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:	)	
APPLICATION OF HARVEY E. YATES COMPANY FOR EXPANSION OF A UNIT AREA, OTERO COUNTY, NEW MEXICO	)	CASE NO. 14,000

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: WILLIAM V. JONES, Jr., Technical Examiner
DAVID K. BROOKS, Jr., Legal Examiner

September 20th, 2007

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, WILLIAM V. JONES, Jr., Technical Examiner, DAVID K. BROOKS, Jr., Legal Examiner, on Thursday, September 20th, 2007, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

I N D E X

September 20th, 2007
Examiner Hearing
CASE NO. 14,000

* * *

E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	5	8
Exhibit 2	5	8
Exhibit 3	5	8
Exhibit 4	6	8
Exhibit 5	6	8
Exhibit 6	7	8

* * *

A P P E A R A N C E S

FOR THE DIVISION:

DAVID K. BROOKS, JR.
Assistant General Counsel
Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

FOR THE APPLICANT:

JAMES G. BRUCE
Attorney at Law
P.O. Box 1056
Santa Fe, New Mexico 87504

FOR CHESAPEAKE OPERATING, INC., AND XTO ENERGY, INC.:

KELLAHIN & KELLAHIN
117 N. Guadalupe
P.O. Box 2265
Santa Fe, New Mexico 87504-2265
By: W. THOMAS KELLAHIN

* * *

WHEREUPON, the following proceedings were had at 2:00 p.m.:

EXAMINER JONES: And let's call Case 14,000, Application of Harvey E. Yates Company for expansion of a unit area, Otero County, New Mexico.

Call for appearances.

MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, representing the Applicant. I have one witness. And if the record could reflect, the witness is Vernon Dyer who was previously sworn and qualified.

EXAMINER JONES: Okay.

VERNON D. DYER,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Mr. Dyer, what the heck are we here for today?

A. We have received approval from the BLM and the State Land Office to expand the existing unit, Bennett Ranch Unit, to be more conformed to the type of production we find.

Q. Okay. And how long ago was this unit originally formed?

A. In 1997.

Q. And did the order that approved the unit, which was R-10,527, require that if the unit was expanded, that the operator come back in and seek Division approval?

A. That is correct.

Q. Okay. What does Exhibit 1 reflect?

A. That is the -- a map of the unit, and it shows the old unit and the new expanded part, the expanded part being more of the square going from Section 1 to Section 3 -- or Section 27, I'm sorry -- and then across, and then down across the bottom of the State line, and going up the side, Section 31, 30, 18, the over again to the corner -- southeast corner of 12, and then back up to the top.

Q. Okay. That is the Texas state line down at the very bottom?

A. Yes, that is the Texas state line at the very bottom.

Q. Does Exhibit 2 reflect the original acreage in the unit?

A. Yes, it does.

Q. And does Exhibit 3 reflect the -- what would be the expanded -- the total acreage in the expanded unit?

A. Yes, that would be it.

Q. Is all of the land in the unit as expanded federal or state land?

A. Yes, it is.

Q. And you did obtain approval, preliminary approval from both the Commissioner of Public Lands and the Bureau of Land Management regarding this expansion?

A. Preliminary from the State Lands as subject to the OCD hearing, and then from the BLM it's just straight approval.

Q. Okay, that's final approval?

A. That's final approval, yes.

Q. But the BLM does also require you to come up and get approval from the OCD?

A. Yes, they request that we come up and get -- to the OCD.

Q. Okay. And the State and BLM approvals are Exhibits 4 and 5, are they not?

A. That is correct.

Q. The reason for the expansion, could you summarize for the Examiner?

A. Yes, when we originally put this together in '97 and we were basing it on oil production on 40-acre spacing, the two existing wells we have were both gas wells on 640 spacing. So we have increased it to allow us to have our 640 spacing on all of the wells that will be drilled.

Q. Okay, so this expansion would allow you to dedicate an entire section to each well that may be drilled in the unit?

A. That is correct.

Q. And that is the basic reason for the expanded unit?

A. Yes, that is.

Q. And without going into too much detail has this been a long, hard road for you getting wells drilled in this unit?

A. Yes. And I can explain if you want to, but it would be -- it's so numerous I don't know where to start.

Q. And was notice given to both the Commissioner of Public Lands and the Bureau of Land Management regarding this Application?

A. Yes, it was.

Q. And is that reflected in Exhibit 6?

A. Yes, it is.

Q. In your opinion, is the granting of this Application in the interests of conservation and the prevention of waste?

A. Yes, I do believe that.

Q. And were Exhibits 1 through 6 either prepared by you or under your direction or compiled from company business records?

A. That is correct.

MR. BRUCE: Mr. Examiner, I'd move the admission of Exhibits 1 through 6.

EXAMINER JONES: Exhibits 1 through 6 will be admitted.

EXAMINATION

BY EXAMINER JONES:

Q. Mr. Dwyer, these -- or, I'm sorry, Dyer. Is this a statutory unit or a regulatory -- or an exploration unit?

A. It is an exploration unit.

Q. And is it oil or is it gas?

A. It is gas.

Q. Gas.

A. The existing wells we have are gas wells, yes.

Q. Just repeating what you said earlier, I'm sorry.

A. Oh, that's okay. I'm at the age I repeat a lot of times.

Q. Are you familiar with that order, that R-10,537? It said -- Was there findings in there for why that OCD approval should be required for expanding the unit?

A. I don't know of any reason why they did it in the deal. I'm assuming that it's so they can keep track of what's going on. I mean, they're the controlling entity for the producing well, so...

Q. Okay. And can you tell me a little bit about the drilling out there so far? How many wells and what -- what have you found and --

A. We've actually drilled three. The first one we

lost the hole to -- immediately, and then skidded the well and drilled the 1Y. So we have two wells out there, one producing from the Morrow -- from the Mississippian -- Mississippian, and one from the Canyon.

The drilling of the wells out there has been very difficult due to government interference, for lack of a better word. State, federal and county.

Q. That first well, it was skidded -- How deep did you get before it was skidded?

A. We drilled to the -- he's the geologist, he can tell you all that. But we drilled to the basement.

MR. YAHNEY: Would you like me to answer here?

EXAMINER JONES: You know what, I should --

MR. YAHNEY: I'm a little more familiar with some of the geology than Vernon.

EXAMINER JONES: Yeah, let me concentrate on questions more related to land first, and then --

MR. YAHNEY: Okay.

EXAMINER JONES: -- maybe we can get Mr. Yahney --

THE WITNESS: The difficulty -- I do know some of the difficulty out there. One of the difficulties is, it's way underpressured reservoirs, and if you drill with anything -- unless you drill with air, you're going to mask everything and you'll never find it, and that's what's

happened out there most of the time.

Q. (By Examiner Jones) You don't see it when you're drilling --

A. Well, the mud covers it up, so it's -- pressures. It's underpressured reservoirs. And Gordon can explain that much better than I can.

Q. Now, does this -- Let me get this straight. The BLM requests OCD approval, but the State Land Office requires it?

MR. BRUCE: That's under State Land Office regulation, they do --

THE WITNESS: Yes.

MR. BRUCE: -- require -- It's not in the unit agreement, it's -- well, it may be in the unit agreement, but under State Land Office regulations they do require that any creation or expansion of any type of unit have OCD approval.

Q. (By Examiner Jones) Okay, and you could probably answer the stips for the BLM on drilling. What --

A. On the first two wells there was stips.

Q. Pardon?

A. On the first two wells there was no stips.

Q. Okay, there wasn't any stipulations on --

A. No.

Q. -- on the drilling?

And then they changed it?

A. They're in the process of trying to change them, yes.

Q. But they're not yet, they're -- haven't changed --

A. Well, we don't know, we haven't got the new APD yet. It's still tied up in the courts and through the state government has filed suit against it, so we're waiting.

Q. The unit itself -- the unit requires probably so many wells to be drilled within a certain amount of time --

A. Yes, they do.

Q. -- and what happens if you can't get those drilled because of --

A. Then it can -- Then the unit contracts down to the existing participating areas that are in effect at that time.

Q. Okay. What about on state land -- State Land Office lands? What kind of -- Do they have any stipulations on the drilling requirements?

A. We haven't drilled any on state land yet, so we --

Q. So you don't?

A. -- we don't -- haven't seen any extra.

Q. Okay.

A. We've really been delayed. The first well was discovered in '97, so we're still trying to get everything done.

Q. What about right-of-way for getting gas out of there?

A. The -- When we discovered the well, the resource management plan for this area did not have any provisions for the producing of oil or gas or the transporting of oil and gas. So after we discovered the well, they immediately had to shut everything down and go into a resource management plan, which under BLM law, regulations, they have to get it where they can -- get it where we can actually produce the gas, and then transport it.

So up until the resource management plan was issued to the public in -- a few years ago, a year ago, two thousand- -- I don't have my timeline with me, I apologize.

MR. YAHNEY: 2005, basically.

THE WITNESS: 2005, January of 2005. There was no -- we could not transport or produce the gas that was out there.

The minute that was issued, the new RMP was issued of record, record of decision, the Governor of New Mexico had a 60-day or a 30-day resource -- a comment period. He made his comments, it was taken in.

The BLM rejected all the comments and said it

wasn't right, and they went ahead and reissued it again. And at that time the Attorney General, under the Governor's instructions from the -- New Mexico, filed a suit against the existing RMP that was approved by the judge, and it has been set aside, and now we're still -- Judge Black here is still handling the court case, and they're still in negotiations between the Attorney General, the environmental groups and the BLM on trying to get the case settled.

And until something is done, we're sitting out there with two perfectly good natural gas wells that cannot be produced.

Q. (By Examiner Jones) Okay. And --

A. And the people of the United States is what's losing here. It's not us. Because the gas is not coming on, and the revenue is not being paid to the State or to the federal government.

Q. Was there any lease expirations that was prompting the adjustment of this unit at this time?

A. No, the lease expiration, we've already -- the -- all the leases that was out there has already been expired on us, because we couldn't do anything with them. And we have negotiated with the BLM to put a lot of our obligations in suspense while the lawsuit is going on because we have no control over it.

So we've got -- all the leases that's in that area now is in suspense, except for two -- or except for one leased on three sections, which we bought at the July, 2005, land sale for the BLM, and it has not been issued yet because it has also been put up into the lawsuit filed by the Attorney General.

Q. Okay.

A. And those leases have not been issued, so there's no time running yet.

Q. Okay. That Canyon, was it -- is that gas too?

A. Yes.

Q. Basically Pennsylvanian, Mississippian gas. Okay.

A. Dry gas too.

EXAMINER JONES: Pretty dry gas. Okay, I think that's all the questions for your land witness.

MR. BRUCE: Do you want me to put Mr. Yahney --

EXAMINER JONES: If you don't mind.

EXAMINER BROOKS: Well, I'd like to ask a couple questions.

EXAMINER JONES: Okay, go ahead. Sorry, Mr. Brooks.

EXAMINATION

BY EXAMINER BROOKS:

Q. This is -- it looks like the acreage totals add

up, this is all federal or state land?

A. Yes, sir.

Q. No private lands?

A. Not at all.

Q. And all the tracts within the expanded unit will be committed to the unit?

A. Yes, sir.

Q. Is Heyco the only working interest owner involved?

A. No, there's -- we have two partners.

Q. Okay, and they've joined in the amendment to the unit agreement --

A. Yes, they have.

Q. -- to expand?

A. Yes.

Q. Okay, so it's an entirely voluntary agreement at this point?

A. Yes. Yes, it is.

EXAMINER BROOKS: Let's see, are there any other questions I need to ask?

MR. BRUCE: Mr. Brooks, if you look at Exhibit 5, the last several pages are the revised Exhibit B to the unit agreement --

EXAMINER BROOKS: Okay --

MR. BRUCE: -- and it would set forth the --

EXAMINER BROOKS: -- you did not put the unit agreement itself in the record?

MR. BRUCE: I don't think the unit agreement would change.

THE WITNESS: No, the unit agreement didn't change.

Q. (By Examiner Brooks) Well, the unit agreement is a federal form, as I understand it.

A. Yes, it's a fill-in-the-blank form.

EXAMINER BROOKS: The form requires approval by -- if I recall rightly, it requires approval by the appropriate state authority. And from what you were telling us, it's -- the requirement for OCD approval originally rises from the State Land Office Rules?

MR. BRUCE: That's correct.

EXAMINER BROOKS: Because just as with state units, they won't give final approval until they receive the OCD approval.

MR. BRUCE: That is correct.

EXAMINER BROOKS: This question I guess is for you, Mr. Bruce. What provision of the Oil and Gas Act confers the authority to approve these units on the OCD? I know we've been doing it for years.

MR. BRUCE: Yeah, and Mr. Examiner, I don't know if I can point to anything other than general provision

about prevention of waste and -- just the general conservation provisions. I've asked that myself, and if this was an entirely federal unit we wouldn't be here.

EXAMINER BROOKS: Right, because it wouldn't require state approval.

MR. BRUCE: And so all I can point to is the State Land Office regulations.

EXAMINER BROOKS: State Land Office. Okay, thank you. That's all I have.

MR. BRUCE: Mr. Yahney back up to the stand, and again if the record could reflect that he was previously sworn and qualified.

EXAMINER JONES: Do you want to first --

MR. BRUCE: I'll just let you go.

EXAMINER JONES: Okay, that's what I was told earlier.

GORDON K. YAHNEY,

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

EXAMINATION

BY EXAMINER JONES:

Q. Okay, the -- Can you talk a little bit about the first three wells and what they hit and what they didn't hit and what you were going for originally and...

A. The original unit was set up, we set up an

exploratory unit to test the Fusselman formation. We thought that that would be the deepest potential reservoir, and based on some geochem and some other wells, mainly in Texas, we thought that that reservoir would probably contain oil. So we set up an outline with the BLM based on the geology that was outlined with 40-acre proration units. Okay.

In drilling, eventually, you know, we discovered gas. Okay? The drilling sequence was, in mid-1997 we went out there to the Bennett Ranch unit and started a well, you know, targeting the Fusselman, and the Fusselman is roughly at about 5500 to 6000 feet, we thought, in that initial well. The Bennett Ranch Unit Number 1Y was drilled to a depth of about 2400 feet before we lost the hole.

MR. DYER: The other 1. You said the 1Y.

THE WITNESS: The 1 was drilled to 2400 feet. The 1Y is the replacement.

The situation there is, we had shows of hydrocarbons at very shallow depths. We also drilled into a situation where we had gas and water in close proximity, and we had a situation where we got a very sensitive shale wet and it basically came in on us, and we were unable to drill any further and got stuck.

Q. (By Examiner Jones) So you had sands and shales, sequence there?

A. The sequence there at Bennett Ranch, the surface is Yeso, and it's very thin. We drilled into a very thin Abo section and at about 600 feet or so we went into the Wolfcamp. The Wolfcamp, right where that is, that is about 1300 to 1500 feet thick.

Q. Was the --

A. And that's all carbonate for the most part --

Q. Oh.

A. -- until you get to the bottom of it, and at the bottom of the Wolfcamp is an interval called the Powwow. The Powwow is a conglomerate and shale sequence that is the -- you know, it's the remnants of a large regional unconformity. And it was in this sequence of red and green shales and conglomerates that make up the sequence of the Powwow and the top of the Penn where we had gas and we had water, and we had the shale problems.

Q. So it was below the Wolfcamp that you had --

A. Well, the Powwow is considered to be a Wolfcamp-age lower member of the Wolfcamp. It's a lower member of the Wolfcamp.

Q. Okay. But when you went back into the Pennsylvanian, that's when you started hitting --

A. Right, we got to a point where we got just a little bit into the Pennsylvanian and got stuck, basically.

Q. How was the --

A. And we were drilling -- You know, we drilled this well like we drilled the second and the third one, with air. We got to a point where we had a lot of water come in on us. And it was a matter of -- we -- you know, we spent too much time, because of mechanical problems, in one place and the shale swelled on us and came in on us.

Q. Okay.

A. We've since learned a little bit from our mistake there in that we drilled our second well just slightly different in terms of the -- what we're using to try to control the shales.

Q. Okay. So those shales wouldn't have been a problem if they hadn't been hit by water, would they?

A. You can't keep the water off of them, really, but you can control that by using, you know, a high concentration of KCl. We ended up misdrilling the second and third well through that particular interval, you know, and we didn't have near the problems. Of course, we didn't have mechanical problems in the interval where the shale was either. We figured that we could leave that particular shale sequence open for about three days max, before it was going to give us problems.

Q. And that Canyon is right below where you have trouble?

A. The -- You have to realize that there's a big

unconformity out there. The Canyon has a lot of relief on it. At the southern end of the structure it's within -- oh, it's within a thousand feet of the unconformity. If you're offstructure, there's expansion in that section, that Penn shale section, and it picks -- that section expands to -- by probably up to 1500 or more feet.

Q. And how far deep is the Mississippian, then, below the Canyon?

A. Back to the -- you know, kind of the drilling scenario, once we were stuck there and had junked the well, we skidded that well over about 50 to 100 feet and drilled a replacement well. That well -- we drilled that well down to basement. Basement was at a little more than 7000 feet. We looked at the Fusselman and the Montoya and Ellenburger equivalents as well.

And in the drilling of that well we had lots of gas up in the Penn section, and we had a big gas increase in the Mississippian. Big -- You know, we're drilling with air, big flare. I don't know whether you've seen the video from that. We did show that to some people. Lots of excitement.

Q. Did you change anything else on the first -- between the first and the second well, as far as your casing design, what you tried to case --

A. Well, we tried to run casing in the first well.

That was part of the problem. We got this section wet, and we were trying to run casing to solve that problem and got it stuck.

Q. Okay.

A. We ran a deeper string of casing in the subsequent replacement well --

Q. Okay.

A. -- and we were able to get through it, you know, the problem area, quicker and get quite a ways below it and run a string up the casing.

Q. Were you able to cement the casing, the second casing?

A. We cemented this second -- the intermediate casing in that second well.

Q. Were you able to get it to the surface?

A. I would have to look at a schematic to -- I don't remember the exact situation there. I would assume that that was kind of what we wanted to do, but I don't know that that's necessarily what happened there.

Q. Well, I understand in wildcat areas you have to kind of play -- you know, feel your way. But as far as the adjustments that you made to protect the fresh water, can you tell me what you did to do that? I say fresh water. I mean the waters you encountered in that --

A. The waters that we encountered -- we had a

protection string, you know, just a surface string, and then we were running a string through the section to get below the base of the Wolfcamp into the Penn section. Okay. The water that we were seeing, we were seeing water at the base of the Wolfcamp in that Powwow to the lower part of the Wolfcamp section. And that was, you know, what we were trying to shut off and get that Powwow behind pipe.

Q. Were you able to do that in the second and third wells?

A. Yes, we were.

Q. So you were able to adjust your drilling program and get casing down?

A. The third well drilled a little bit different. It was much higher on the structure, on the unconformity structure, and we did not have the water problems that we had lower in the section, lower in the first two wells. The 25-1 is somewhere between -- depending on the horizon that you're mapping, between 500 and 1000 feet higher than the initial 1Y.

Q. And you moved up because you saw gas and you wanted to move updip?

A. Yes, we had the opportunity to move updip, further updip on the structure, and test that.

Q. You gave up on the oil?

A. We drilled that third well down to the Fusselman

again and had another look at it --

Q. But not --

A. -- and it was not productive. In fact, we had better shows, indications of hydrocarbons, in the first well.

Q. Did you drill the first one with air and then switch over to kind of a saltier water mud -- water system on the second ones, or did you drill them all with air?

A. We drilled them all with air to a certain point.

You know, the first well we drilled with air until we had problems with too much water, that we couldn't lift it.

Drilled the second well with air to a point where we were in the lower Paleozoic section, and we switched over to a fluid system.

And we did that, or tried to do that again with the third well.

Q. So --

A. We were using a very cut brine -- I wouldn't call it a brine, I'd call it a -- you know, we were using drilling fluids that we thought were fairly close to the same chloride concentrations of the waters that we were seeing when we were drilling, and that's kind of a fairly wide range, but it's not very salty.

Q. Where did you get your water for drilling?

A. We got our water for drilling from a couple places, but I would -- one of them that comes to mind, we were buying water from Bebo Lee at the Hat Ranch.

Q. Which is close by somewhere?

A. Yeah, it's about, I don't know, eight, ten miles to the north of us.

Q. Wasn't -- Okay, north. So this goes all the way down to the Texas state line, 11,637 acres.

Well, in your -- can you -- in your opinion, is this expansion of this unit and conversion over to a gas target -- as far as the geologic concept that's involved, it was obviously different than it was for the oil, but what -- did you have to show that to the BLM and the State Land Office, the concept that --

A. Well --

Q. -- why you wanted to retain these leases --

A. -- we --

Q. -- in suspense, at least, in this --

A. Well, I don't know, I lost that. But we went and demonstrated to the BLM that the two producing wells, the one in the Mississippian -- and it's producing from a -- of a fractured carbonate and an igneous sill in combination -- and the Canyon, which is a sandstone interval, both of those reservoirs are high-perm, low pressure, with lots of deliverability but low pressure, lots of volume

deliverability but low pressure, and they would drain a pretty fair extent. So far that some of the -- one of the production tests that we ran on the initial 1Y well, we could not see any kind of barriers.

Now if you want details and that kind of stuff, you need to talk to an engineer, which I'm not.

Q. That's all right. As far as the structure goes, though, what can you say about the structure within this unit? Does the unit contain a geologic structure?

A. The unit contains a geologic structure that we think, based on the deeper horizon, that being the deeper pay zone, Mississippian, justifies the extent or the expansion of the unit.

Q. As defined by --

A. Again, that's defined by seismic and the closure that we see on the seismic in terms of the regional seismic. You're talking about 2-D lines that cover the area. It's not really exactly tied down by any means at this point.

EXAMINER BROOKS: Okay, I don't have any more questions.

EXAMINER BROOKS: Nor do I.

EXAMINER JONES: Okay, thank you.

MR. BRUCE: That's all I have on this, Mr. Examiner. I do remember in looking at one of the plats

that was presented by the geologist in the first go-around in this, and I had never seen such a large-scale plat with so few wells on it, but...

EXAMINER JONES: Okay, with that we'll take Case 14,000 under advisement.

(Thereupon, these proceedings were concluded at 2:42 p.m.)

* * *

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

_____, 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 September 26th, 2007.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 16th, 2010