STATE OF NEW MEXICO 1 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 2 3 OIL CONSERVATION DIVISION IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION 5 DIVISION FOR THE PURPOSE OF 6 CONSIDERING: CASE NO. 11079 7 APPLICATION OF SANTA FE ENERGY OPERATING PARTNERS, L.P. 8 9 REPORTER'S TRANSCRIPT OF PROCEEDINGS EXAMINER HEARING 10 BEFORE: Jim Morrow, Hearing Examiner 11 12 September 1, 1994 NOV ? 13 Santa Fe, New Mexico 14 15 This matter came on for hearing before the 16 Oil Conservation Division on September 1, 1994, at 17 Morgan Hall, State Land Office Building, 310 Old 18 Santa Fe Trail, Santa Fe, New Mexico, before Deborah 19 O'Bine, RPR, Certified Court Reporter No. 63, for the 20 21 State of New Mexico. 22 23 24 25

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13	PRODUCTION, INC.: F	
14	i	BY: WILLIAM F. CARR, ESQ.
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EXAMINER MORROW: Call the hearing back to order in Docket 25-94 and call Case 11079. This is the application of Santa Fe Energy Operating Partners for an unorthodox gas well location in Lea County, New Mexico.

Call for appearances.

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

MR. CARR: May it please the examiner, my name is William F. Carr with the Santa Fe law firm Campbell, Carr, Berge & Sheridan. I represent Texaco Exploration and Production, Inc., in this matter, and I have one witness.

EXAMINER MORROW: Will all the witnesses please stand?

(Witnesses sworn.)

MR. BRUCE: Mr. Examiner, I call Mr. Curtis Smith to the stand. Again, ask that the record could reflect that he was previously sworn and previously qualified as an expert petroleum landman.

CURTIS SMITH,

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

EXAMINATION

BY MR. BRUCE:

- Q. Mr. Smith, would you identify Exhibit 1 and tell us about the land ownership in your well unit?
- A. Exhibit 1 is a land plat outlining the well unit and marking the well with a red square.

 Santa Fe Energy's land is shaded yellow. In addition, the north half of the southeast quarter of Section 4 is a federal lease owned by Yates Petroleum and farmed out to Santa Fe. As a result, Santa Fe Energy is the only working interest owner in the south half of Section 4.
- Q. What type of leases are involved? You mentioned the federal lease owned by Yates. What is the other lease?
- A. The north half southeast quarter of Section 4 is a federal lease, which had an expiration date of March 31st of 1994. And the remainder of the south half of Section 4 is a state lease which expires September 30th of '94.
 - Q. What is the status of the federal lease?
- A. It is under suspension now. The letter granting suspense is my Exhibit 2.
 - O. Santa Fe's next witness will discuss the

process for obtaining and approving the APD, but will you please discuss why Santa Fe wanted to drill on the federal lease.

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- Α. Yes. Of course, for geologic reasons, but also we wanted to drill on the federal lease to the Morrow formation and hopefully obtain production from the Morrow formation for the south half proration unit. But if we were trying the Morrow formation, this area has Delaware potential, and we could complete a well in the north half, southeast quarter of Section 4 in the Delaware, which would cause our earliest exploration date lease, the federal lease, to be HBP. And at the time that we made our plans for drilling and so forth, back in February, when we filed the APD, we thought we would have time to establish whether or not there would be Morrow production, and, if not, we would have Delaware production. And then that would give us time to spud a well on the state lands prior to the September 30, '94, expiration date.
- That hasn't quite happened in that fashion, has it? 22
 - No, it hasn't happened that way. We filed That was approved in June, and therefore our APD. our lease was taken out of suspension. Then we

thought we could have administrative approval, but

Texaco objected to our location. Therefore, we're at

hearing today. Our lease otherwise would have

expired, this federal lease, August 31st, but the BLM

has stated that they'll put it back in suspension

until the expiration date of the state lease.

- Q. Referring to Exhibit 3, who are the offset operators to Santa Fe's well?
- A. Exhibit 3, the north half of Section 4,
 Texaco, Unocal, and Phillips. Texaco's lease covers
 Lots 2 through 4 in the southeast quarter of the
 northwest quarter.
- Q. Which operator is most directly affected, if at all, by Santa Fe's location?
 - A. Unocal is the direct offset lessee. Their lease covers the south half northeast quarter, as well as Lot 1.
- Q. Has Unocal voiced any objection to Santa

 19 Fe about the well location?
 - A. No, they have not.

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- Q. Couple other things. The north half -- 22 Section 3 to the northeast, that's Unocal?
- A. Oh, yes, the other offset owners, north
 half of Section 3. Our records and our takeoff
 indicates the southwest quarter of Section 3 is open.

Q. And that is state land?

- A. State lands. Southeast quarter of Section 5 is Santa Fe Energy. Northeast quarter of Section 8 is Pogo Producing Company and Marbob Energy Corporation, and northwest quarter of 10 is Maralo and David Pettinpoe, and the north half of Section 9 is Santa Fe Energy with the exception of the southwest of the northwest quarter. That's Maralo.
- Q. Is Exhibit 4 my affidavit regarding notice?
- A. Yes, it is. And Mr. Bruce notified offset owners for me because of the short time frame we were operating under.

MR. BRUCE: Mr. Examiner, for your information, right behind the affidavit there is a letter dated July 28, 1994. That was actually notice of the administrative application, and we notified every operator entirely around the unit, as required by the administrative rules.

And then later on, after Texaco objected, we renotified, and that's toward the back -- we renotified the people to the north, to the northeast, and to the east, and those operators or lessors were notified at that time of the specific hearing date.

EXAMINER MORROW: That complies with our

rules requiring notification just to the north.

MR. BRUCE: Just the immediately affected offsets, yes, sir. The southwest quarter of Section 3, as Mr. Smith stated, that's state lands. We could not tell whether it was leased or unleased, and so besides notifying the prior lessees, we notified the Commissioner of Public Lands also.

- Q. Finally, Mr. Smith, what is Exhibit 5?
- A. Exhibit 5 is a letter from the BLM to

 Texaco. Texaco had been the operator of north half

 of Section 4, which was communitized as to the Atoka

 formation; however, the communitization agreement,

 the north half of Section 4 terminated by the BLM

 effective February 12th of '94, and that's shown in

 the letter, Exhibit 5.
- Q. What is the date of last production from the Atoka well in the north half of Section 4?
- A. From the information that we have, it indicates March of 1991. And to our knowledge, Texaco has not conducted further operations to reestablish production from that well.
- Q. In your opinion, is the granting of Santa Fe's application in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes.

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- Q. Were Exhibits 1 through 5 prepared by you or compiled from company business records?
 - A. That's correct.

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

EXAMINER MORROW: 1 through 5 are admitted.

EXAMINATION

BY MR. CARR:

- Q. Mr. Smith, Santa Fe has two leases in the south half of Section 4; is that correct?
- A. Santa Fe has one lease, and we have a farmout from Yates, that's correct.
- Q. When did you acquire the farmout on the Yates interest in the north half of the southwest quarter?
- A. It seems like it's been -- the date of the farmout, I believe, was in March.
 - Q. Of this year?
- 20 A. Yes.
- Q. And the terms of that required that you go forward and commence the well within a six-month period of time, thereabouts?
 - A. We had a commencement date of August 15th, and I had to ask them to extend that to the 31st.

Now I'm going to ask them to extend it to September 30th.

- Q. When did you acquire your interest in the lease that you hold in the south half of Section 4?
- A. At the state land sale in '89, I guess, October of '89.
- Q. Is this the first well you've proposed on the acreage?
 - A. Yes.

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- Q. If I were to have questions concerning topographic conditions, are you the correct witness to ask about those?
 - A. Our engineer, drilling engineer.
- Q. All right. There was an administrative application filed in this case. If I were to have questions concerning the productive capabilities of the various tracts in the south half of 4, again, that should be directed to your engineering witness?
 - A. No, our geologist.
- Q. Are you aware of the Bilbrey unit, the working interest unit?
 - A. The Bilbrey working interest unit that --
 - O. That includes the north half of Section 4?
 - A. No.
 - Q. You're not aware that there is a working

interest there that is operated by Texaco?

- A. Oh, well, yeah, by virtue of the fact that there is a communitization agreement, I naturally presume that there is an operating agreement that creates a working interest in the north half of Section 4.
- Q. Your Exhibit No. 5, is that a notification that the Com agreement expired as to, what, the Atoka formation?
 - A. Yes.
- Q. Your primary objective in this well is the Morrow; is it not?
 - A. Our well?
 - Q. Yes, sir.
- 15 A. Yes.

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16 MR. CARR: That's all I have.

17 EXAMINATION

18 BY EXAMINER MORROW:

- Q. Mr. Smith, how does the suspension work that you talked about in this letter from the BLM, how does that work?
- A. The way that works, I can't remember -- 43

 CFR 31 something -- according to those rules and

 regulations put out by the BLM, you have to file your

 APD at least a month in advance of the exploration of

your lease. Or, in your words, if your lease expires March 31st, you have to file an APD in February.

Normally, the BLM should be able to process an APD in that time period. In this case, because of topographic reasons, the BLM could not approve our APD prior to the expiration date of the federal lease, which was March 31st.

So the lease is placed in suspension until the date, the first day of the month following the date that you receive an approved APD or your APD is denied.

- Q. Does that time frame include applications' approval from OCD also?
 - A. No.

- Q. Or just their approval?
- A. No, it's their approval. Now, I called Tony Ferguson at the BLM, told him what the situation was here, because our lease was actually taken out of suspension in June when we received the APD, which because of the dates -- and they outline it in their letter, my Exhibit 2, the way the dates fall -- caused our lease to expire August 31st of '94.

I explained the situation to him, told him that we have a September 1st hearing date, so naturally we're not going to be able to spud prior to

that date. And they said they would work with us and put the lease back in suspension. And we talked about the federal lease expiring October 1st or September 30th of '94, which will correspond with the state lease expiration date.

- O. So the state lease --
- A. Yeah, the rest of the south half of Section 4 is a state lease.
 - Q. Does the state have similar provisions?
- A. The state lease, you cannot get a state lease suspended. You have to spud --
- Q. You don't have a well spudded, you've lost; is that right?
 - A. That's correct.

EXAMINER MORROW: Thank you, sir.

MR. BRUCE: Mr. Examiner, I'm calling

Darrell Roberts to the stand. If we could have the record reflect that he was previously sworn and previously qualified as an expert drilling engineer.

DARRELL ROBERTS,

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

EXAMINATION

25 BY MR. BRUCE:

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- Q. Mr. Roberts, were you responsible for filing an APD for approval for this well?
 - A. Yes, I was.

- Q. Could you discuss the sequence of events, the chronology of events when you obtained approval for the well location? And I'll first refer you to your Exhibit No. 6.
- A. Okay. I'll just go by as it's listed on this memo. On February 2, 1994, we staked the well at 1,980 feet from the south line and 1,980 feet from the east line of Section 4. And then on February the 25th, we submitted our APD to the BLM.

Then on March the 17th of 1994, I received a call from Kathleen Rohrbach. She said that she and a wildlife specialist had been to the location, and that our staked location was too near Buffalo Wallow or playa lake, and that there was also a raptor's nest or a bird of prey's nest in the mesquite trees located within the playa, and that she asked that we move the location to 2,310 from the south line and 1,800 feet from the east line in order to avoid the playa.

She also asked that we delay the construction until after July 15 until the nesting of the raptors, the birds had left the bird nest.

- Q. The birds had flown the nest?
- A. Right, hatched their young. On March the 21st, we restaked the well at 2,310 and 1,800 feet from the east line. Then on April 24th, we submitted a sundry notice to move the unorthodox location. And then on June the 23rd, we received an approved APD from the BLM.
 - O. What is Exhibit 7?

- A. Exhibit 7, the first page is a plat of our moved location, the unorthodox location. The second page is a topo map that I've highlighted in yellow the playa lake where we had it staked originally.
- Q. And that's what caused the several hundred foot move?
- A. Yeah. We moved it 376 feet. And we moved it up there, and you can see that from this topo map also, there's other playa lakes in that area. And all the other things are plats related to this staking of the well.
- Q. And then once you received the BLM approval, because it was unorthodox at the BLM's request, then you had to apply to the OCD for approval?
 - A. Right, exactly.
 - Q. And this whole procedure has resulted in

17 the fact that you're now up against lease expiration 1 2 deadlines in both cases? 3 That's true, as Curtis Smith testified earlier. 4 5 In your opinion, is the granting of this Q. 6 application in the interests of conservation and the 7 prevention of waste? Α. 8 Yes. And were Exhibits 6 and 7 prepared by you 9 Ο. or under your direction? 10 Yes, they were. 11 Α. 12 MR. BRUCE: Mr. Examiner, I move the admission of Santa Fe's Exhibits 6 and 7. 13 EXAMINER MORROW: 6 and 7 are admitted. 14 EXAMINATION 15 BY MR. CARR: 16 Mr. Roberts, you originally proposed the 17 Q. well at the standard location; is that correct? 18 19 Α. Yes, we did. You've had to move it for playa lake? 20 Q. 21

- Yes, sir. Α.
- And also because of raptors nesting in the 22 Q. 23 area?
- 24 Α. Yes, sir.

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Did you still have to move it to avoid the Q.

raptors, or is that something that's over because the nesting season is over with?

- A. No, because the raptors have left the nest, then that's gone away.
- Q. When the location was proposed to you, 2,310 from the south and 1,800 from the east line, did you talk to the Bureau of Land Management about alternative locations, or did you just accept that proposal?
- A. No, I've discussed different alternatives, and this is the only one we could come up with that they would accept.
- Q. They weren't interested in letting you move it either to the east or to the west?
- 15 A. No.

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- Q. You were involved in the preparation and filing of the administrative application, were you not?
- 19 A. Yes.
 - Q. In that application, it represents that the southwest quarter of the southeast quarter is as prospective as the drill site. Are you aware of that?
 - A. No, I'm not. On the APD?
- Q. On the application for administrative

approval that was filed by Mr. Bruce on July 28, 1994, paragraph 6 reads: "The primary target of the well is the Morrow formation. The Morrow formation in the southwest of the southeast is as prospective as the northwest of the southeast." Do you see that?

- A. Yes. I wasn't involved with that. I thought you meant the APD.
- Q. Would you be the person I would question about whether or not that 40 acres is as prospective as the real site?
 - A. No.

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- Q. Who would I ask?
- A. Probably David White.
- Q. That's the problem with being the last witness, isn't it?
 - A. Pass the buck.
- Q. All right. Did you consider or explore with the Bureau of Land Management locating this well at any time in the southwest of the southeast of this section?
- A. Southwest of the southeast. No. We talked about the areas that we could put the well in. They've got the pipelines and the fences and the playa lakes that all entered into the decision.
 - Q. But you were at all times planning to

place the well on the federal lease, were you not?

A. Right.

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- Q. Is it fair to say that you didn't really consider a location in the southwest of the southeast?
 - A. For me, from my standpoint, that's true.
- Q. Have you as an engineer made a study of the Morrow production in the area?
 - A. No, I haven't.
- Q. You don't know if it's better to the north or the south or at all?
- 12 A. No. I'm a drilling engineer.
- Q. Do you know what the standard setbacks are that are required for wells on a 320-acre unit?
- 15 A. Yes.
- Q. What would they be?
- A. 1,980 from the ends and 660 from the sides.
- Q. So you're proposing to be 330 from the south; isn't that right?
 - A. Yes, sir.
- Q. So you're only half a setback as required by the standard rules?
- A. Right.
- Q. And you have no opinion as to the drainage

or any of those aspects of this application? 1 2 Α. No. If I understand your testimony, it is that 3 Q. in the north half of the southeast quarter of Section 4 5 4, this is the only location the BLM would approve? 6 Α. Yes, sir. 7 MR. CARR: That's all I have. Thank you, 8 Mr. Morrow. 9 EXAMINATION BY EXAMINER MORROW: 10 Do you know if those raptors come back to 11 12 the same nest next year? Α. I don't know. 13 EXAMINER MORROW: Thank you. 14 15 THE WITNESS: I quess we'll just have to build a new one. 16 17 EXAMINER MORROW: I guess you'll have to move the mesquite tree. 18 19 DAVID WHITE, the witness herein, after having been first duly 20 sworn upon his oath, was examined and testified as 21 follows: 22 23 EXAMINATION 24 BY MR. BRUCE: Would you please state your name for the 25 Q.

record.

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- 2 A. My name is David White.
 - Q. Who do you work for and in what capacity?
 - A. I am a senior petroleum geologist with Santa Fe Energy, residing in Midland, Texas.
 - Q. Have you previously testified before the Division?
 - 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 involved in this case?
- 14 A. Yes, I am.
- Q. And this is your prospect?
- 16 A. Yes.
- 17 MR. BRUCE: Mr. Examiner, I tender Mr.
- 18 White as an expert geologist.
- 19 EXAMINER MORROW: We accept Mr. White.
- Q. (BY MR. BRUCE) Mr. White, would you refer to Exhibit 8 and describe the structure in this area?
- A. Exhibit 8 is a structure map on top of the
- 23 Lower Morrow, which is above our prospective zone.
- 24 It's also a very good marker for the area.
- On this map is our proposed location.

That's the red square. In red is the cumulative production from the Morrow from the wells in this area.

The contours, as I said, are on the Lower Morrow, and they indicate by my interpretation a nosing or a high at our proposed location in the northeast of the southeast.

- Q. So it might give you a slight structural advantage?
- A. Yes.

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- Q. There's also a cross-section marked on this map?
- A. Yes, also a cross-section, A-A', which is 14 Exhibit 9.
 - Q. Okay, why don't you go back to Exhibit 9.
 - A. The north-south cross-section. Through the area, it comes from a well to the south, through our proposed location, through the -- Texaco, originally Getty Bilbrey 4 Fed Com #1 Well, and then on into what is known as the Bilbrey field, and highlighted in yellow is the prospective sands, the E and F sands in this area, Middle Morrow sands.
 - Q. Those are the two main sands you're looking at?
 - A. Those are the two main sands.

Q. How about moving on to Exhibit 10 then and discussing the Middle Morrow a little bit more in detail?

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A. Exhibit No. 10 is a net sand map for the E and F sands. My interpretation are two distributary fluvial sands, channels. The sands have been deposited in the channel, which prograded from the north. Those two channels merged in approximately Sections 33 and 34. And by my interpretation, that channel proceeded down to the south, and as I interpret, the thicker part of that channel will be in our prospect.

It's important in this area to be in the thicker part of the channel sands. Because of the risk in the Morrow, particularly in the Middle Morrow, you try and be in the thickest and hopefully the most porous portion of the channel.

- Q. Are the Morrow channel sands inherently risky?
 - A. Inherently risky.
- Q. Why did you propose a location 1,980 feet from the south and east line, please.
- A. Two reasons. The first because I feel, and I believe the geology indicates, and the knowledge of the Morrow is that, because of the risk,

the further north I am, that is, towards the better production, the better off we are. So for our 320, the northeast portion is our best location. As you can see, as you go to the west, you lose thickness.

In addition, that was a standard location.

- Q. Mr. Carr brought something out about the administrative application where I filed a letter stating that the southwest quarter of the southeast quarter was as prospective as the northwest quarter of the southeast quarter. Did I speak with you before filing and preparing that letter?
 - A. No.

- Q. So perhaps an attorney got something wrong there?
 - A. Oh, I'd never say that.
- Q. Do you believe that the well should be located in the northwest quarter of the southeast quarter as opposed to further south?
- A. Yes. As you move towards the south, you increase the risk. And in order to reduce that risk, the further north we stay, the better our opportunity to have an economic well.
- Q. Why don't you move on to your Exhibit 11, and maybe this will clarify that point?
 - A. Exhibit 11 is an isopach map of the

porosity greater than or equal to 6 percent in the E and F zone. It's my feeling and from the experience particularly in this area and at this depth, we're looking at drilling a well to 15,200 feet, we're looking at an interval between 14-4 and 14-6, that you need at least 6 percent porosity to -- I used that as my productive interval.

In addition, all of the wells labeled in red on this map have produced or are producing from the E and F interval.

One of the main reasons why we need to be on the eastern side of our proration unit is the Bilbrey well, that's the Getty, now Texaco well as you see on the structure where I have the cumulative production. That well only made 100 million, whereas wells to the north have been considerably better producers.

- Q. So even if things are, as you put them in your Exhibits 10 and 11, you're still stepping up substantially from existing production?
- A. We're stepping up approximately a mile from reasonable production.
- Q. And so the further south you go, the more you increase the risk?
 - A. The more we increase the risk and the

potential that this sand could have shifted more towards the east instead of north-south.

- Q. Are there any other potential zones in this well?
- A. There is potential in the Atoka and particularly potential in the Delaware.
- Q. Are these little black dots the oil wells to the south of those primarily Delaware?
- A. The wells, the little black dots to the south is the Livingston Ridge East Field, which is a Delaware Upper Brushy Canyon Field, yes.
- Q. If the Division grants approval of this well location, do you think any penalty should be assessed against production from this well?
- A. No, I don't. Our location was dictated by the BLM rather than where we would have preferred to drill. We have expiring leases, which put us in jeopardy, and as well a penalty would unduly and adversely, I believe, affect our economics as far as drilling a well.
- Q. So adding a penalty would make a risky well that much riskier?
 - A. Exactly.
- Q. It would be tough to gain management approval?

A. Yes.

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- Q. In your opinion, is the granting of Santa Fe's application in the interest of conservation, the prevention of waste, and the protection of correlative rights?
 - A. Yes.
- Q. Were Exhibits 8 through 11 prepared by you or under your direction?
 - A. Yes, they were.

MR. BRUCE: Mr. Examiner, I move the admission of Santa Fe's Exhibits 8 through 11.

EXAMINER MORROW: 8 through 11 are admitted.

14 EXA

EXAMINATION

- 15 BY MR. CARR:
 - Q. Mr. Dill, is that right?
- A. White.
 - Q. Mr. White. Mr. Bruce does this to me; he changes names on me. If I look at your Exhibit No. 8, your first exhibit, if I understood your testimony correctly, there is no dispute in this case that the better Morrow production -- the Morrow production improves as you move to the north from the proposed location?
 - A. That's correct.

- Q. And if we get a couple of sections farther north, we get 5 Bcf wells, and there's just a stepping down of the ultimate recovery of these wells as they move toward the location?
- A. From the entire Morrow section, that's correct.
- Q. If we go to the cross-section, the yellow lines across the section basically show that the sands in the Morrow extend from the tracts to the north, and if your interpretation is correct, they extend south and through your proposed location?
 - A. That's correct.

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- Q. If we go to Exhibit No. 10, this is your isopach map. If I look at this isopach map, it looks to me like the southwest of the southeast is as prospective, if we use this as a gauge, as the acreage under the drill site; is that not correct?
 - A. Assuming that you have no changes, yes.
- Q. And this shows the general Morrow channels that run through the area generally north-south over the area of interest?
 - A. As I interpret it.
- Q. You testified that with the Morrow, you really don't know what you get, I guess, until you get there; it's a very risky, just generally a risky

formation. Is that a fair characterization?

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- A. It's a risky formation; however, it can be very productive.
- Q. And so with the well that you're proposing, you're really not going to know how good a well you have until you actually get to the Morrow formation and complete there?
 - A. No, right, you never do.
- Q. And if you have a good well in the Morrow, it's fair to assume that it would in fact drain the 320 acres that you're going to dedicate to the well; isn't that right?
 - A. Hopefully, yes.
- Q. The well at your location is 50 percent closer to the acreage in the north half of Section 4 than allowed by the rules; is that fair?
 - A. That's true.
- Q. By doing that, isn't it also fair to assume that you're extending the drainage area to the north by moving the well to the north?
 - A. Possibly, yes, it is.
- Q. You really won't know how much drainage until you get your well done?
 - A. That's correct.
 - Q. And so by going at this location as

opposed to a standard location, in fact, you may capture ultimately more reserves in the north half of the section than at the standard location?

A. That's possible.

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- Q. Again, if I go to Exhibit No. 11, I guess it's because there's no honor among thieves and lawyers are just like that, but in defense of Mr. Bruce, if I look at this exhibit, the southwest of the southeast, again, if this interpretation is correct, it does look as prospective as the proposed location?
 - A. That's true.
- Q. Now, if we talk about a penalty, you recommend no penalty because the location was dictated by the BLM?
 - A. That's one reason, yes.
- Q. And as I understood prior testimony, there was no effort to locate this anywhere other than on this federal lease that's under this Yates farmout; is that right?
 - A. That's correct.
- Q. If you had proposed and located the well in the southwest of the southeast, you wouldn't be encroaching on acreage to the north; isn't that right?

A. That's true.

- Q. And no matter what the reason is for the well being only 330 from the lease line, it is closer and can drain more from the north because of that; isn't that right?
 - A. That's true.

MR. CARR: That's all I have. Thank you very much.

EXAMINATION

BY EXAMINER MORROW:

- Q. Mr. White, the cumulative production shown are not tied to any dates, completion dates or abandonments? That's just what happened to make up to that now, or how does that tie in with completion?
- A. That's what is made up to my most recent information I pulled off of Dwight's, which would have been April.
- Q. These wells on the south, were they completed about the same time as the wells to the north or later or sooner?
- A. No. The one well to the south in Section 15, is that the one you're referring to?
 - Q. There's one in 34 and one in 4, those two I guess.
 - A. There's a couple of things. The well in

34, the well in the south half of 33 -- the well in 34 was completed just a little over two years ago.

It's producing out of the E and F sand and the Lower Morrow only.

The two wells in 33, the south one which has no number by it, is a recent completion. The well in 33 was originally an E and F producer, but it, as in many of the wells in the northern part, the larger producers, are actually producing out of an Upper Morrow sand.

Many of those wells went into competition in that Upper Morrow sand, and they closed off those lower Middle Morrow sands.

- Q. How about the well in Section 4?
- A. The well in Section 4 was originally completed in the E and F zone. It only made 100 million. It has, as you see on the net porosity map, it only had 16 feet of porosity. It has low porosity and was apparently, by interpretation, to have been a low permeability well. It was then recompleted to the Atoka.
 - Q. Essentially depleted in the E and F?
 - A. Yes.

Q. Let's see, did you or Mr. Roberts say you looked at a location further south in the northwest

of the southeast on the federal acreage? 1 Did you 2 look at anything further south on that federal 3 acreage? 4 Α. Yes, they did. 5 MR. BRUCE: Mr. Examiner, they had looked 6 at one 1,980, 1,980. 7 EXAMINER MORROW: Yes, I remember that one. That would have been on the federal acreage. 8 THE WITNESS: 9 Right. EXAMINER MORROW: That one was. 10 THE WITNESS: That one is where the sink 11 12 hole is or the playa lake. (BY EXAMINER MORROW) Is the opportunity Q. 13 to produce from the Delaware based on these spots to 14 the south of your location, or is there some more 15 Delaware nearer? 16 It's based mainly on the sands in the Α. 17 Livingston Ridge East Field down to the south, 18 although there are shows in the lower part of the 1.9 Delaware in the wells to the north. That is, in 20 wells in 33, 34, 28. 21 22 Q. In those Morrow wells? In those Morrow wells, yes, sir. 23 Α. But there's no production up there? 24 Ο. 25 It's all in the Morrow. Α. No.

1 EXAMINER MORROW: All right, thank you 2 sir. I appreciate it. 3 MR. BRUCE: We have nothing further in this case, Mr. Examiner. 4 5 EXAMINER MORROW: Okay. Thank you. 6 MR. CARR: At this time I would call Mr. 7 Terry McCants. TERRY McCANTS, 8 the witness herein, after having been first duly 9 sworn upon his oath, was examined and testified as 10 follows: 11 EXAMINATION 12 BY MR. CARR: 13 Mr. McCants, would you state your name for Q. 14 the record, please. 15 16 My name is Presley McCants. 17 Q. Where do you reside? Α. I live at 4205 Russell Drive, in Midland, 18 Texas. 19 By whom are you employed? 20 Q. I'm employed by Texaco. 21 Α. What is your current position with Texaco? 22 Q. I'm a geologist for Texaco. Α. 23 Have you previously testified before this 24 Q. Division? 25

A. Yes, I have.

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- Q. At the time of that testimony, were your credentials as a petroleum geologist accepted and made a matter of record?
 - A. Yes, they were.
- Q. Does your geographic area of responsibility with Texaco include the area which is the subject of this application?
 - A. Yes, it does.
- Q. Are you familiar with the application filed in this case by Santa Fe and the proposed well?
 - A. Iam.
- Q. Are you prepared to make certain recommendations to the examiner concerning this application?
 - A. Yes, I am.
- MR. CARR: Are the witness's
- 18 qualifications acceptable?
 - EXAMINER MORROW: Yes.
- Q. (BY MR. CARR) Mr. McCants, would you just briefly state what Texaco seeks in this case?
 - A. Texaco requests that the application filed by Santa Fe be denied. And if the application is approved, Texaco seeks a 50 percent production penalty down the pipeline.

- Q. Mr. McCants, if we go to Section 4, the section at issue in this case, who operates the north half of that section?
- A. Texaco is operator of the Bilbrey unit, which the north half of Section 4 is included in.
 - Q. And that is a working interest unit?
 - A. Yes, it is.

- Q. Let's go to your Exhibit No. 1. Could you identify that for Mr. Morrow?
- A. Exhibit 1 is a photocopy of a map that I made in early '93 and updated after the drilling of the Bilbrey 33 Federal No. 2, which is in the south half of 33.

The map is a structure map on top of the Morrow Clastics, and it shows basically regional dip to the southeast and a well spot for Santa Fe which is located 2,310 off the south line and 1,800 feet off the east line.

It also shows, the dark splotches are the Morrow producers, and, as Mr. White testified earlier, production does increase substantially to the north, the north half of 33, 32, and Section 28.

- Q. Basically, we don't disagree with the presentation of Mr. White?
 - A. No. We think that's quite accurate.

Q. What control is available to any of you who are trying to map the Morrow in Section 4 and south of there?

A. Of course, the obvious control to the north, but to the south the control is very limited. As shown on some of the previous exhibits, several miles away is the nearest point of control.

Some of the sands in Boot Leg Ridge, several sections south, do appear to show stratigraphically equivalent sands in the Morrow to the Bilbrey, the Middle Morrow and the Bilbrey pay. So it is possible that additional sands could be encountered at their unorthodox location.

- Q. If, in fact, the well is drilled at their proposed location, and they have a good Morrow producer, what impact could this have on the Texaco-operated property in the north half of Section 4?
- A. There would be substantial drainage in the north half of Section 4.
 - O. What does Texaco then recommend?
- A. We recommend that the application be denied. It does appear that a legal location could be pursued in the southwest of the southeast quarter section, Section 4.
 - Q. If the application is granted, what do you

recommend?

- A. We recommend that a 50 percent production penalty be assessed, based on the well's ability to produce down a pipeline. Basically, the penalty would reflect the drilling of the well 50 percent too close to the unit boundary.
- Q. Due to the nature of the Morrow, as discussed by Mr. White, would any other factor, in your opinion, be an appropriate way to impose a penalty on a Morrow well at an unorthodox location prior to it being drilled?
- A. Based on the unpredictability of the Morrow and the limited control to the south, I see any other means for assessing a penalty would be speculative.
- Q. If the penalty impacts the economics of the well, based on your understanding of the application, there would be a legal location available to Santa Fe that they could then move their well to?
- A. I believe at this point there would be one to pursue, yes.
 - Q. Was Exhibit No. 1 prepared by you?
 - A. Yes, it was.
 - MR. CARR: At this time, Mr. Morrow, we

40 move the admission of Texaco Exhibit 1. 1 2 EXAMINER MORROW: Exhibit 1 is admitted. 3 MR. CARR: That concludes my examination of this witness. 4 5 EXAMINATION BY MR. BRUCE: 6 7 Mr. McCants, I think you said you agree 0. 8 that the Morrow is very risky? 9 Α. Yes, it is. 1.0 And you talked about unpredictability to the south. There's very little well control down there, isn't there? 1.2 Α. That's correct. 1.3 Q. So the further south you move, the greater 1.4 the risk is? 1.5 16 A. Based on the well control that we have, 1.7 that is correct. Q. You talked about drainage. Have you 1.8 personally conducted any Morrow drainage studies in 1.9 this area? 20 No, I have not. 21 Α. What is the name of the Texaco well in the Q. 22 23 north half of Section 4? A. It's the Federal Com No. 1, Getty Federal 24

Com No. 1.

- 1 Q. When was that well drilled?
- A. Oh, gee, I don't recall.
 - Q. The 1980's?

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- A. The 1980's vintage.
- Q. When did it last produce?
- A. Oh, gee. Probably not over the past year, in the Atoka.
- Q. Do you see Santa Fe's Exhibit 5, the letter from the BLM that stated it hadn't produced since March '91?
- A. Yeah, I hadn't seen that. That was sent to a field engineer, but I wouldn't argue against that fact, no.
 - Q. Has Texaco done anything since March of '91 to bring this well back on production?
 - A. I submitted a workover request to perforate the Atoka that they were reviewing pending the drilling of our well in the south half of 33, hoping that maybe the Atoka sands would thicken. They did not, and as far as I know, they're still kind of waffling with that, whether they want to pursue it or not.
 - Q. So to the best of your knowledge, in the last three and a half years, no work has been done on the Fed Com No. 1 well?

- A. That's correct.
- Q. One final question. If Texaco had a well in this area assessed a 50 percent penalty, would it drill the well?
 - A. Probably not.

 $$\operatorname{MR}.$$ BRUCE: I have no further questions, ${\operatorname{Mr}.}$ Examiner.

EXAMINER MORROW: All right, sir.

EXAMINATION

BY EXAMINER MORROW:

- Q. Mr. McCants, if a penalty were imposed, you say down the pipeline, I assume that's deliverability into the pipeline. Would that be on a one-day basis or 30 days, or how would you propose that that be calculated?
- A. I would say more than a day and 30 days would be acceptable to Texaco.
- Q. If a penalty were imposed, would you propose that that be a penalty against the initial producing capacity of the well, and that that be the end of the penalty, or would you want to keep on penalizing as the capacity declined?
- A. I would say that half of the ability of the well to produce.
 - Q. Initial producing capacity?

- A. Well, as it declined, then I'm sure that Texaco would be willing to --
 - Q. Forego that?
 - A. Yeah.

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- Q. Do you all have any plans for Morrow development in the north half of Section 4, maybe the northeast quarter?
- A. Presently, we don't, and that would not say that at some point in time we would come back and drill a well there pending some offset activity and see how well our well in the south half of 33 performs. That was completed in April of this year.
- Q. But this penalty you're proposing would be against Morrow production; is that correct?
 - A. That's correct.
- Q. And you feel that that would be depleting your Morrow reserves, which you may or may not decide to drill for?
 - A. That's correct.
- EXAMINER MORROW: Does anybody have anything further?
- MR. CARR: I'd like to make a very brief statement, with your permission.
- EXAMINER MORROW: All right.
- MR. CARR: Mr. Morrow, you have a case

before you today that talks about everything but really the issue before you. We've talked about raptors, we've talked about sinkholes and roads, but the question before you is one of drainage and well spacing, and well spacing and setbacks are rooted in concepts of drainage. They're designed to keep people from encroaching on their neighbor in a way that will result in one party gaining an unfair advantage on the other.

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Santa Fe is before you today, and they have a problem. The BLM says, "You need to drill here if you are in that 40-acre tract," but there is other acreage, and there are other standard locations available to them that their exhibits and their attorneys say are equally prospective. That's the reason we ask you to deny the application.

If you approve the application, we're talking about the Morrow. We're not going to know what we have until we get there. They're 50 percent closer to us than they should be, and if they get a good well there, they will have gained a substantial advantage. The Morrow is an unusual character, and there are a lot of ways we could try and construct a penalty, but we've picked the only thing we really know before you spud the well, and that is how much

too close they are to us.

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For that reason, we've asked you to do what the statute authorizes you to do, set a penalty to offset the advantage they are gaining on us as the offseting operator and impose a penalty on their well, if they drill this location, equal to 50 percent of the ability of that well to produce into the pipeline.

MR. BRUCE: I'll be short also, Mr. Examiner. Santa Fe wanted a standard location. The BLM said no. It's drilling at as close to a standard location in that particular quarter-quarter section as the BLM will allow. And this whole procedure at the BLM caused timing problems. Now Santa Fe may be unable to get an approved APD anywhere in the unit before the end of September, and that will cause loss of leases if the wells are not drilled and a substantial economic harm to Santa Fe.

As Mr. White said, we still need to drill in the northwest quarter of the southeast quarter for geologic reasons in order to lessen the risk to an acceptable level. Everybody agrees, these Morrow sands are inherently risky.

Texaco has a remedy. They can go drill a well in the north half. It has had a well there for

years. It has failed to rework its existing well for 1 three and a half years. Furthermore, Texaco seems to 2 be admitting it will only drill a well in the north 3 4 half if Santa Fe is successful in the south half. don't think there's any impairment of correlative 5 rights whatsoever. Why didn't it act years ago? 6 7 We don't believe there's any reason for a If anything, Santa Fe will help prove up 8 penalty. 9 Texaco's acreage in the north half of Section 4, and 1.0 we request approval of this well location without 1.1 penalty. Thank you. EXAMINER MORROW: Thank you. And I need 1.2 to ask one more question of Santa Fe. 1.3 MR. BRUCE: Sure. 1.4 EXAMINER MORROW: And I'll ask all three 1.5 of you, and whoever wants to can answer. Did you 1.6 consider a directional well in this situation as you 1.7 did in the previous case? 1.8 MR. ROBERTS: No, sir. 1.9 MR. SMITH: No. 20 EXAMINER MORROW: Anything further? 21 Case 11079 will be taken under 22 advisement. We'll adjourn for the day. 23 24 25

CERTIFICATE OF REPORTER 1 2 3 STATE OF NEW MEXICO 4 SS. COUNTY OF SANTA FE 5 6 I, Deborah O'Bine, Certified Shorthand 7 Reporter and Notary Public, HEREBY CERTIFY that I 8 9 caused my notes to be transcribed under my personal supervision, and that the foregoing transcript is a 10 true and accurate record of the proceedings of said 11 hearing. 12 13 I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys 14 involved in this matter and that I have no personal 15 interest in the final disposition of this matter. 16 WITNESS MY HAND AND SEAL, October 31, 17 18 1994. 19 20 DEBORAH O'BINE 21 CCR No. 63 I do hereby certify that the foregoing is 22 a complete record of the proceedings in the Examiner hearing of Case No. 11079. 23 heard by melon \$9-1 24 , Examiner 25 Oil Conservation Division