NEW MEXICO OIL CONSERVATION DIVISION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date JANUARY 25, 2001 Time 8:15 A.M.

NAME	REPRESENTING	LOCATION
Rich Dempowski	BLM	Farmington
Bill Owen	Devon Pet. Corp	Roswell
Ed Davis	"	"
Bill Hawkins	BP Amoco	Denver
William F. Carr	Holland & Hart LLP	Santa Fe
Eric Cummings	Yates Petroleum	Artesia
[illegible]	[illegible]	[illegible]

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:	)	CASE NO. 12,578
APPLICATION OF CROSS TIMBERS OIL COMPANY TO AMEND DIVISION ORDER NOS. R-11,132 AND R-11,132-A FOR SIMULTANEOUS DEDICATION AND AN UNORTHODOX SURFACE WELL LOCATION, SAN JUAN COUNTY, NEW MEXICO	)	

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

January 25th, 2001

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, January 25th, 2001, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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Examiner Hearing
CASE NO. 12,578

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A P P E A R A N C E S

FOR THE APPLICANT:

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* * *

WHEREUPON, the following proceedings were had at 8:25 a.m.:

EXAMINER STOGNER: This hearing will come to order for Docket Number 2-01. Please note today's date, January 25th, 2001.

The address is wrong on the docket. We're in our new digs here at 1220 St. Francis Drive, Santa Fe, New Mexico.

I'm Michael Stogner, appointed Hearing Examiner for today's cases.

At this time I'll call Case Number 12,578, which is the Application of Cross Timbers Oil Company to amend Division Order Numbers R-11,132 and Order R-11,132-A for simultaneous dedication and an unorthodox surface well location in San Juan County, New Mexico.

At this time I'll call for appearances.

MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, representing the Applicant. I have three witnesses to be sworn.

EXAMINER STOGNER: Are there any other appearances in this matter?

Will the witnesses please stand to be sworn?

(Thereupon, the witnesses were sworn.)

TIM WELCH,

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. Tim Welch.

Q. And where do you reside?

A. Fort Worth, Texas.

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

A. I'm a senior landman for Cross Timbers Oil Company.

Q. Have you previously testified before the Division?

A. No, I have not.

Q. Could you please briefly state your educational and employment background?

A. After graduating from the University of Oklahoma in 1975, I've been continuously employed in the oil and gas business as a landman, including work for Gulf Oil, Enserch Exploration, Belco Corporation, and now Cross Timbers.

Q. And how long have you been at Cross Timbers?

A. Approximately one year.

Q. And does your area of responsibility include portions of San Juan County?

A. Yes, it does.

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

A. Yes, I am.

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

EXAMINER STOGNER: Mr. Welch is so qualified.

Q. (By Mr. Bruce) Mr. Welch, what does Cross Timbers seek in this case?

A. We would like to drill the Ute Indians "A" Well Number 32 as an infill well in the Dakota and Morrison formations in the southeast quarter of Section 2, 31 North, 14 West.

Q. Would you identify Exhibit 1 for the Examiner, please?

A. Yes, that would be our land plat, with the proposed well marked on the plat, both the surface location and the bottomhole location. It also identifies existing wells in the Dakota and Morrison formations.

Q. Would you briefly describe the well that Cross Timbers proposes to drill?

A. We would seek to drill the Ute Indians "A" Well Number 32 at an unorthodox surface location 560 feet from the south line and 1120 feet from the east line.

The well will be drilled to the Morrison

formation. It will encounter the top of the Dakota approximately 850 feet from the south line and 1450 feet from the east line, and the top of the Morrison formation at approximately 890 feet from the south line and 1496 feet from the east line.

Additionally, the bottomhole location will be approximately 1031 feet from the south line and 1656 feet from the east line.

Q. Why does Cross Timbers seek approval to drill this well?

A. This location is based on geology and engineering, and our next witnesses will discuss these factors in more detail.

Q. Was an infill -- At least as to the Dakota formation, was an infill well previously approved by the Division in this well unit?

A. Yes, Division Order R-11,132, as amended by Division Order Number R-11,132-A, approved the drilling of the Ute Indians "A" Well Number 26 at a location 570 feet from the south line and 1045 feet from the east line of Section 2 to test the Paradox formation.

That well was intended to evaluate the Dakota formation. However, because the well was successfully completed in the Paradox formation, we do not plan to use the well to test the Dakota formation.

Q. What is the Dakota and Morrison spacing in this area?

A. Both zones are spaced on 160 acres. The Dakota is in the Ute Dome-Dakota Gas Pool. Neither pool is prorated.

Q. Is simultaneous dedication also requested?

A. Yes, in the --

Q. In both formations?

A. Yes.

Q. And what would be the wells be which are simultaneously dedicated?

A. In the Dakota formation, the existing Ute Indians "A" Well Number 20 and the proposed Ute Indians "A" well Number 32 will be dedicated to the southeast quarter of Section 2.

In the Morrison formation, the existing Ute Indians "A" Well Number 27 and the proposed Ute Indians "A" Well Number 32 will be dedicated also to the southeast quarter of Section 2.

Q. Looking at this plat, what is leasehold ownership?

A. Sections 1, 2, 11 and 12, Township 31 North, 14 West, are owned by the Ute Mountain Ute Indian Tribe, and Cross Timbers is the only working interest owner in these sections.

Therefore, there is no working interest owner who needs to be notified of the Application.

Q. Okay. However, was notice of this Application given to the tribe and to the BLM?

A. Yes, additionally we had in-person meetings with the tribe and the BLM in Durango on November the 15th of last year.

Q. And is Exhibit 2 my affidavit of notice to the tribe and the BLM?

A. Yes.

Q. What is Exhibit 3?

A. It's a letter from the BLM stating that it does not object to the proposed well.

Q. Were Exhibits 1 through 3 prepared by you or under your direction or compiled from company business records?

A. Yes.

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

A. Yes, it is.

MR. BRUCE: Mr. Examiner, I'd move the admission of Cross Timbers Exhibits 1 through 3.

EXAMINER STOGNER: Exhibits 1 through 3 will be admitted into evidence.

EXAMINATION

BY EXAMINER STOGNER:

Q. You said that Sections 1, 2, 11 and 12 was owned by the Ute Indian Tribe. Is that all one lease, those four sections?

A. Actually, that's made up of two separate leases, but the ownership again is consistent as to the royalty, working interest ownership and overrides.

Q. Okay, what are the two leases? Let's describe those.

A. You know, I failed to note that on my plat. I'm sorry.

EXAMINER STOGNER: You can provide that later --

THE WITNESS: Okay.

EXAMINER STOGNER: -- can't you, Mr. Bruce?

MR. BRUCE: Yes, sir.

Q. (By Examiner Stogner) When did Cross Timbers obtain these leases?

A. In the acquisition from Amoco, and I believe that had an effective date of January 1 of 1998.

EXAMINER STOGNER: Mr. Bruce, do you have extra copies of those two orders in which you are seeking to amend --

MR. BRUCE: Yes, I do. I'll provide them when I provide the leasehold data to you.

EXAMINER STOGNER: Well, that will be too late. No, I've got them upstairs, now that we have them unpacked.

MR. BRUCE: Wait a minute here, Mr. Examiner, I might... I do have them here, Mr. Examiner.

EXAMINER STOGNER: If I can just borrow them for a second.

MR. BRUCE: I do have extras, Mr. Examiner, so you may keep those.

EXAMINER STOGNER: Thank you.

Okay, I have no other questions of this witness. Thank you, sir. You may be excused.

THE WITNESS: Thank you.

EXAMINER STOGNER: Mr. Bruce?

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

Mr. Examiner, I'll also give you a copy of Order Number R-11,131, which did address simultaneous dedication in the Dakota and Morrison in the southeast quarter.

RANDALL HOSEY,

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 and city of residence?

A. Randall Hosey, H-o-s-e-y, Fort Worth, Texas.

Q. And who do you work for and in what capacity?

A. I'm a senior geologist with Cross-Timbers Oil Company.

Q. Have you previously testified before the Division?

A. Yes, I have.

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

A. No, they weren't. Geologist.

Q. Sorry, Mr. Hosey. Not enough coffee this morning.

And does your area of responsibility at Cross Timbers include San Juan County?

A. Yes, it does.

Q. And are you familiar with the geology involved in this Application?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I tender Mr. Hosey as an expert petroleum geologist at this time.

EXAMINER STOGNER: Mr. Hosey is so qualified.

Q. (By Mr. Bruce) Mr. Hosey, let's discuss the proposed location for the proposed "A" Well Number 32, which is Exhibit 4.

A. Exhibit 4 is a structure map on the top of the Dakota formation. It shows the proposed surface location

as a square in the southeast quarter of Section 2, and the bottomhole location connected to it with a line. The surface location is 560 feet from the south line, 1120 feet from the east line. The bottomhole location is 1031 feet from the south line and 1656 feet from the east line.

Q. What is the reason for the unorthodox surface location?

A. The topography out here is very rough, and to minimize surface damage, we've picked a location on an existing well pad and plan to deviate the well to the bottomhole location.

Q. And that was also okay'd with the Ute Mountain Ute Tribe, was it not?

A. Yes, it was.

Q. What type of data is Exhibit 4 based on?

A. Exhibit 4 is based on a Vibroseis 3-D survey, seismic survey, shot by Amoco in 1995, and it was subsequently reprocessed by Cross Timbers in 1998.

Q. Go ahead.

A. This map has on it -- The black and red lines are faults that bisect this part of the Ute Dome Field.

Q. Okay, and could you please further describe the geology in this particular area of the Basin?

A. The Ute Dome Field is located on a broad, semicircular structure on the southeastern edge of the Four

Corners Platform. On the southeast side of the structure, the stratigraphic section dips steeply into the San Juan Basin. The southern part of the structure is bisected by numerous west-northwest-to-east-southeast-trending normal faults. These faults commonly create four-way closure, which traps hydrocarbons, and they're both down to the north and down to the south faults.

Q. How do these faults relate to the proposed location?

A. We would be testing -- This proposed location is targeting the upthrown portion of a fault block that will not be produced, or we don't believe will be produced, by any of the existing wells in this section -- or in this quarter section.

Q. Okay. Now, is the Dakota the primary zone of interest in this well?

A. Yes, it is. We are targeting the highest structural point in the southeast portion of this unit.

Q. What is Exhibit 5?

A. Exhibit 5 is a structure map on the top of the Burro Canyon.

One of the problems we have with the seismic data that we currently have is, we cannot see the top. We don't have a good marker on the top of the Morrison, so we submit this exhibit on the top of the Burro Canyon, which is

approximately 50 to 75 feet above the top of the Morrison, to show that the geology is, in fact, similar to that of the Dakota.

Q. Okay. Now, in the Morrison, you'd also like to test the higher part of the structure, would you not?

A. Yes.

Q. Now, this well isn't exactly at the highest part of the structure. Is that because the Dakota is the primary zone?

A. Right, that's correct.

Q. Okay. What effect will the proposed well have on the existing Dakota and Morrison wells in the southeast quarter of this section?

A. I believe that these faults are sealing, and I don't believe that it will have any adverse effect on any of the existing wells.

Q. Were Exhibits 4 and 5 prepared by you or under your supervision?

A. Yes, they were.

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

A. Yes, it is.

MR. BRUCE: Mr. Examiner, I'd move the admission of Cross Timbers Exhibits 4 and 5.

EXAMINER STOGNER: Exhibits 4 and 5 will be admitted into evidence.

EXAMINATION

BY EXAMINER STOGNER:

Q. How does your geology that you're submitting today differ from back in -- what, 1998, whenever Cross Timbers came in and asked for the location for the Number 20 well?

A. The "A" 26?

Q. Is that the one?

A. That's the well that we're drilling.

Q. 27? Whatever the Order Number R-11,131 approved.

A. Okay. Basically the only difference in the geology would be the fact that the structural top may have been a few feet different than proposed originally. The top of the Dakota was hid at a slightly different elevation than what was shown on the original maps, but that difference was only a few feet. And basically the geology has not changed significantly at all.

Q. So right now the Number 20 is the only one in the Dakota formation; is that correct?

A. Yes, that's correct.

Q. In this quarter section?

A. Yes, sir.

Q. And why wasn't the Number 27 completed in the

Dakota?

A. The Number 27 was drilled through the Dakota into the Morrison. That well actually encountered a Morrison sand that was highly productive and is currently producing from the Morrison only.

Q. Okay. So Cross Timbers changed its mind, essentially?

A. Right, basically the production in that well was significant enough not to complete the Dakota at the time.

Q. Okay, so that portion of the old order should delete any implications that the Number 27 will be all right to complete in the Dakota?

A. What was that, excuse me? Should we delete the Dakota --

Q. Yeah, from any application that it would ever be completed in the Dakota?

MR. BRUCE: At this time that's --

THE WITNESS: Yeah, I mean, we don't have -- At this time we don't currently plan to produce the Dakota in that well. But as the Morrison declines, as we get additional data from that Morrison well, you know, at some point in time it may be necessary. But we would approach that at that time if we --

Q. (By Examiner Stogner) Well, how many wells are necessary in a quarter section?

A. Well, when there are several faulting -- and these blocks are -- basically, you have individual partitions separated by different faults, that unless these faults -- you know, these faults tend to just create little reservoirs of their own, and you will not -- one well will not sufficiently drain each individual fault block.

Q. I thought the BLM had a problem with putting wells all over the surface up there.

A. Well, that's one reason that we would be using -- Say in the instance of the "A" 27, if we were at some time to feel it necessary to get approval, either come back and get approval for that, if the data suggests it, to add the Dakota, we would be using the existing wellbore, so there would not be any additional surface disturbance.

And that's one of the reasons we're using the "A" 26 location as the surface location for this well, to also minimize surface disturbance.

Q. Wouldn't it be easier just to prorate the pool, and that will allow you to have more than one well without having to do this every time you...

A. Yes.

Q. Okay. Then when does Cross Timbers plan to do this?

A. I don't know that right now. I think it is -- You know, we are looking at trying to do that, but we have

not set specific timing on that, but I would imagine it's not going to be very long.

EXAMINER STOGNER: Mr. Bruce, would you like to continue this matter and readvertise? Let's get this thing over with, let's make it streamlined for you and us at the same time.

MR. BRUCE: Well, Mr. Examiner, let me talk with my clients about that, for one thing. They would like to drill this well, and we have had discussions about coming back in to discuss infill drilling in the Ute Dome-Dakota Pool.

EXAMINER STOGNER: Well, I didn't say infill drilling, I said prorating.

MR. BRUCE: Well --

EXAMINER STOGNER: That's what this witness suggested.

MR. BRUCE: Well, Mr. Examiner, at this time, just for this one well, we do not believe that's necessary for the entire pool at this time, and we would like to get this well drilled to gather additional data.

EXAMINER STOGNER: Well, it looks like we've had about, what, three hearings, just in this one quarter section. Isn't that kind of getting old?

MR. BRUCE: Well, Mr. Examiner, to a certain extent it is, but the other hearings also involved the

Paradox at the time, and we are looking at additional Paradox drilling at that time, at this time. One thing which the engineer will discuss is that even though we're seeking simultaneous dedication in the Dakota, the existing Dakota well at this time is not producing, so that's one factor involved.

EXAMINER STOGNER: Because, as you know, the implications to this, an exception to 104.D.(3) --

MR. BRUCE: Yes.

EXAMINER STOGNER: -- which has in the last two months become a focus of many conversations, the Eumont, the Jalmat, the Abo, the Pictured Cliffs, throughout the state.

MR. BRUCE: Yes --

EXAMINER STOGNER: So --

MR. BRUCE: -- especially for recompletions, we understand that.

EXAMINER STOGNER: Oh, no. Oh, no, not just recompletions. Oh, no, you're far from that, very far from it.

MR. BRUCE: Well, but we would like to get this well drilled, and as I said, we have had discussions among myself and my client about coming back regarding the Ute Dome area.

EXAMINER STOGNER: If it's the desire of this

industry to drill wherever they please, how many wells they want, then they need to think about getting these rules changed so we don't have to be coming in on this all the time.

MR. BRUCE: Yeah, and --

EXAMINER STOGNER: Each one of these approved gets further along those lines.

MR. BRUCE: We understand that, Mr. Stogner. This area is a little different because of the substantial amount of faulting in it.

EXAMINER STOGNER: Then let's maybe take a chapter from Pecos Slope-Abo and change the pool rules.

Q. (By Examiner Stogner) Okay, I'm a little unfamiliar with the Morrison. Now, you used the top of the Burro Canyon. Is that -- how many -- Is this a portion of the Morrison?

A. No, actually this is a portion of the Dakota. The problem is, the Burro Canyon sits directly on top of the Morrison, and you can't image -- based on the seismic survey that we have, we can't get a good reflection on the Morrison. Therefore, we're using this as kind of the closest top that we can image to show the Morrison.

Q. When I review the geological findings in Order Number R-11,131, are they still applicable today?

A. I don't have that order in front f me.

Q. Well, particularly at that time they talked about the faults often form a four-way structural closure.

A. Yes, yes, it's still applicable.

Q. And it talks about the Dakota-Morrison sandstones are typically wet when encountered off the localized structures?

A. Right.

EXAMINER STOGNER: The economics of directional drilling will be presented by your next witness; is that correct?

MR. BRUCE: He will discuss it to some extent --

THE WITNESS: Yes.

MR. BRUCE: -- yes.

EXAMINER STOGNER: Because we're setting precedents here. If you can drill from an unorthodox surface location to an orthodox bottomhole location, then you're closing yourself up for asking for unorthodox locations out there. When you can directionally drill here, you can directionally drill there.

MR. BRUCE: Well --

EXAMINER STOGNER: Be aware of that.

MR. BRUCE: -- partly, Mr. Examiner, as you well know, getting approval to drill on tribal lands is somewhat difficult.

EXAMINER STOGNER: As it may be getting difficult

in non-Indian lands, on BLM or State land. That's what you encounter when you drill offshore Louisiana, you have to drill offshore. If you take a lease here, so -- same thing. So I'm sure that we may after today see less and fewer Cross Timbers unorthodox location requests, based n what you're about to present today on the directional drilling.

I have no other questions of this witness.

BARRY VOIGT,

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 and city of residence for the record?

A. Barry Voigt, Euless, Texas.

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

A. Cross Timbers Oil Company, as a senior reservoir engineer.

Q. Have you previously testified before the Division?

A. Yes, I have.

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

A. Yes, they were.

Q. And are you familiar with the engineering involved in this Application?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I tender Mr. Voigt as an expert petroleum engineer.

EXAMINER STOGNER: Is it Voigt, V-a-u- --

THE WITNESS: V-o-i-g-t.

EXAMINER STOGNER: Thank you, Mr. Voigt. Mr. Voigt is so qualified.

Q. (By Mr. Bruce) Mr. Voigt, could you identify Exhibit 6 for the Examiner and discuss its contents?

A. Exhibit 6 is a cumulative production map, a nine-section area around the proposed well. At each well spot you have above it the operator, the well name and number. To the left you have cum oil and current-rate oil. To the right you have cum gas and current rate of the gas. Below the well spot you have the start of production and the last production date of record, and then the formation that the well is producing at.

Q. Now, looking at this map, the well at the very northern edge of the southeast quarter, the "A" 27 well is the Morrison well for which you seek simultaneous dedication, is it not?

A. Correct.

Q. And then just to the north of the proposed well's

bottomhole location is the "A" 20, and that's the Dakota well, is it not?

A. Correct.

Q. Okay. Let's move on to your Exhibit 7. Could you identify that and discuss what reserves you hope to recover from the proposed well in the Dakota?

A. Exhibit 7 is a display, a table. The first table is the current producing Dakota well, which is the Ute Indians "A" Number 20, which has basically cum'd about 137 million cubic feet. The well will not produce continuously at this time, so the decline EUR is the same as the cum, as of October of 2000.

The second table is a recoverable gas in place table, basically taking the net-pay isopach maps that the geologists have prepared, planimetered the southeast quarter of Section 2 for the first, second, third, and then a lower fifth/sixth Dakota sand. The total gas in place for those sands in that quarter section is approximately 1.7 BCF, with recoverable gas in place of 1.4 BCF.

And then I have a current 160-acre recovery, just showing a fractional recovery of what the Ute Indians "A" 20 has recovered in the section.

The third table is an estimation of remaining recoverable gas, basically subtracting the Ute Indians "A" Number 20 well from the recoverable gas in place, giving

you an estimated remaining recoverable gas of approximately 1.3 BCF.

Q. The "A" Number 20 well will not produce this additional 1.3 BCF, will it?

A. No, it will not.

Q. Because of the faulting?

A. Yes.

Q. Okay. Continue through this exhibit briefly.

A. The next page after that is a plot of the Ute Indians "A" Number 20 well showing a production over the life of the well. And then the pages following that are the gas-in-place calculation sheets for each of the sands.

Q. Looking at these figures and getting to a question the Examiner asked Mr. Hosey, has any of this data changed from the original go-around on these wells?

A. On the first, second and third sands, the porosity and water saturation have changed slightly, just due to drilling the "A" 27 well and the "A" 26 Paradox well in which we ran logs over the Dakota, just helped to fine-tune those numbers.

Q. Okay. And so the pages after the first page are simply the backup data for your calculations?

A. Correct.

Q. Okay. What about the Morrison? Could you identify Exhibit 8 and discuss what you hope to recover

there?

A. Exhibit 8 is similar to the previous exhibit, the current producing Morrison wells. You have the Ute Indians "A" 27.

Now, I do have a Case Number 1 and a Case Number 2. If you flip to the next two sheets, you will see the production plot. Case Number 1 is an optimistic case of what I believe you might recover from the "A" 27 well, and Case Number 2 is a possibility that you do have a limited reservoir here.

The last time I checked production on this in the middle of January, it was producing only about 500 MCF a day, so it is still showing about an approximate 85-percent decline rate.

You have a fault to the north and to the south of this well, so -- which in Case Number 1 the decline EUR would be approximately 1.2 BCF, and in Case Number 2 approximately 800 million cubic feet.

The recoverable gas in place, calculated off a third Morrison net-pay map, was approximately 1.5 BCF.

The next two tables are the estimation of remaining recoverable gas based on Case 1 and Case 2. In the optimistic Case Number 1, you'd have estimated remaining recoverable gas of 242 million cubic feet. In the Case 2, the estimated remaining recoverable gas is

approximately 662 million cubic feet.

Q. Now, as Mr. Hosey said, the Morrison is the secondary objective, is it not?

A. Correct.

Q. So economics would be based primarily on the Dakota?

A. Yes.

Q. Let's discuss the economics. What is the approximate cost of drilling this well?

A. Approximate cost with directional added in there would be approximately $275,000.

Q. Okay. Is that the total well cost?

A. That would be completed well cost.

Q. Completed well cost, okay. So what is the approximate depth of these wells?

A. Approximate, probably around 3000 feet.

Q. Okay, so they're not exceedingly deep or expensive wells?

A. No.

Q. Okay. What would be the difference in cost in this instance, in this area, between a straight hole and a directional well, in this instance?

A. Probably somewhere around $40,000.

Q. Okay. And as we said, the Dakota is the primary zone of interest, so the additional cost to drill to the

Morrison, even if you have Case Number 1, which is the -- let's say pessimistic, for the new Morrison well, would still justify the cost of drilling that extra additional distance?

A. Correct.

Q. Okay. Were Exhibits 6 through 8 prepared by you or under your supervision?

A. Yes, they were.

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

A. Yes, it is.

MR. BRUCE: Mr. Examiner, I'd move the admission of Cross Timbers Exhibits 6 through 8.

EXAMINER STOGNER: Exhibits 6 through 8 will be admitted into evidence at this time.

EXAMINATION

BY EXAMINER STOGNER:

Q. So the current rate of production on that Number 20 is down to what now?

A. It will produce some, but we have to shut it in for a period of time to let it build up and produce. It could be damaged. We're still investigating that well, as to the problems.

Q. Is it currently under some sort of reduction,

like a ten-day on/five-day off, or something?

A. It produces possibly a week every month. We've had problems with line pressures in the area too, so a lot of times it's off just due to line-pressure problems.

Q. When did this intermittent production start?

A. I believe approximately about a year ago.

Q. Has the water increased, or do you see water production?

A. We saw a slight water production in the beginning, and we thought it might have been coming from a lower sand that was perforated in the well. We set a bridge plug over it and have not seen any real change in production rate.

Q. So that's not what's causing the intermittence?

A. No, it could be a mechanical problem, you know, in the completion of the well, but completion records are pretty poor on the well.

Q. And this well is how old? It's pretty old, isn't it?

A. Yes, it was drilled in 1981.

Q. By Amoco?

A. Yes, correct.

Q. What's the daily rate off the 27 in the Morrison?

A. Current daily rate is approximately 500 MCF a day. It is -- If you look at the plot, it is still falling

on that, about that 85-percent decline rate.

Back in October it was averaging about 670 a day.

Q. What completion techniques are you going to utilize in both zones, in this new well? Do you plan to do the same, or something different?

A. In the Morrison we typically just do an overpressured perforating job with nitrogen. And we typically do a foam frac on the Dakota, which is a -- pretty similar to the past. And we do not have the frac data on the "A" 20, so we don't know if they had problems during the job with the fluid or screening out or anything of that nature, so...

Q. Will this production be downhole commingled, or are you going to have two separate strings of tubing, or are you going to produce up the annulus?

A. As the -- If the Morrison is productive, the Morrison tends to come on at high rates. So as that declines off, we'll make a decision to complete to the Dakota, and they will be eventually commingled, in which we will either do -- make sure that the Morrison has a stabilized rate so that we can do either a subtraction method to split out production or run a production log at the time that the Dakota comes on line.

Q. Do we see much pressure between the upthrown side of that fault, as opposed to the downthrown side?

A. We do not have pressure data on the -- Well, we had pressure data on the "J" 6, which I believe is in the same fault block, and that was a --

MR. BRUCE: That well is in Section 1.

THE WITNESS: Section 1, the southwest quarter. And that was a dip in prior to sales, in which the well had been flowed and only been shut in for a couple days and had 600 pounds. So it had real good pressure for the Dakota after a two-day shut-in. So it probably hadn't fully built up either, since the Dakota is a tighter formation.

And the "A" 20, I do not have pressure data on that well. I have some surface pressure data, not with me here, and I can't recall what that was.

Q. (By Examiner Stogner) Okay, you said a straight-hole well in this area would cost about $40,000. That's completed?

A. No, it would be about $40,000 less than a --

Q. $40,000 less.

A. -- than a directional well.

Q. What kind of minimum production would you -- To spend $40,000 more --

A. Yes.

Q. -- what kind of production rates would you anticipate before Cross Timbers made that decision to directionally drill?

A. To directionally drill?

Q. Yes.

A. I mean, at today's gas prices you don't need much at all, but for that additional $40,000, probably 100 MCF a day.

EXAMINER STOGNER: No other questions. You may be excused.

Have you got anything else in this case, Mr. Bruce?

MR. BRUCE: No, sir.

EXAMINER STOGNER: Does anybody else have anything further in this case?

Mr. Bruce, could you supplement or provide me a rough draft order --

MR. BRUCE: Yes, sir.

EXAMINER STOGNER: -- along with that leasing information?

MR. BRUCE: Yes.

EXAMINER STOGNER: Appreciate it.

(Thereupon, these proceedings were concluded at 9:06 a.m.)

* * *

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25 January 2001

STEVEN T. BRENNER, CCR
(505) 989-9317

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 January 26th, 2001.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002