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 SANTA FE ENERGY OPERATING PARTNERS, L.P.

CASE NO. 11,070

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

August 18, 1994

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on Thursday, August 18, 1994, at Morgan Hall, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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I N D E X

August 18, 1994
Examiner Hearing
CASE NO. 11,070

* * *

E X H I B I T S

	Identified	Admitted
Exhibit 1	5	11
Exhibit 2	7	11
Exhibit 3	7	11
Exhibit 4	10	11
Exhibit 5	10	11
Exhibit 6A	13	19
Exhibit 6B	16	19

* * *

A P P E A R A N C E S

FOR THE APPLICANT:

HINKLE, COX, EATON, COFFIELD & HENSLEY
218 Montezuma
P.O. Box 2068
Santa Fe, New Mexico 87504-2068
By: JAMES G. BRUCE

* * *

WHEREUPON, the following proceedings were had at 3:00 p.m.:

EXAMINER CATANACH: At this time we'll call Case 11,070, which is the Application of Santa Fe Energy Operating Partners, L.P., for compulsory pooling, an unorthodox gas well location, and a non-standard gas proration unit, Eddy County, New Mexico.

Are there appearances in this case?

MR. BRUCE: Mr. Examiner, Jim Bruce from the Hinkle law firm in Santa Fe, representing the Applicant. I have two witnesses to be sworn.

EXAMINER CATANACH: Additional appearance?

Will the witnesses please stand and be sworn in?

(Thereupon, the witnesses were sworn.)

CURTIS D. SMITH,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Would you please state your name for the record?

A. My name is Curtis Smith.

Q. Who do you work for and in what capacity?

A. I work for Santa Fe Energy, and I'm a landman.

Q. Have you previously testified before the Division as a landman?

A. Yes, I have.

Q. And were your credentials accepted as a matter of record?

A. Yes, they were.

Q. And are you familiar with the land matters involved in this case?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I'd tender Mr. Smith as an expert landman.

EXAMINER CATANACH: Mr. Smith is so qualified.

Q. (By Mr. Bruce) Mr. Smith, briefly what does Santa Fe seek in this case?

A. Santa Fe Energy seeks an order pooling all mineral interests from the surface to the base of the Atoka formation, underlying the west half of Section 19, Township 23 South, Range 29 East, Eddy County, New Mexico.

And we also seek an unorthodox location and nonstandard proration unit.

Q. Would you please move to Exhibit 1 and identify it for the Examiner and describe its contents?

A. Exhibit 1 is a land plat outlining the proration unit for the well, the west half of Section 19. And the well location is indicated by the red square on the plat, and Santa Fe Energy's acreage is colored yellow.

Q. Is this a standard unit?

A. No, it's not. The unit consists of lots 1 through 4 in the east half of the west half of Section 19, containing 313.66 acres, which is nonstandard. And like I say, we request approval for a nonstandard proration unit.

Q. What is the exact footage location of the well?

A. The location of the well is 1316 feet from the south line and 1320 feet from the west line of Section 19.

And our original location was staked at 1310 feet from the south line and 1330 feet from the west line. However, due to the size of lot 4 being an irregular section and so forth, we had to move the location slightly to stay ten feet away from the quarter-quarter section line.

MR. BRUCE: Mr. Examiner, the location they're seeking approval for is slightly different from what was contained in the Application, but it's less unorthodox, so I do not believe it needs to be readvertised.

EXAMINER CATANACH: Can you give me that amended location again, Mr. Smith?

THE WITNESS: The location we're seeking approval for is 1316 feet from the south line and 1320 feet from the west line of Section 19.

And the original location was 1310 feet from the south line and 1330 feet from the west line, and that's what was advertised.

Q. (By Mr. Bruce) And Santa Fe's geologist will further describe the reason for the unorthodox location?

A. Yes, he will.

Q. Who do you seek to pool?

A. As you can see on the land plat, Santa Fe Energy owns the northwest quarter of Section 19, and Texaco, owns the southwest quarter of Section 19, and we seek to pool Texaco.

Q. Please describe your efforts to get Texaco to join in this well. And I refer you to Exhibit 2.

A. Okay, Exhibit 2 is my letter dated June 20th, 1994. This letter proposed the Harroun Trust 19 Number 1 well.

And in the alternative of Texaco participating in the well, we gave Texaco the opportunity to farm out to us, delivering 80-percent net revenue interest with a quarter back in after payout.

Q. The original letter included with it an AFE; is that correct?

A. Yes, and that's Exhibit 3. That's --

Q. Okay, but --

A. Okay.

Q. -- after this letter, what contacts did you have with Texaco?

A. Well, I called Texaco on about June 27th to make

sure they received the AFE and so forth. And since then I've talked to them six or seven times, probably five of those times in the last three weeks.

Q. Did you send Texaco anything else, other than the proposal letter?

A. Yes, I sent them an operating agreement, along with this June 20th letter and AFE.

Also, Texaco and Santa Fe Energy's land position is fairly large in this area. It covers, oh, four sections or so. I sent them an operating agreement covering the four-section area, to try to form an AMI in the area with Texaco, and I sent that the week of August 12th.

Q. And you have not yet heard from them one way or the other?

A. Right. I do not have a signed AFE nor a signed operating agreement from Texaco as of this date.

Q. In your opinion, has your effort to obtain Texaco's joinder in this well been in good faith?

A. Yes, sir.

Q. What is the proposed cost of this well?

A. $1.22 million to test the Atoka formation at a depth of 12,200 feet. That's completed well cost.

Q. Okay. Does Santa Fe ask that it be designated as operator of this well?

A. Yes.

Q. Now, the cost you just mentioned, the over $1.2 million, is that in line with the costs for wells of similar depths --

A. Yes.

Q. -- encountered in this area of Eddy County?

A. Yes, it is. And like I said, it's a 12,200-foot Atoka test, and the dryhole and completed well cost are outlined in Exhibit 3.

Q. Do you have a recommendation as to the charges Santa Fe Energy should be paid for overhead?

A. Yes, we're requesting $6000 per month drilling overhead rate and $600 per month for a producing well rate.

Q. Are these amounts in line with amounts normally charged in operating agreements in this area of Eddy County --

A. Yes, they are.

Q. -- for wells of this depth?

A. Yes, for this depth.

Q. What penalty do you recommend against the nonconsenting interest owner?

A. Cost plus 200 percent. This figure is the predominant nonconsent penalty and operating agreements we use in southeast New Mexico.

Q. And will your geologist also discuss the risk factors?

A. Yes, he will.

Q. Was Texaco notified of this hearing?

A. Yes, they were.

Q. As to the unorthodox-location aspect of this case, who are the offset operators?

A. Exhibit 4, I have the offset operators listed. East half of Section 24, Santa Fe Energy. North half of Section 25 is Amoco. North half of Section 30 is Texaco and Santa Fe.

Q. And were these operators also notified, other than Santa Fe, of course, of this hearing?

A. Yes.

Q. Is Exhibit 5 your affidavit of notice?

A. Yes, it is.

Q. And does it contain copies of the notice letters and certified return receipts?

A. Yes, it does.

Q. Were Exhibits 1 through 5 prepared by you or under your direction?

A. Yes, they were.

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

A. Yes.

MR. BRUCE: Mr. Examiner, at this time I move the admission of Santa Fe's Exhibits 1 through 5.

EXAMINER CATANACH: Exhibits 1 through 5 will be admitted as evidence.

MR. BRUCE: I have nothing further of the witness at this time.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Smith, in your letter of June 20th to Texaco, in a farmout agreement that you would be willing to accept, covered more area and more land than you needed for that well. What's the reason for that?

A. Again, whenever I discussed this with Mr. Sleeper at Texaco, I made it very clear to him that we would accept a farmout in Section 19, in the proration unit only. And that's when he and I discussed the possibility of forming an AMI covering several sections, and I did send him an operating agreement covering several sections.

And like I said, to this date I have not -- I do not have an indication from them that they will either participate in this initial well --

The original operating agreement I sent to him covered all of Section 19 and had an August 1st spud date in that provision for the initial well. And Texaco has told me that they cannot commit to a date that they would

give us a decision because they're going through a reorganization. And we're anxious to spud our well, and that's why we're here today.

Q. Texaco did have the option of just farming out the southeast --

A. Yes.

Q. -- southwest quarter of Section 19?

A. Yes, and that was in verbal -- you know, telephone conversation, not in my letter.

Q. Okay. Has Santa Fe drilled Atoka gas wells in this area recently?

A. Yes, we've drilled one -- Our geologist can testify to that, but I think I'm correct in saying that we drilled one in the south half of Section 30.

EXAMINER CATANACH: I have nothing further of the witness.

THE WITNESS: Okay, thank you.

MR. BRUCE: Call Mr. Goldstein to the stand.

LOUIS GOLDSTEIN,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Would you please state your name for the record?

A. Yes, my name is Louis Goldstein.

Q. Who do you work for and in what capacity?

A. I work for Santa Fe Energy as a geologist in Midland, Texas.

Q. Have you previously testified before the Division as a geologist?

A. Yes, I have.

Q. And were your credentials as an expert geologist accepted as a matter of record?

A. Yes, they were.

Q. And are you familiar with the geology in the area of this prospect?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I tender Mr. Goldstein as an expert geologist.

EXAMINER CATANACH: Mr. Goldstein is so qualified.

Q. (By Mr. Bruce) Mr. Goldstein, would you refer to Santa Fe's Exhibit 6A and discuss its contents for the Examiner and discuss the reason for the formation of the west-half spacing unit?

A. Okay. Exhibit 6A was prepared by myself. It is a net isopach of the Atoka "AD" sandstone, density porosity greater than or equal to 10 percent. It represents one of the potential pays within the Atoka formation.

As I'm sure the Examiner is familiar, there's

what Santa Fe calls the Atoka "AA", "AB", "AC", "AD", "AE", as well as the Atoka bank limestone. That represents six potential pays that are all within the Atoka, all within this particular area.

With respect to our Harroun 1-19 well, this is the main target that we hope to encounter in our proposed well. It is also the best producing Atoka zone within the surrounding area.

As you can see on the channel system -- And this is a fluvial channel sand. As you can see on the channel system just to the west of our location, the Delta Culebra Bluff unit in Section 23 has produced 15 BCF to date.

Just south of that in the same sandbar, the Pardue well, the Maddox Pardue, has produced 6.5 BCF. This is through the end of 1993. And further south of that you see a 4.5-BCF well and a 1.5-BCF well.

So production can be extremely good from this sand when you find it.

Q. And these figures you gave are solely for the "AD" sand?

A. These are solely "AD" sand production numbers.

That makes us excited about trying to drill a well for this horizon.

However, fluvial channel bar systems are also inherently very risky, and as such, there's an awful lot

more tests that are drilled than actually happen to find the thing. And that means that the project has considerable geologic risk. And as such, we're proposing to drill a location which hopefully will sit in the center of the sandbar that we hope to encounter.

And as you see, the channel system that I hypothesize to the east sort of mirrors what I've seen going on in the channel just west of it, sort of an analogous trend, if you will.

And we think, therefore, by staying within that 10-foot contour we hopefully maximize our chance of encountering that zone in productive quantities.

Q. As to the unorthodox location, that's primarily based on secondary zones, isn't it?

A. That's correct. In order to attempt to reduce geological risk -- and even though this zone has the same -- has more upside potential than any of the other zones, it's also the riskiest -- we've moved the location further south in order to help us reduce our risk in our bailout horizons.

Q. However, even for this zone you'd like to remain as close as you could to the center of this little -- this pod right here?

A. That's correct, that's where I believe we'll encounter the thickest sand.

Q. Okay. Why don't you move on to Exhibit 6B and discuss the secondary zone?

A. Okay. Exhibit 6B, also prepared by myself, is a gross clean Atoka bank limestone isopach.

The reason I have not prepared a net isopach is because net porosities within the Atoka bank limestone typically rarely exceed two percent, and therefore it is extremely difficult to prepare an isopach, and it is very questionable as to its validity for the net zone.

But this Atoka bank, we believe these are our highest possibility of a secondary zone. This, we believe, is our lowest-risk bailout that we should encounter at that location.

Q. Is production as good in this zone as it is from the "AD" zone?

A. Production isn't as good, and it's more widely scattered. There are numbers of wells that have encountered the zone in various thicknesses that do not have the permeability to produce.

However, there are some generalizations we can say about permeability in the Atoka bank, and that is, generally speaking, within this area the thicker interval you encounter, generally those contain better permeabilities.

For instance, if the Examiner will look at

Sections 17 and 20, the Amoco Teledyne well in Section 17 has produced 5.42 BCF through the end of 1993 and had 21 feet of total interval.

Just south of it, the Amoco Teledyne 1-20 has produced 1 BCF out of 18 feet of total interval.

And we believe there's just much better permeability associated to the north with a little bit thicker limestone, if you will.

And the attempt is, on our unorthodox location, to move a little bit further south, try to reduce our risk of having impermeable Atoka bank and hopefully move further south into a little thicker limestone development, while staying in the center of the proration unit on a north-south basis, in order to remain in the middle of the Atoka "AD" sandbar.

Q. Now, the direction you're moving, primarily to the south of Section 30, as Mr. Smith testified, that is, again, Texaco and Santa Fe Energy acreage; is that correct?

A. That's correct.

Q. Are there any other potentially productive zones?

A. Another -- I guess I would say my third most prospective zone would be the Atoka "AC" sandstone.

While the unit isn't highly underlain with that particular sand, geologically your chance of encountering sand does also thicken as you move further south.

I would anticipate at the proposed location, perhaps four or five feet of greater than ten-percent density porosity might be encountered in that "AC" zone as well, where it would be more on the order of one or two feet at the orthodox location if I was to move due north from that well spot.

Q. What about moving to the west? Would you also lose the "AC" sand in that direction?

A. That's correct.

Q. Looking back at your Exhibit 6A, the reason for the standup unit, you basically show that there's no "AD" zone in the east half of the section; is that correct?

A. That is my interpretation. You must realize that considerably further north of this exhibit and considerably further south, these trends parallel each other for a great distance, and I have no reason to think that that's going to vary through what's happening in Section 19.

And therefore the thick part of the sand or the presence of the sand should be oriented north-south, primarily within the west half of Section 19.

Q. What penalty do you recommend against Texaco if it gets -- if it goes nonconsent?

A. I would recommend a penalty of cost plus 200 percent.

The reason for that recommendation is, we're

dealing with a risky well, an expensive well, one in which Santa Fe takes considerable risk in drilling, and would like to hopefully, if we are successful, maximize our discovery, our economics.

Q. And in a deep well like this, there's always the chance of mechanical problems, isn't there?

A. Always as you go deeper.

Q. Were exhibits 6A and 6B prepared by you?

A. Yes, they were.

Q. And in your opinion, is the granting of this Application in the interests of conservation, the prevention of waste and the protection of correlative rights?

A. Yes, it is.

MR. BRUCE: Mr. Examiner, I move the admission of Santa Fe's Exhibits 6A and 6B.

EXAMINER CATANACH: Exhibit 6A and 6B will be admitted into evidence.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Goldstein, how did you map the channel limits of that sand?

A. Channel limits -- As you can see, this particular map here represents a porosity map only.

What we do find in a number of wells is, before

it develops density porosity greater than or equal to ten percent, you do again to get a little bit of gross interval developed.

So for instance, if we look at Section 31, there's two wells in that section. The Harroun Trust in Section 31 had a little bit of silty gross interval present, but of course no density porosity greater than or equal to 10 percent, as opposed to, say, the Texaco Malaga Harroun in the northeast quarter of Section 31, where there was no remnant whatsoever.

So using little -- minor sand indications, I was able to define an interval where I believe that the actual stream traveled through, and that would be what that channel limits would represent, where the actual water came through with some minor amounts of sand deposition occurred.

And then within that, of course, there will be thick spots or sweet spots where sandbars accumulated, and that's what I've attempted to depict in the west half of Section 19.

Q. Within the actual "AD" sandbody that you've mapped, did you have any well control at all to map that?

A. No, that's why I modeled my picture of what was going on in the eastern system by what I saw happening in the western system, because there is this striking

parallelism between the two trends, and I did that in order to try to reduce my geologic risk as much as possible.

It's essentially -- There's no production within a mile and a half to two miles surrounding that location, so it's essentially an extremely wild test for that target, and it's only the large reserve potential of that target that makes you want to take that risk and drill for that horizon.

Q. I assume -- Did you have much more information to map the Atoka bank?

A. The Atoka bank, since it's a more widespread horizon, I've shown a little -- I think one extra row of sections, just to show the additional well control helping to orient my trends.

The basic penetration numbers are the same between the two horizons. There's no -- The bank actually sits below the "AD".

Q. In a rank wildcat situation like this, do you believe that the difference between a standard location and your proposed location makes a whole lot of difference?

A. I believe that the amount of well control -- Let me explain it this way: The "AD" interval is very narrow in terms of it's just three or four miles wide, but a very long system. The Atoka bank, as well as the "AC", are much broader, more widespread horizons.

And therefore, there's more well control in a larger area that can help you predict where those particular intervals might be present.

And using that, I feel that you can more comfortably predict where you might have bank developed or "AC" developed than you can "AD".

So I would feel that while the unorthodox location doesn't make a lot of difference to the AD, I do believe regionally it does make a lot of difference in reducing risk for the bailouts, which help improve your economics and help justify drilling the well.

EXAMINER CATANACH: I see. I have nothing further of the witness.

MR. BRUCE: I have nothing further in this case, Mr. Examiner.

EXAMINER CATANACH: There being nothing further, Case 11,070 will be taken under advisement.

(Thereupon, these proceedings were concluded at 3:26 p.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the examiner hearing of Case No. 11070, heard by me on August 18 1994.

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 September 24th, 1994.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1994