. BRUCE:

Q. I really only have one question, Mr. Pierce. Are the two Wolfcamp wells flowing, or are they on pump?

A. No, sir, they have to be rod-pumped.

MR. BRUCE: That's all I have, Mr. Examiner.

EXAMINER CATANACH: I have no questions of this witness. He may be excused.

MR. OWEN: Those are all the witnesses that I have, Mr. Examiner.

In conclusion, I'd like to first point out that the Applicant in this case has an August 30th drill deadline due to a farmout in this case. The Applicant would like the order in this case expedited.

The structure in the area shows that the well is a risky well in the Wolfcamp. There is limited Wolfcamp production in the area, and there is virtually no certainty of any production from any other formations.

Although we do have some history in the Wolfcamp, the risk associated with this well, as the witnesses have testified, is fairly high, certainly higher than the 200 percent which we're allowed under the statute, and we request that the order be issued pooling the acreage to the subject well, and that a 200-percent-plus-cost risk penalty

be assessed on this well.

EXAMINER CATANACH: Mr. Bruce, do you have anything to say?

MR. BRUCE: Yeah, Mr. Examiner, first I'd like to point out that I think maybe the bare minimum has been done to get Canadian Kenwood's voluntary joinder in the well. There's been one letter and one, maybe two, phone calls. I think with a little more effort, perhaps some agreement might have been reached.

As far as the risk penalty, as Mr. Thoma has testified, the proposed location is structurally higher, and it has a thicker section than the existing Wolfcamp wells. Although it's stepping out two locations, that's really just for leasehold-protection measures, not for any other reason.

In fact, Penwell has staked seven wells in Section 30, in addition to the three that they've already drilled. And furthermore, it's willing to bear 100 percent of the cost.

Canadian Kenwood is by far the largest interest owner in this unit. They do not -- That company, as Mr. Wheeler is aware, is not an operator in the state, and they prefer to participate more on a farmout or term-assignment basis.

But the fact, the mere fact that they're willing

to bear 100 percent of the well costs shows low risk, as do Mr. Thoma's geologic plats.

We think that overall, that shows a low risk in this area. The production from these wells is stable, and they will probably continue to produce for a long time at these rates, and we would ask that a maximum penalty of 100 percent be imposed on this Application.

EXAMINER CATANACH: Okay, is there anything further in this case?

MR. OWEN: That's all that I have, Mr. Examiner.

EXAMINER CATANACH: Okay, there being nothing further, Case 11,992 will be taken under advisement.

And this hearing is adjourned.

(Thereupon, these proceedings were concluded at 9:25.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 11992, heard by me on June 25 1998.

David R. Catanach, Examiner
Oil Conservation Division

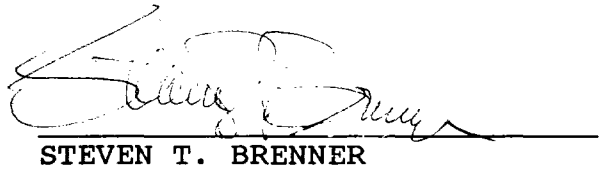
CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL June 28th, 1998.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1998