STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF:	)	
	)	
THE APPLICATION OF C.W. TRAINER	)	
FOR DIRECTIONAL DRILLING AND AN	)	CASE NO. 10137
UNORTHODOX GAS WELL LOCATION,	)	
LEA COUNTY, NEW MEXICO.	)	
	)	

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: JIM MORROW, Hearing Examiner

November 28, 1990
8:15 a.m.
Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on November 28, 1990, at 8:15 a.m. at Oil Conservation Division Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Deborah LaVine, RPR, Certified Shorthand Reporter No. 252 and Notary Public, in and for the County of Santa Fe, State of New Mexico.

FOR: OIL CONSERVATION DIVISION

BY: DEBORAH LAVINE, RPR
Certified Shorthand Reporter
CSR No. 252

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November 28, 1990
Examiner Hearing
Case No. 10137

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A P P E A R A N C E S

BEFORE: JIM MORROW, Hearing Examiner

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Oil Conservation Commission
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Attorneys at Law
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** * **

EXAMINER MORROW: Call for appearances.

MR. CARROLL: Mr. Examiner --

MR. STOVALL: Let me give the call of the case first, Ernie, please.

MR. CARROLL: Oh, okay. Excuse me.

MR. STOVALL: It'll be 10137, application of C.W. Trainer for directional drilling and an unorthodox gas well location, Lea County, New Mexico.

EXAMINER MORROW: Now we'll call for appearances.

MR. CARROLL: Mr. Examiner, my name is Carroll of Losee, Carson, Haas & Carroll, appearing here on behalf of C.W. Trainer, the applicant.

MR. STOVALL: How many witnesses do you have, Mr. Carroll?

MR. CARROLL: Mr. Examiner, I have three witnesses. They went down to get one of them out of the coffee shop, and they'll be right here.

MR. STOVALL: As soon as they show up, we'll swear them in.

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of Kellahin, Kellahin & Aubrey, appearing on behalf of Oryx Energy Company to enter our appearance and to waive any objection. We're an offsetting operator and as soon as the copy machine warms up, I will make copies of the waiver and submit it for the record.

(THEREUPON, a discussion was held off the record.)

MR. STOVALL: Do you want to go ahead and swear them in so we can get started with Mr. Trainer.

C.W. TRAINER

the Witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CARROLL:

Q. Would you please state your name and address for the record.

A. My name is C.W. Trainer, 526 Sandy Mountain Drive, Sunrise Beach, Texas.

Q. Mr. Trainer, you are the applicant in this cause number 10137, are you not?

A. Yes, I am.

Q. And would you please state briefly what you're seeking from the commission?

A. I'd like to drill a well.

Q. And basically what kind of action do you need the commission to do to enable you to drill this well?

A. To be more specific, I have a well and it didn't produce. And the bottom of it needs to be a quarter of a mile east to get into the gas sand. And so we want to mill a window in the pipe about 9,000 feet and then directionally drill to put the bottom of it a quarter of a mile east of

where it is now.

Q. And so what you're doing is seeking an exception to the well location requirements of Rule 104?

A. True.

(Applicant's Exhibit No. 1 was marked for identification.)

Q. Now, Mr. Trainer, you have prepared Exhibit 1, a land plat, have you not?

A. Yes, sir.

Q. Would you please describe what is depicted on this land plat for the examiner.

A. My acreage --

MR. STOVALL: Just a minute, Mr. Trainer.

(THEREUPON, a discussion was held off the record.)

MR. STOVALL: I'm sorry. Go ahead, Mr. Trainer.

A. My acreage involved in this project is Section 5 and 6, two sections of federal acreage. There are three federal oil and gas leases involved as shown on this ownership map, a 40-acre lease where the old well is in the southwest of the southeast of Section 5. A quarter section lease in the east half east of Section 5 was a KGS lease, and the big 1080-acre lease is the balance of the acreage. 14004 is the federal number.

EXAMINER MORROW: Excuse me just a minute. That's the southeast of the southeast?

THE WITNESS: The service location of the well is the southwest of the southeast.

EXAMINER MORROW: The red spot then --

THE WITNESS: Is the target. That's where we need to be There may be a fault between the gas field and the original well over there as indicated on some Oryx exhibits at their hearings for drilling the two wells on Section 9.

(Applicant's Exhibit No. 2 was marked for identification.)

Q. (By Mr. Carroll:) Mr. Trainer, you have given notice to all the offset operators as required by commission rules, have you not? And isn't Exhibit 2 then the certificate of compliance with those requirements of notice?

A. Yes, it is.

Q. Exhibit A to that certificate, Exhibit 2, lists six offset operators; is that correct?

A. That is correct, yes.

Q. Now with respect to these offset operators, have you had any conversations with, starting with the bottom, Exxon Company?

A. I haven't said anything to Exxon, no.

Q. Exxon contacted you after the notice was sent to them?

A. No, not unless you got it at your office.

Q. Okay. Kaiser Francis, you've received a waiver,

have you not, and we will present that as an exhibit?

A. Yes, they gave us a waiver.

Q. Yates Petroleum, you have contacted them and though they have not submitted a waiver, since I represent Yates also, then you have an agreement with them that they won't?

A. They said they wouldn't oppose us, no.

Q. BTA, you've had no contact from them, have you?

A. No, but they're not an operator of record, but they don't have energy in those wells in Section 9.

Q. And Oryx Energy, Mr. Kellahin has made an appearance and has presented a waiver. I believe he presented one.

MR. STOVALL: We have copies. You can get a copy.

MR. CARROLL: All right.

Q. (By Mr. Carroll:) They have waived their appearance, I mean, waived objection to this application, have they not?

A. I believe so, yes.

Q. And Hadson Petroleum, that interest is now controlled by LANO, is it not? It is a subsidiary of --

A. Hadson bought LANO. It was LANO originally.

Q. And you have entered into an agreement with them, though we do not have a waiver?

A. Yes, Mike McGinley was supposed to be here. Is he? I wanted to meet him.

Q. They were supposed to show up, but that was our last word.

A. But he said no objection. They have other interests in the area, and I don't think there's any problem with Hadson.

(Applicant's Exhibit No. 3 was marked for identification.)

Q. Now as Exhibit 3, we will present the waiver that Kaiser Francis has given us. Exhibit 3 is the waiver as executed by Kaiser Francis, is it not?

A. Right.

Q. Now, Mr. Trainer, could you give us a brief history of this well. This well was not originally drilled. Could you explain to the commission how you obtained it and what happened with the initial drilling and attempts at completion of this will?

A. The 40 acres was drawn in the lottery by Larry Harris's wife in Roswell, and Larry farmed it out to L&B Oil Company of Houston, who drilled the well, and about eight years ago, I believe. And it didn't make a well. And Larry got it back, and I got it from him.

Q. This well was originally drilled to the Morrow sand, was it not?

A. Yes, they drilled to 14,050, and to the Morrow sand, they had considerable trouble with it and really didn't

conclusively test the sands. They didn't establish it. To my mind, it's really not productive. But it's a pretty low well, and I'd rather get over there and hire them.

Q. Now the wells in this area -- well, excuse me. Let me rephrase that question. You are seeking to directionally drill this well so as to test the Morrow sand but at a location closer to the south and east lines; is that correct?

A. Yes. If I might elaborate a minute, my original play in there was for a bone spring. And I attempted a bone spring completed in this well and made a little well but not a keeper really. But there have been three more test drills to the south, one in Section 8 and two in Section 9. And so the Morrow outage has gotten better while I've had it, and it's time to drill.

Q. Now there have been prior -- the commission has had an occasion to look at this particular area and the Morrow sand in an application that was made by Oryx in case number 99-13 and 99-14; is that correct?

A. That is correct.

Q. Wherein they sought acreage rededication and an unorthodox gas well location. For what well, could you point out on Exhibit 1 where that was --

A. In Section 9 of Oryx, initially they dedicated the north half of Section 9 and drilled the number 1 well in the northwest of the northeast and made an excellent well. So

then they petitioned the commission and had a hearing and proved that that well would drain the east half of Section 9 so they could drill an additional well on the west half of Section 9, which they did. And it's in the northwest of the northwest of 9. So they have two unorthodox wells there now, making a lot of gas.

Q. During their presentation, they actually introduced exhibits which showed that a fault existed that ran through the corner of your acreage; is that correct?

A. Yes. They really opened my eyes with the exhibits here because they showed that major fault, and so I have a good high location on the upturned side of the fault. And that's where I want to drill to.

Q. And Mr. Kincheloe, a geologist, will testify in depth with respect to that particular geology --

A. Well --

Q. -- in support of you?

A. -- he didn't do the Oryx geology, but he's done a lot for me in there. And he's his own man, but we go by both.

Q. And you wish to dedicate the east half of Section 5 to this well; is that correct?

A. I believe so, uh-huh.

Q. And, Mr. Trainer, I didn't qualify you, but you have testified before this commission many times as an owner/operator and engineer, have you not, and been accepted,

had your credentials accepted on that basis?

A. My credentials have been accepted, yes.

MR. CARROLL: Mr. Examiner, I'm going to ask him questions concerning prevention of waste and correlative rights, and I would tender him as an expert engineer/owner/operator as having been accepted prior to this time by this commission.

EXAMINER MORROW: All right. He's accepted.

Q. (By Mr. Carroll:) Mr. Trainer, in your opinion, the granting of this application, do you feel that it would prevent waste?

A. Well, sure, we're going to produce the gas.

Q. And you feel that there's gas that would not be produced unless this application were granted?

A. Well, I sure wouldn't get to produce it, and it probably wouldn't be produced at all.

Q. And do you feel that correlative rights would be protected by the granting of this application?

A. Certainly.

Q. And it would allow you to produce gas which underlies your tract; is that correct?

A. True.

MR. CARROLL: I would pass the witness at this time.

EXAMINER MORROW: Okay. Mr. Kellahin, do you have -- he's not here.

MR. STOVALL: I think Mr. Kellahin wouldn't have any questions since they're waiving, I would assume. Let me ask you a question, Mr. Carroll. You've identified the Oryx cases for unorthodox locations. Is there anything in those cases that would be useful to the examiner that would justify bringing those records here for --

MR. CARROLL: No, you're -- Mr. Stovall, what we've done is that there is one exhibit. But we have made a copy of it, and we'll present it as an exhibit of our own so that -- it'll save time having to go through those records.

THE WITNESS: The one that shows where that fault -- where they showed that fault.

MR. CARROLL: Yeah, just --

EXAMINER MORROW: Anything else?

MR. STOVALL: I don't have any.

EXAMINER MORROW: I have a couple questions, Mr. Trainer.

EXAMINATION

BY EXAMINER MORROW:

Q. Will your geologist tell us about the wells in Section 8? Is that -- or if not, would you tell us where the wells in Section 8 are to which you've referred.

A. There's only the one Morrow well, the dry hole in the southeast of the northeast of 8. Is it on one of the cross sections on there?

MR. STOVALL: Mr. Trainer, you go ahead and answer the

questions to the best of your knowledge. And if he needs to -- it'll keep the record cleaner. It's easier to read when we do that.

Q. (By Examiner Morrow:) Well, let me back up a minute. I understood you to say that there was a producing well in Section 8.

A. No, it was dry.

Q. But if that's incorrect, well --

A. It was dry.

Q. -- that's all I need on that.

A. I believed it at the time. They offered to give it to me, and I didn't want --

Q. And why are the Oryx locations in Section 9, what makes them unorthodox?

A. They're both on the north half of Section 9, but they're dedicated to the west half and the east half. And neither one of them are 1980 from the long side and 660 from the short side by the commission rules.

Q. And those rules that would be applicable here, what rules are those, the statewide rules or --

A. Yes.

Q. -- the field rules?

A. Yeah, 320-acre spacing, the rule is that you have to be 1980 from one end and 660 from the other.

Q. And neither of these are?

A. Neither of these are, no.

EXAMINER MORROW: That's all the questions I have for Mr. Trainer.

MR. CARROLL: Our next witness would be Gene Lee.

MR. STOVALL: Have you got both your witnesses here to be sworn now?

MR. CARROLL: Yes.

MR. STOVALL: Let's go ahead and swear the other two witnesses in.

GENE LEE

the witness herein, having been first duly sworn by the Notary Public, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CARROLL:

Q. Would you please state your name and address for the record.

A. My name is Gene Lee, 1306 Meadow Lane, Roswell, New Mexico.

Q. Mr. Lee, what is your occupation?

A. I'm an independent consultant for the various operators in southeast New Mexico.

Q. Are you a well site completion type expert, an independent expert of that nature?

A. Yes, that's correct and do independent engineering and well setting work.

Q. Have you previously testified before the commission and had your credentials as such accepted?

A. Yes, several times in the past few months.

MR. CARROLL: Mr. Examiner, I would tender Mr. Lee as an expert practical well site and well completion engineer.

EXAMINER MORROW: What was your first name, Mr. --

THE WITNESS: Gene.

EXAMINER MORROW:

THE WITNESS: G-e-n-e.

EXAMINER MORROW: Your qualifications are by experience and practical work in the field?

THE WITNESS: Yes.

EXAMINER MORROW: And you have testified before; is that --

THE WITNESS: Yes, that's correct.

EXAMINER MORROW: His qualifications are accepted.

Q. (By Mr. Carroll:) Now, Mr. Lee, are you familiar with the application that has been made by C.W. Trainer before this commission?

A. Yes, I am.

Q. And, Mr. Lee, have you been commissioned by Mr. Trainer to perform certain work with respect to that application and with respect to this Harris well and the redrilling of it?

A. Yes, I was hired by Mr. Trainer originally when he

picked up this lease, and we reentered the Harris Number 1 and did all the reentry work on the well to date.

Q. Have you prepared information for submission to the commission today with respect to this particular application wherein we seek permission to directionally drill the Harris well and bottom that well at a point 660 feet from the south and east lines?

A. Yes, uh-huh, I am.

(Applicant's Exhibit No. 4 was marked for identification.)

Q. I'll hand you what has been marked as Exhibit 4. Did you prepare this AFE for the project that we've been discussing?

A. Yes, I prepared this AFE for this proposed directional job over to the Morrow on the upside of the fault.

Q. And does this AFE provide for the directional drilling of this well and all of those associated costs?

A. Yes, it does.

(Applicant's Exhibit No. 5 was marked for identification.)

Q. I'll hand you what's been marked as Exhibit 5. Did you prepare Exhibit 5?

A. Yes, I did.

Q. What is Exhibit 5?

A. It's the current well bore schematic diagram

showing the conditions of the well as it presently is.

Q. If you might just explain the significance briefly for the commission so that they might better understand what's going on, and refer back, if you need to, to your Exhibit 4. I thought it might be easier for you to discuss the two together.

A. Okay. In my cost estimate in Exhibit 4 for my AFE, I have included in it some cost to fish out some packers and do some casing repair and squeeze work in the existing well bore. And this is shown on the AFE as the rental tools and equipment, casing repair and cement, and things of that nature in there as well as additional time to complete this.

The way the well is sitting now, there are a couple of zones with open perforations in there that will have to be squeezed prior to drilling our -- cutting our window at 9,000 feet and sidetracking and to start doing our directional work. The casing integrity needs to be put back in good shape.

(Applicant's Exhibit No. 6 was marked for identification.)

Q. I'll hand you what has been marked as Exhibit 6. Would you explain what Exhibit 6 is.

A. Exhibit Number 6 is the well bore trajectory starting at our kickoff point of 9,000 feet. This is where we propose to cut a window into the 7 and 5/8ths casing and start building our angle to a 20-degree angle and hold that angle to

our target in the top of the A sand, which is target number 1 designated on here, and also through target number 2, which will be through our actual TD 660 from the south and east lines. On the right-hand side of the diagram, the scale shows our departure and shows how far to the east we will be going as we cut out the window and build our angle.

Q. Mr. Lee, this particular proposal to drill this well directionally and the exhibits that you've prepared, 4, 5 and 6, first of all, have the exhibits all been prepared and the information that's contained therein, have they been compiled according to generally accepted engineering concepts for this particular area of New Mexico?

A. Yes, they have. And I have requested several bids and proposals from different companies. And the Scientific Drilling International is the one that proposed this. And we, Mr. Trainer and myself and George Moody with Scientific Drilling, all coordinated our trajectory design and everything together here so we could make our -- build our angle at not such a steep angle by coming out the bottom of the casing. That's why we're cutting a window at 9,000 and starting off up there.

Q. Well, Mr. Lee, do you feel that this project as designed is a reasonable one in your own experience and knowledge and can reasonably be accomplished without undue problems or danger to the producing zones and what have you?

A. Yes, I do.

MR. CARROLL: I would pass the witness at this time, Mr. Examiner.

EXAMINATION

BY EXAMINER MORROW:

Q. Mr. Lee, the target location will be 660 from south and east; is that correct?

A. Yes, that's correct.

Q. This was advertised as unorthodox location. Would that be unorthodox location?

A. Yes, according to the statewide rules, it would be.

Q. Tell me again why that would be. I guess I missed something that Mr. Trainer said.

A. According to the state regulations, they require from the end of the proration unit, the well to be 1980 from the line and from the side, 660 from the side of the proration unit. These --

Q. It's got to be 1980 from both ends; is that what you said?

A. No, sir. 1980 from one end and 660 from the side.

Q. Well, wouldn't it be 1980 from the other end?

MR. STOVALL: Yeah, there would be --

A. Yeah, but we're trying to dedicate the east half of this section. As a south half unit, it is a legal location.

(THEREUPON, a discussion was held off the record.)

EXAMINER MORROW: I don't know I would be for either one, but I probably missed something in the rule there.

MR. CARROLL: Well, as we read the rule, there is a box that the well has to be within. And the north, the top end, or the south, the bottom end, that well has to be 1980 feet from the boundary line. So it has to be 1980 from the top and 1980 from the south. We certainly are from that distance from the top. But the bottom one, we are not.

EXAMINER MORROW: So it means from both ends?

MR. CARROLL: Both ends, yes, sir.

(THEREUPON, a discussion was held off the record.)

MR. STOVALL: Mr. Trainer, please, it makes the record hard. I'm sorry.

MR. CARROLL: But, Mr. Examiner, that is the reason. And we originally -- this is an amended application. We originally sought it out at 330, but in working with some of the other operators and reexamining our geology, we then opted to go the 660. That seemed to appease a lot of folks, and that's why we ended up with that amended application. And that's why it's unorthodox.

MR. STOVALL: So if I'm not mistaken, it is unorthodox to the south end but not to the east side boundary; is that correct?

THE WITNESS: It would still be unorthodox as far as the east half because of the --

MR. STOVALL: No, no, I mean, but it's only unorthodox to the south, not to the east.

MR. CARROLL: East boundary.

MR. STOVALL: East boundary of the east half?

THE WITNESS: That's correct, yes.

MR. STOVALL: And there are no special pool rules here? This is under statewide 320 spacing, Morrow spacing?

THE WITNESS: That's correct.

EXAMINER MORROW: All right. Is there anything else?

MR. STOVALL: That's all the questions.

MR. CARROLL: All right, Mr. Examiner. I would next call Dalton Kincheloe.

DALTON KINCHELOE

the witness herein, having been first duly sworn by the Notary Public, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CARROLL:

Q. Would you please start your name and address.

A. Dalton Kincheloe, 2011 South Pan, Roswell, New Mexico.

Q. What is your occupation, Mr. Kincheloe?

A. Independent geologist.

Q. How long have you been an independent geologist, Mr. Kincheloe?

A. Since 1952.

Q. All right.

A. No, '62.

Q. And most of that time is spent in southeastern New Mexico?

A. All of it.

Q. Mr. Kincheloe, you have testified before this commission and had your credentials accepted as a --

A. On occasion.

Q. I would tender Mr. Kincheloe as an expert in the field of geology

EXAMINER MORROW: Yes, sir, would you spell your last name for us.

THE WITNESS: K-i-n-c-h-e-l-o-e.

EXAMINER MORROW: Yes, sir, his qualifications are accepted.

MR. CARROLL: All right.

Q. (By Mr. Carroll:) Now, Mr. Kincheloe, you're familiar with this application that has been filed by C.W. Trainer, are you not?

A. Yes, sir.

Q. And Mr. Trainer has retained you to perform some geological work in this area and you have done so, have you not?

A. Right.

(Applicant's Exhibit No. 7 was marked for identification.)

Q. First of all, Mr. Kincheloe, we have had reference to a prior hearing which dealt with this particular area which was a hearing that was on an application by Oryx Energy in case number 99-13 and 14. I'll hand you what we've marked as Exhibit 7. Is this an exhibit from that hearing?

A. Yes, sir.

Q. Would you briefly describe what this particular exhibit shows and how it relates to Mr. Trainer's acreage?

A. This is an exhibit on the Morrow, structure map on the Morrow. And it shows existing wells as of today with number 2 being completed there in Section 9. It also shows a fault extending diagonally northeast to southwest across Section 5. This fault shows that Mr. Trainer has some acreage on the upturned side of the fault and that if he does have, he has gas potential in that particular part of the lease.

Q. Now, Mr. Kincheloe, this geological work that was performed by Oryx at least presents an explanation why Mr. Trainer's well was dry in the Morrow, does it not?

A. Yes, it would suggest it would probably be dry.

Q. Now you have performed and prepared some of your own geological work in this area, have you not?

A. Yes, sir.

Q. And with respect to the exhibits that you have

prepared -- let's go to your first exhibit, I believe, is a map on the A sand; is that not correct? Why don't you show me.

A. (Witness complies.)

MR. CARROLL: Mr. Examiner, we were a little slow in getting these things marked.

EXAMINER MORROW: You all are doing good.

MR. CARROLL: But we're --

THE WITNESS: We had them all spread out downstairs, and he said it's time to go, so didn't do too well.

MR. STOVALL: That's one of the disadvantages of being first on the docket.

MR. CARROLL: And having to come such a long distance.

Q. (By Mr. Carroll:) All right. Mr. Kincheloe, we've presented to the examiner your Exhibit A. Would you please explain what is contained on Exhibit A.

A. All right. A is a structure map on the top of the A sand which is in the Morrow section. We'll get into that on cross section here directly. And it's on a scale of one inch equals 660 feet. I thought it would probably go in a roll. I see it isn't today. And it shows the wells in existence and the dry holes which would be the N-1 well in Section 8, Mr. Trainer's well in Section 5. The other wells are gas wells.

It also shows our proposed bottom of the sidetracked hole being 660 from the south and east corner of

Section 5. The BC cross section, of course, will come along in a minute. And we show there a structural cross section involving the fault between the Oryx Number 1 and the L&B well that was drilled. Structurally, the acreage appears to be on the upside of the fault, appears to be comparable to the Oryx well and also to the Shell well in Section 4.

(Applicant's Exhibits Nos. 8 and 9 were marked for identification.)

Q. You've also prepared an exhibit on the C channel sand; is that correct?

A. Yes, sir.

Q. And we will call that Exhibit 9. Give me a couple of those.

A. All right. You want the --

(THEREUPON, a discussion was held off the record.)

Q. Would you explain what Exhibit 9 depicts.

A. Exhibit 9 is just a structure map on the same scale as on the other exhibit there. It shows the structural at the C level on these surrounding wells. It shows the number one well, which is in the northeast of the -- the northwest of the northeast, Section 9. Number two well in Section 9, which is 1650 from the north and west. And then it shows the Trainer well which is 1980 from the east, 660 from the south of Section 5. It shows a fault. And because the C sand appears to be a channel sand, I've depicted the channel as running

diagonally across Section 5 to the northwest and the southeast. It misses the Trainer well. It misses the Oryx Number 2 well. The Shell Number 1 well in Section 4 is covered by the channel. And we've run against the fault. We terminate all the geology at the fault if that's really what happens there. We show the location being 660 from the south and east. Based on this map, Mr. Trainer should have approximately 25 feet of gross sand in the C sand, which is a major bay in the channel.

Q. Both exhibits then, 8 and 9, show that Mr. Trainer should have a reasonable chance of hitting pay zones by this location?

A. By directional drilling.

Q. By directional drilling?

A. Right.

Q. Your next exhibit is a stratigraphic cross section.

A. You don't want the other?

Q. Why don't we talk about that in just a minute, Mr. Kincheloe.

A. All right.

(Applicant's Exhibit No. 10 was marked for identification.)

Q. Exhibit 10 will be your stratigraphic cross section -- Mr. Kincheloe, if you would, why don't you describe this exhibit, Exhibit 10.

A. I can stand. I guess it'll be all right?

Q. Certainly.

A. Exhibit 10 encompasses the Oryx Number 1 in Section 9, Oryx Number 2 in Section 9, L&B Number 1 federal in Section 5, and the Southern Union Number 1 Barbara in Section 6, which is not shown on the map, but it's on to the west. The reason that the well in Section 6 is shown, it shows real good sands in A sand, B sand, and C sand of the Morrow section. Those are shown in yellow. You can follow the correlations on the sands directly across all the way across the cross section. Now this map or this cross section has been hung on the Morrow plastics, in other words, flattened on that horizon so that we could see the correlation and be sure that we were talking about the same sand.

When you put over 1100 feet of dip in the thing, it's very difficult to follow your correlations. But by putting it on Morrow which is below the faulting, if there is faulting in the area, it's quite easy to follow the sands across. The Oryx Number 1 well has a zone in yellow and about 12,670, which shows good porosity, which is shown in orange on the right-hand side of the log there. This is a primary sand zone that Mr. Trainer is interested in finding. It also has a very slight show in the B sand down at about 12,880 to 90, right there. It's a good little sand. It does not produce in the Oryx Number 1, but it is a producer in the Number 2 well.

Incidentally, the Oryx Number 1 doesn't produce well on A either. It's strictly a C channel sand. The C channel down there at 13,010 to about 40, you have an excellent development of about 50, 60 feet of sand, good porosity and oil potential for a major 8,900,494 cubic feet of gas. It's been a very fine well. After the drilling of that well, Oryx attempted a second well, which is Oryx Number 2, 1650 from the north and west of Section 9 with the idea of encountering the same sand. As you can see, they missed the C sand. There's nothing present there that's productive in the c interval. They found A sand to be split up somewhat but were able to perforate it and potential of a very good well out of the A and B. Now I don't think they got any gas out of that B. They have perforated, but they certainly had a right to go look for it. It could be productive.

Moving on to the northwest, the L&B well, in the Morrow, A at about 13,545 about 570. You have the sand, good porosity. The thing was drilled tested with a straddle packer test and a waterline test. It showed excellent pressure and a lot of water. It didn't produce water, but they felt like the well was kicking and make some water. The second test down in the B, you have a good sand. Oh, incidentally, the water saturation in A is about 68 percent. Over in the Oryx Number 1 well, water saturation is about 15 percent, a pretty good clue.

The B sand in the LB shows nine percent porosity, 30 percent saturation. It's from 13,7 about 64 to just right in that interval right there. The sand is not as well developed, not as porous, but it could be a gas producer. It has a very slight show. And, again, in the C zone, down in the bottom there at 13,960, there's no sand present. That is the reason for drawing the limit of the sand that you see on your structure map. In other words, we know it isn't in this well, it isn't in the Oryx Number 2. But it sure as the dickens is over in Section 6 in the Barbara, Southern Union Barbara.

That well in the C interval has very little below 14,000 feet, so it's about 30, 40 feet of gross sand. And it has orange painted down there on the right which indicates that it should be gas productive. Water saturation is 42 percent in that well, that interval. The B sand in there looks the best of any of them to me. It has from 14, oh, about 640 to 90, shows good sand, good porosity, over ten porosity, with a 30 percent water saturation. That one is a maybe. He might make it. The A sand in that well is nine percent porosity, 60 percent water saturation, probably would not produce gas. But the sand in this one that we're really interested in, the C zone, does show up, shows that the channel comes back over in that area. I believe that's it.

Q. You've also prepared a structural cross section,

have you not, of this area?

A. Yes, sir, I have.

(Applicant's Exhibit No. 11 was marked for identification.)

Q. Exhibit 11. Would you describe Exhibit 11 for the commission.

A. Exhibit 11 encompasses only two wells, the Oryx Number 1 and the L&B federal, one in Section 9 and one in Section 5. The scale is reduced because we did not have one that -- it's way too long. This one's too long, but we can work with it anyway. It shows all the formations from the middle bone springs down to TD on both wells. The cross section shows that the trend of the sidetrack hole starting at 9,000 kicked out and where it will land up. At the bottom there on the L&B well, that's 1320 feet east of the surface location of that well. This cross section was made with a fault shown with the horizon being basically flat until you intersect the fault and then dropping off sharply to the west.

The fault comes up into the Atoka, probably not above that. It probably dies out there. So above that, all you have is draped over, and it's on the structural contours. It shows the A sand and the C sand on the Oryx well running over and intersecting the fault. They will come in about, oh, about 13,000 on this Morrow C sand if our picture is correct and we intersect the sand there. So we're expecting to be in

the channel and structurally high enough to produce gas whenever we encounter it at that bottom. Anything else?

Q. (By Mr. Carroll:) Mr. Kincheloe, based upon your experience as a geologist and on the geological work that you have performed and presented here to the commission in the last four exhibits, do you feel that the location that Mr. Trainer is wishing to get permission to bottom a well on, is that a reasonably productive location, at least based in your experience and the geological work you've done?

A. I feel that it is a good location.

Q. Now as an expert, a geologist, do you feel that the granting of this application would be in the interests of preventing waste, Mr. Kincheloe?

A. Yes, sir, I do. I feel like that there's gas present in Section 5 and that Mr. Trainer, who has hold of the lease, should be entitled to it.

Q. And do you feel that if this well were not given permission to be drilled that there would be hydrocarbons, gas in particular, that might not be produced?

A. Possibly.

Q. Now, Mr. Kincheloe, thus far, we have presented a geological picture based upon a picture that has been previously presented to the commission and accepted by the commission, principally by the Oryx application. Is this area susceptible to more than one geological interpretation?

A. Yes, it is.

Q. And you have prepared another exhibit, have you not, to help illustrate another interpretation of that?

A. Yes, sir.

Q. Give me some of those.

A. A structure map on the C sand without the fault, with a fault trace shown on the map but not considered in contouring.

MR. CARROLL: I will mark that as Exhibit 12.

(Applicant's Exhibit No. 12 was marked for identification.)

(THEREUPON, a discussion was held off the record.)

Q. Mr. Kincheloe, would you describe Exhibit 12. And if you would, just go ahead and, one, describe it and also give your reasons why this is also a reasonable interpretation of the geology that you have discovered out there in this field.

A. All right. The map on the right-hand side is essentially the same as it is on the other exhibit in the C channel. However, on the west side, I've chosen to show depth. And I was partially controlled by the well in Section 6, which at the top of the C comes in at a minus 11,200. The well in Section 5 -- that's the Barbara well in C in Section 6. The well in 5, the L&B federal, has a datum of a minus 10,260. When you come over to the Oryx Number 2, it's 9412 on

the top of the C marker. If you put a fault in there, the way we've shown on the other map, then there isn't any real steep dip. Everything should fall flatly. But whenever you consider the well in Section 6 and the well in Section 5, the dip seems to be very gentle. In other words, it just continues at the same rate from about the east line of Section 5 to Section 6.

So if you put the map on dip across there, our location, 660 from the south and east, will be all right. There is no fault there. We still expect to have 25 to 30 feet of sand in the channel, and the channel extends on to the northwest. I think it's a reasonable interpretation. The fault obviously was put here by Oryx on information that they had. I'm not privy to that information. So I wanted to show what could happen if we did have a fault there.

Q. Now this particular Exhibit 12, is it drawn with all of information that's been available to you from --

A. Yes, sir.

Q. -- past previous drilling and what have you?

A. Right.

Q. And you feel that this is as reasonable an interpretation as that presented by the Oryx exhibit?

A. Yes, sir.

Q. With respect to either one of these exhibits, do you have an opinion as to whether or not the east half of this

Section 5 should be considered as productive if we were allowed to drill the well at the location that Mr. Trainer is seeking?

A. I think it would be productive.

Q. And that this well would have an opportunity or a chance to drain the east half of Section 5?

A. Right.

Q. Now with respect to the granting of this application, do you feel that should this application be granted by the commission that it would protect correlative rights or be in the interests of that?

A. Yes, sir.

Q. This would allow Mr. Trainer to produce the hydrocarbons then underlying his tract, the east half of Section 5?

A. Yes.

Q. Is there anything further, Mr. Kincheloe, that you would like to add with respect to Mr. Trainer's application before the commission?

A. Well, I believe that if Mr. Trainer gets this well and makes a good well that possibly he will be willing to drill another one further out to the west, even on down dip.

Q. I see.

A. Because I feel that we'll be opening up a new area and we'll be finding more gas.

MR. CARROLL: At this time, Mr. Examiner, I would move admission of Mr. Trainer's Exhibits 1 through 12.

EXAMINER MORROW: Exhibits 1 through 12 are admitted into evidence.

(Applicant's Exhibits Nos. 1 through 12 were admitted into evidence.)

MR. CARROLL: And I would pass the witness to you, Mr. Examiner, at this time.

EXAMINATION

BY EXAMINER MORROW:

Q. Mr. Kincheloe, the well in Section 4, what kind of well did that make?

A. That was a Morrow well. It produced A, B and C.

Q. Do you have any idea what the potential was for it to produce?

A. Well, produced some perforations 12,886 to 13,011, initial calculated potential, 4,900,000 cubic feet a day.

Q. And what in the west half of 9, the Number 2 Oryx well, you said it made a good well?

A. Yes, sir. Oryx Number 2, potential for 23,855,000 cubic feet, and its perforation at 12,725 to 12,922.

Q. So just based on that, it's a better well than number 1 even though it didn't have C sand?

A. It's got a better potential, but it's a long ways from being a better well, I think. I think it just, you know,

a lot more permeability at the time, it would have been.

Q. Yes, sir. The well in Section 6, was it ever tested in the Morrow sand?

A. No, sir. Well --

Q. I wonder why.

A. Well 6?

Q. In Section 6?

A. Yes, sir, had a test in the bone springs and no test in the Morrow at all. Good potential in the bone springs for a very small well.

Q. I got the idea on your last exhibit that a location further north might be -- did you consider a location further north because of the trend of the C sand?

A. Yeah, it would be possible all right. But this was a location Mr. Trainer selected, and it certainly seemed like it's in a good spot. I feel like that his idea of being close to production was not bad. In other words, he liked to be on the southern end of that thing even further south than we were, but we ran into a little opposition. At 660, it appeared to be all right, so he's willing to drill there.

Q. Have you made an estimate of how much gas will be recovered by this well?

A. No, sir, I haven't made an estimate of it, but I would think it would be an average Morrow well.

Q. What would that be?

A. Oh, a billion, billion and a half, something like that.

EXAMINER MORROW: Have you got anything?

MR. STOVALL: No.

EXAMINER MORROW: That's all we have for this witness.

MR. CARROLL: Mr. Examiner, I think that would conclude our case then.

EXAMINER MORROW: Case number 10137 will be taken under advisement.

(The foregoing hearing was adjourned at the approximate hour of 9:15 a.m.)

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

REPORTER'S CERTIFICATE

I, DEBORAH LAVINE, RPR, a Certified Shorthand Reporter and Notary Public, DO HEREBY CERTIFY that I stenographically reported these proceedings before the Oil Conservation Division; and that the foregoing is a true, complete and accurate transcript of the proceedings of said hearing as appears from my stenographic notes so taken and transcribed under my personal supervision.

I FURTHER CERTIFY that I am not related to nor employed by any of the parties hereto and have no interest in the outcome hereof.

DATED at Santa Fe, New Mexico, this 21st of December, 1990.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10137, heard by me on November 28 1990.

Oil Conservation Division Examiner

DEBORAH LAVINE, RPR
Certified Shorthand Reporter
CSR No. 252, Notary Public

My Commission Expires:
August 6th, 1993

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date NOVEMBER 28, 1990 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
[illegible]	Self	526 [illegible] Summit Beach TX
Dalton [illegible]	Trainee	859 Petro Bldg Roswell
William F. Carr	Campbell and Black P.A.	Santa Fe
Mark Nearburg	Nearburg Producing Co	Midland
Jerry Elger	Nearburg Producing Co	Midland
Paul Cooter	Rodey Law Firm	Santa Fe
KEITH LOGAN	BTA OIL PRODUCERS	MIDLAND
Maurice Trimmer	Byram Co.	Santa Fe
Ernest L. Carroll	Losee Carson Haas & Carroll	Artesia
David R. Vandiver	Fisk & Vandiver	Artesia
Robert Bullock	YATES PETROLEUM CORP.	Artesia
W. Perry Pearce	Montgomery & Andrews, P.A.	Santa Fe
[illegible] Kellahin	Kellahin Kellahin and Aubrey	Santa Fe
Gene Lee	C.W. TRAINER	

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date NOVEMBER 28, 1990 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
Chip Ely	Yates	Artesia
Pam McElwort	Yates	Artesia
DAVE BONEAU	YATES PETROLEUM	ARTESIA, NM
Janet Richardson	Yates Petroleum	ARTESIA, NM
G Broome	T H McElvain	Santa Fe
J. MIKE McGINLEY	HADSON GAS SYSTEMS	DALLAS TX
Phil Moore	Plains Radio Petroleum Co.	Amarillo, TX.