## STATE OF NEW MEXICO

## ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF:

APPLICATION OF SANTA FE ENERGY
OPERATING PARTNERS, L.P. FOR
COMPULSORY POOLING, LEA COUNTY,
NEW MEXICO,

OPERATOR OF:

OPER

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

January 10, 1991 5:05 p.m. Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on January 10, 1991, at 5:05 p.m. at Oil Conservation Division Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Deborah F. LaVine, RPR, Certified Court Reporter No. 252, in and for the County of Santa Fe, State of New Mexico.

FOR: OIL CONSERVATION

DIVISION

BY: DEBORAH F. LAVINE, RPR

Certified Court Reporter

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EXAMINER CATANACH: At this time, we'll call case 10211.

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MR. STOVALL: The application of Santa Fe Energy
Operating Partners, L.P. for compulsory pooling, Lea County,
New Mexico. Mr. Examiner, call for appearances, and then I'll
state the background of the case for the record.

MR. BRUCE: Mr. Examiner, Jim Bruce of the Hinkle law firm representing Santa Fe Energy Operating Partners, L.P.

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin from the Santa Fe law firm of Kellahin, Kellahin & Aubrey appearing on behalf of Hanley Petroleum, Inc.

MR. STOVALL: Mr. Examiner, this case was actually announced, I believe, this morning as being continued. But for the record, let's state that Mr. Kellahin has filed a subpoena and a request for continuance. Mr. Bruce has agreed to the continuance of the case itself, a substantive case. And the case should be continued to the January 24th docket.

At issue today is the question of the subpoena itself. As I stated, Mr. Kellahin has filed a subpoena requesting certain information with respect to Santa Fe Exploration's Kachina 8 Federal Number 1 well which is an offset well to the well which is the subject of the compulsory pooling application. Mr. Bruce has filed a motion to quash the subpoena. Both of these will be made part of the record in the case.

We are here this afternoon at the request of the

parties to hear argument on the motion to quash and make a determination whether to grant the motion to quash or deny it in which case the subpoena will stand. Without further ado, I think the parties may make their argument. I guess since we're actually here on the motion to quash, Mr. Bruce has the lead.

MR. BRUCE: Mr. Examiner, Santa Fe Energy is before you, as Mr. Stovall stated, on its motion to quash the subpoena issued by the division at the request of Hanley Petroleum. Santa Fe requests that the subpoena be quashed or alternatively that a protective order be issued. The information requested by Hanley pertains mainly to the Kachina 8 Number 1 well which was drilled to the Wolfcamp formation by Santa Fe and is located in the northeast of the northwest of Section 8, 18 South, 33 East. The unit is the east half of the northwest quarter.

Although this is not in the record, at the hearing up coming in two weeks, Santa Fe will testify that it originally wanted to drill the 8 Number 1 well as a north half northwest laydown unit. However, Hanley informed Santa Fe that it didn't want to join the well, farm out, sell its lease or otherwise support the well.

As a result, Santa Fe formed a standup unit and drilled the well at its own risk and obviously at no cost to Hanley. Santa Fe would also like to point out that there are

14 Wolfcamp wells in Sections 7, 8, 17, and 18, not counting the 8 Number 1 well. Thus there is plenty of public information available for Hanley to do its own geological study of this area. Santa Fe used this data from the other wells to decide to drill the 8 Number 1 well. If anything, the 8 Number 1 well only confirmed Santa Fe's geological study.

Nonetheless, what I want to point out is that probably 95 percent or more of the information Santa Fe used to make its decision to drill the 8 Number 1 well and the 8 Number 2 well which is at issue in this case is already available to Hanley.

Now before the 8 Number 1 well was completed, Santa Fe decided to drill the 8 Number 2 well. Hanley now claims it's entitled to all of Santa Fe's data in order to make a decision to join in the 8 Number 2 well. Hanley has requested certain types of data. First, they requested raw data from the 8 Number 1 well such as logs and daily drilling reports. They have also requested reserve calculations, reservoir studies, geologic interpretations and economic studies. These go beyond the 8 Number 1 well. These are more of a regionwide data that they are requesting. I don't really think it can be disputed that all of this data is confidential and proprietary to Santa Fe. And I'm sure that Mr. Kellahin will get up here and tell you that Hanley has a right to this information. We

do not believe that's correct, and there are sound, legal, and practical reasons that Hanley should not be entitled to this information.

I would note first that we're in an administrative proceeding and not before the courts. The OCD was formed to deal with the special problems and the special nature of the oil and gas business. And I believe the OCD has a duty to take special consideration of the unique nature of this business. Every oil company has information that it considers proprietary, and the OCD should protect that information unless there is some absolutely compelling reason for its production. There is none here, and I'll discuss this in a minute.

Second, even if you use as guidelines district court rules, production of the requested material is not required. Rule 1-26 (C) of the Rules of Civil Procedure for the district courts provides that protective orders may be entered by a court holding that materials requested during discovery not be produced or certain matters not be inquired into or that the discovery be done only with certain persons present. The rule specifically mentions confidential data as being protectible.

With these principles in mind, let's look at some of this data that Hanley has requested. First, Hanley has requested the raw data on the Kachina 8 Number 1, as I

mentioned, such as logs and drilling reports. This information is being kept tight by Santa Fe, which is an accepted industrywide practice. Santa Fe has offered this data to Hanley and is still willing to present this data to Hanley if Hanley will commit either to farming out or joining in the well.

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I believe Hanley will say this shows a lack of good faith. It's already been alleged in their application.

However, this is not a practice which -- I should say this is a practice which Santa Fe and other operators have agreed to in the past. I know this case has been brought up before, in the Enron case in case 9907, an OCD case, Santa Fe and Texaco agreed to a similar deal with Enron, the applicant in that case. And that was when Santa Fe was being force pooled.

Santa Fe thinks this is a fair arrangement and it comports with industry practice.

Second, the good faith requirement of the compulsory pooling statutes doesn't require production of confidential data. In fact, we believe that Santa Fe has a duty to protect its confidential information for the benefit of its shareholders or its limited partners. Santa Fe, in trying to make a good deal for itself, is complying with the good faith requirements of the rule. And although we haven't taken testimony on that, we believe that at hearing we will show our good faith.

Now as to information such as reservoir studies, geological interpretations, reserve calculations, like I said, Hanley could obtain the vast bulk of this information from the public records. Instead it wants to benefit from the considerable effort put forth by Santa Fe both geological and engineering work in building this prospect, but Hanley wants to do it at no cost to itself. This should not be permitted. What Hanley wants in effect is to see the opinions of Santa Fe's experts because it must be unwilling to pay for its own. I would also point out that in rule 1-26 (B), the rule provides that a party seeking discovery from an expert should pay that expert a reasonable fee for his time. If production of these expert opinions is ordered by the division, Hanley should be required to pay Santa Fe a fee, which we think would be substantial based on the effort put into it, for the efforts Santa Fe took or it made in putting this prospect together. However, because of the highly proprietary nature of the material, I urge that the OCD just not order it produced in the first place.

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Hanley has also requested Santa Fe's economic studies. Now Santa Fe is extremely adamant about not giving up that information. For one thing, I think you could ask the witnesses in this room who are still listening to this case, economic data varies from company to company. And we fail to see how that would benefit Hanley, first of all. Second,

revealing it to third parties may give others a competitive advantage over Santa Fe. We do not think that is proper.

Hanley has not shown the reason it needs this data, and the OCD should not order it produced.

Once again, in summary, I would like to reiterate that the vast bulk of the data on the south Corbin-Wolfcamp pool is publicly available to Hanley. Hanley has not shown a sufficient need for the documents, and there is no requirement under the pooling statutes that Santa Fe produce this data to Hanley. As a result, Santa Fe urges the division to quash the subpoena. And if production is ordered however, Santa Fe requests that it be produced only to the hearing examiner to aid in his determination of the case. If that is not done, we believe that Santa Fe must be compensated for the labors of its experts and the data of course must remain confidential within the OCD. Thank you.

EXAMINER CATANACH: Mr. Bruce, is that what you were referring to when you cited the protection order, that this information only be disclosed to the examiner?

MR. BRUCE: Yes.

EXAMINER CATANACH: Mr. Kellahin?

MR. KELLAHIN: Thank you, Mr. Examiner. Let me respond to Mr. Bruce by dividing my response into three different areas for your consideration. The first area is to talk about discovery and what would be permitted and allowed in a context

within district court and how that is translated and applied to administrative agencies such as the division, second of all, to address the question of relevancy, and then finally to talk about the confidentiality.

We already have in place before the division examiner a set of rules and regulations of which you're eminently familiar. But unfortunately, for whatever reason, the discovery practice that is available before this division is not often exercised. It is a discovery practice that parallels discovery practice in the district court. Mr. Stovall can tell you, as I think Mr. Bruce would agree, were we in a district court posture, I would be getting all the information on this subpoena. There would be simply no question about it.

Mr. Bruce attempts to hide behind the guise that somehow the practice before this regulatory agency should be different. Just the opposite is true, Mr. Examiner. Let me refer you to a couple of points that demonstrate why Mr. Bruce is wrong about that concept.

I made a copy of your rules and regulations of procedure just to have a quick reference here. Rules 12-11 and Rules 12-12 deal with the attendance and production of evidence at hearings. Rule 12-12 is the rule of evidence. It doesn't take a moment to read that and see the broad nature of what you can accomplish as a division examiner when you

require people to appear before you. It talks about applying in a relaxed manner the types of rules we have before district court proceedings in a trial by a district judge. Under the discovery rules which are 1-026, there are broad latitudes given to all parties. The theme of that process is to have fairness. It is eminently unfair to any party not to have access of everyone's relevant data, not only so the trial examiner can see the data but so both sides' experts can utilize that data and come to whatever conclusion they want. It does not serve the legitimate purposes of justice to suggest that the hearing examiner can look at this data without having it tested by the opposition. And that's what we're dealing with, an adversarial process where all parties are dealing with a level playing field and the ability to use the data regardless of the source.

And it matters not who went to the expense of generating that data. The proprietary nature and the expense of generating that data is a bogus argument. Regardless of who paid for it, it's discoverable in district court. When you look at your own procedures for handling well logs, it's interesting to note rule 1105. I've got some copies here of that one for you. In the context of a hearing before this division and the commission, there are no confidentiality rules. What is brought before you cannot be held in confidence. This is a public access body, and any public

member is entitled to the information introduced before you as a hearing examiner.

The commission has taken care of the problem Mr. Bruce raises with regards to the logs because if you'll look at the top of the second page of rule 1105, some of the information I seek is the information that would be produced on the C-105 and the logs. And what it does is it gives an operator a 30-day grace period where when he goes out and has a new well, a new discovery, it gives him 30 days to consolidate his acreage, take benefit of that knowledge, and go out and lease his acreage. But after that, it's public knowledge, and he's required to file those logs.

MR. STOVALL: Mr. Kellahin, do you mean 30 or 90 days?

MR. KELLAHIN: I'm sorry. 90 days. He's required to

file the logs and file the C-105. But look at the last
sentence, notwithstanding that 90-day period, that
information, if pertinent, can be introduced in any public
hearing before the division or its examiners regardless of the
request that they be kept in confidence.

Mr. Bruce wants to tell you that somehow we're special. Administrative agencies have some kind of different rules they play the game by. It's not a game of hide and seek, Mr. Examiner. We're entitled to have the data.

Unfortunately, we don't yet have a case before the New Mexico Supreme Court from the Oil Conservation Division, but I will

suggest to you I think it will follow the case I'm about to share with you. It's a case reported before the New Mexico Supreme Court. Judge Sutin wrote it back a number of years ago in 1975. They thing's been in place for 15 years, and it talks about the fact that discovery rules, all of them, are available before a regulatory administrative agency. I'll share that with you and opposing counsel. I didn't bother to search farther. There's probably other references to the fact that we're all playing by the same rules. And I guess I'm surprised that lawyers that operate before this agency don't take advantage of discovery more often. But there's no reason we can't. And in this case, it's compelling, Mr. Examiner, to have available the information from the Kachina 8 Number 1 well in the northeast of the northwest of Section 5 -- of Section 8 in order to judge and evaluate what's going to happen to my client.

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Hanley has filed its own competing forced pooling application against Santa Fe Energy. That information was certainly relevant enough that Santa Fe Energy sought to utilize Mr. Thoma's testimony and introduced in the case we just heard earlier today, case 10210, on Exhibit Number 4, his geologic interpretation of that carbonate utilizing as a key component of his justification for that unorthodox well the Number 8 Kachina 1 well. If they can utilize that before this examiner in a public forum, then they have waived any

confidentiality if it ever existed so that I should have that information available to my own geologist so he can independently judge the quality of that information and reach his own conclusions. Santa Fe Energy by their actions in that previous case have waived the confidentiality notwithstanding what occurred at the end of that hearing. I will suggest to you that the division has no authority to seal an exhibit or preclude me from having it.

Let's look for a moment at the relevance of why the offsetting well for which I seek the data is important to my client. You can look at Mr. Thoma's Exhibit 4. I have got an exhibit that we would use at our hearing, and I will show it to you as simply a way of illustration of why that one Wolfcamp completion by Santa Fe is now so critically important as a key component to various elements with regards to the competing forced pooling applications of all parties.

(Hanley Exhibit No. 1 was marked for identification.)

MR. KELLAHIN: I'll mark this as Hanley Exhibit Number 1 for purposes of this motion, Mr. Examiner. It is the Corbin area. It shows an indication of the producing wells in this area and the formation in which they produce.

One of the critical elements is the risk involved to whoever is decided by the division to be the operator, whether it's Hanley or Santa Fe Energy. There's a component

of risk. And it's to be assessed against any nonconsenting working interest owner in that 80-acre spacing unit with regards to either the Wolfcamp or any other formation. You can see that the development of the Wolfcamp to the south, either on this display or in Mr. Thoma's Exhibit 4 has been extended by the Kachina 8 Number 1 well in section 8.

Look how important that is to you as an expert and to my experts in extending that carbonate in the Wolfcamp.

It's going to make significant difference as to the risk involved whether Hanley takes it or whether Santa Fe takes it.

And if you look at that spacing unit, it is Hanley which has the single largest working interest in that spacing unit.

There is no other single working interest owner in that spacing unit that's got as large as an interest as we do.

The other key component, though, and one that Mr. Thoma has not shown you is the fact that this location or the spacing unit is approximately equal distance between the Wolfcamp and the Bone Springs. There's a Bone Springs component to this case that is very relevant. The Bone Springs oil production is on 40 acres, and you can see where it is off to the north and west. In this case, there will be a discussion and a decision by these experts about the potential of the Bone Springs and where you locate the well in the spacing unit to optimize or minimize the risk.

An argument is created that's relevant that this

could require whoever is the operator to allocate his costs between the two pools. We have a split risk situation between the Bone Springs and the Wolfcamp. And again the Kachina 8 Number 1 well plays a critically important point in understanding the relevancy of that argument. The documents we seek to have produced will give us information about the tests of this well. It will give us information to determine whether or not we'll need to modify any mud program, any casing cementing program, how to analyze and judge the qualities of the AFE. There will be a dispute between these parties over the well costs.

Inherently involved in that is an economic argument. Mr. Bruce tells me it's not relevant, but you know it is, which operator can drill this project at the least expense to all interest owners. And one of those inherently is the economics of the project. We think we're entitled to that information, and we ask for that information. If there's production information, we're entitled to have it. It is not available to us in the general public. We believe we're entitled to have that because it is relevant.

Finally, Mr. Bruce wants to hide behind some claim of confidentiality. When you look at rules of discovery, 1-026, it talks about trade secrets. By stretch of imagination, maybe you can characterize some of this as some kind of trade secret. I really doubt it. The overwhelming

abundance of decisions with regards to protective orders for proprietary information almost always requires disclosure to the other litigants, and the protective order would preclude discovery and disclosure to third parties outside the litigation.

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And in fact, that's what happened in Mr. Bruce's case in the Enron case. That's the one where he and Mr. Carr, and Bruce was on the other side of that argument that day, but back in May of '90 in case 9907 it was order number R-9190. Unfortunately, there was no record made on the subpoena problem. But it is my understanding, and Mr. Bruce can correct me if I'm wrong, that there, Mr. Stogner was in a position where Enron had their claim of proprietary data for the offsetting well, and Mr. Bruce was seeking it for Santa Fe in order to handle the forced pooling case. Mr. Stogner decided that in order to keep a level playing field for all parties that he would deny Enron the opportunity to use the information from that well. And they couldn't have it, couldn't use it, couldn't introduce it. Well, I think after the hearing, everybody agreed that that was not an appropriate solution. And therefore, the parties agreed to a confidentiality and exchanged the data.

I would suggest to you that the argument about paying for whatever it cost to generate the logs is totally inappropriate. What Mr. Bruce has confused is that under the

discovery rules, if I take his expert's deposition, I'm obligated to pay his transportation and his hourly rate while I ask him questions. But I sure don't have to pay for the value of the log that they ran that's in their file. That's not how it's done.

I believe it's appropriate, Mr. Examiner, that the commission make a substantial step forward as it already has with regards to hearings by ambush, playing hide and seek with data. With Mr. Stovall's assistance and recommendations, the division has for the most part avoided hearings by ambush. At least now we know who's going to come beat on you. They're required to file their prehearing statements the week before. And so there is that element of unfairness removed from the process. But there's nothing fair about letting one party keep information that is necessary in order to have a fair adversarial process before this division from disclosing it to the other side.

I said awhile ago, I think Santa Fe's waived it. They showed the isopach a while ago. It can't mean much to them if they showed it in the case before. They're just trying to keep us behind the stick here. The options I see for you, Mr. Examiner, are to deny the motion and require the documents to be produced. I think that's the right answer.

Another alternative would be to dismiss their application. If they're not prepared to make their

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information available and to test their beliefs and conclusions based upon that data, let them dismiss their case. You could continue their case until the 90-day period has fully run. Let them have another few weeks to lease up the rest of the acreage. My understanding is there's no acreage available in Section 8 for any third party to take advantage It's a done deal. We're dealing with the people now that we'd be dealing with at the hearing. You could, I guess, do what Mr. Stogner did and say that Santa Fe can't use the data. It's sort of like That's really only half an answer at best. walking in with your hands behind your back and half a blindfold on. If they can't use it, there's no reason I shouldn't be able to use it. And we need it for all the reasons I've expressed as to why they're relevant. And I think for the most part lawyers have gone very far out of the way to avoid discovery.

You know, these engineers and geologists don't want to spend their time taking depositions. Rules allow it. And for the most part, we don't do it because the information is generally available and we let our own experts work with it. But here where you have a key well that is on the edges of this reservoir that plays an important part in deciding how to proceed, I think you do a disservice to what you are obligated to do if I'm not allowed to have that information. We would request that the motion be denied and that the subpoena be

enforced and the documents be produced today.

MR. BRUCE: Do I get a rebuttal, Mr. Examiner?

MR. STOVALL: Yeah, if you make it concise, because I do want to perhaps address some questions. Go ahead.

MR. BRUCE: My friend Tom, of course, has been on both sides of this issue before too. He's not the only one. This is a limited practice here at the OCD. But contrary to what Tom says, this wouldn't be a step forward for the industry or for the OCD. It would be a step backward. I think if you asked any, if you asked the vast majority of companies, there are times when they just have to keep information confidential. We believe this is one of those cases.

Now, first, Mr. Kellahin says that district court rules apply. Then he says confidentiality rules don't apply although district court rules have a confidentiality provision. Then he pulls out a case that says district court rules do apply. This case says rules similar in scope. It doesn't mandate exact district court rules apply in this case. I think the bottom line is that the OCD does have flexibility in addressing this issue. And there is a reason many operators don't take advantage of the discovery rules. Like I said, I think it's a step back. They don't want to be flogging their opponents or their company's competitors in the oil business for this information all the time. They have lots of information they want privileged. And they recognize

that there is information out there that other companies have that they want privileged, that the other companies want privileged.

I think what you're going to find is if you do deny my motion is that in virtually every case, every compulsory pooling case, unless you're dealing with unleased mineral interest owners or people who can't be located, you're going to have a counterapplication, you're going to have subpoenas, et cetera, et cetera, et cetera.

As to the hearing in case 10210, Santa Fe was under severe constraints. It had to present evidence to support its case. It has an expiring farmout. It's in a bind. It did make a motion to protect that exhibit until the OCD can decide this issue. And there is precedent for the OCD holding matters confidential, as I mentioned informally to Mr. Stovall, I believe, testimony regarding the potash area, certain potash industry information has been kept confidential. I think everybody in this room who has had anything to do with drilling a well in the potash area realizes how tough it is to crack that information held by the potash industry.

MR. STOVALL: Let me point out, Mr. Bruce, that I believe any information being held confidential with respect to the potash, I don't believe is on file -- and the examiner can correct me -- with us. I believe it is filed with the state

land office or the bureau of land management.

MR. BRUCE: Okay.

MR. STOVALL: Under that impression and I don't know of any other case.

MR. BRUCE: I don't want to get into it any further. The other case that Mr. Kellahin did mention, the Enron case, the factual situation was much different there. There was one well in the area. Texaco and Santa Fe desired that information. Enron wouldn't give it to them. In this case, as I stated before, there's 14 Wolfcamp wells in the area which provide the vast bulk of the information Hanley wants. We request that the motion be granted.

EXAMINER CATANACH: Is that it?

MR. STOVALL: I'd like to ask some questions just for the examiner's guidance in this issue. I think you have made the distinction in the division in examining the subpoena and the motion. In examining this well, there are essentially two types of data being requested. One is the raw data, the uninterpreted physical data regarding the well, and the other is interpretive data; that is, the interpretation of the raw data combined with whatever other data is available by Santa Fe's technical folks.

I'd like to focus for the moment on that interpretive data which is really the work product of Santa Fe's people. And Mr. Bruce has argued and it is part of his

motion that that work product, that that evaluation should not -- regardless of what we do with the raw data, the evaluation materials should not be made available because it is in fact the work product of Santa Fe and is not a -- it represents their expert analysis of the raw data on what's available.

MR. KELLAHIN: Let me draw a distinction quickly. Work product applies to attorney work product?

MR. STOVALL: I'm sorry. That is not the term I mean to use, not in that sense.

MR. KELLAHIN: In the conventional nonlawyer sense, you're talking about the engineer's work product?

MR. STOVALL: Yes.

MR. KELLAHIN: In the lawyer sense, it's only the attorney work product that's subject to protection under a privilege, which I don't believe Mr. Bruce --

MR. STOVALL: That's not even an issue, and I did not mean to use it as that term of art that you're referring to. I think on those items, for example, looking at the subpoena, the items requested, item number 6 is an interpretive type of information. You take raw data and crunch the numbers in some way to come up with something. That's reserve calculations. Item number 7, the reservoir studies, that certainly is interpretive type evaluation. Item number 10 certainly is interpretive, geologic interpretation. You take the raw data

and tell us what's out there. Item number 8 is also in-house created from information. I think it's in a little bit different category because it has to do with, I think, economics.

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But for the moment, Mr. Kellahin, is there not a reason why if you could obtain the raw data that Hanley couldn't make its own evaluations and would it not want to make its own evaluations as to whether to participate and invest in this well?

MR. KELLAHIN: Certainly so and also undertake operations, but separate and apart is our absolute right to test the conclusions and interpretation of their experts. And in the district court discovery forum, we would be entitled to have their exhibits. We would get Exhibit Number 4, Mr.

Thoma's interpretation of his geology. And we would have that prior to the hearing, and we could prepare our experts for the hearing in that fashion. And I would suggest to you that's really the way we ought to do it here rather than do it by guess and by golly. You might get a more meaningful, well thought out combat of opposing positions if everybody had full disclosure on each side and you came well prepared to worry about what was important. But there is a difference. There is a difference between the raw data and the interpretive data. We've asked for all of it.

MR. BRUCE: Once again I would reiterate. Santa Fe said,

Agree to commit or farm out; we won't give you that data.

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MR. STOVALL: Go back to more. There's agreement then that there is a difference between raw data and interpretive data and they could be separated out in terms of the motion?

MR. KELLAHIN: No question, Mr. Stovall, they could be separated.

MR. STOVALL: One of the interesting issues that comes up in this industry is that it certainly is like no other industry that I know of anyplace in the country. It's the only place where you try to go drill wells that you don't need because of some reason that's not economic. It's also one of the industries, the only industry I know, where people are asked to make investment decisions without access to available information. And that concerns me a little bit in this arena. It's the only industry that I know of where on a regular basis, and it's obviously due to the geophysical nature of oil and gas in a reservoir, conservation laws, where a party can be forced in effect to make an investment either by committing dollars or by in effect giving up their asset for a time to compensate for not paying those dollars. If you get force pooled, you pay for it with your interest plus some risk penalty.

Mr. Bruce, I would be curious to hear from you why a party who is not being asked to invest should not have all of at least the essential raw information available to make a

1	decision whether or not to invest.			
2	MR. BRUCE: The party who is being asked to invest?			
3	MR. STOVALL: In other words, in this case, Santa Fe is			
4	saying, Hanley, we want you to make a decision whether or not			
5	to invest in this next well, but we want you to make it with			
6	less than all of the available and I'll refer to the raw			
7	information for the moment, not interpretive information.			
8	MR. BRUCE: Sure, sure. But Santa Fe really doesn't want			
9	to force pool Hanley. They would prefer, you know, and the			
10	landman testified about that, and it's not necessary today.			
11	They prefer to have partners. They don't want to bear the			
12	whole cost, the whole risk of that well.			
13	MR. STOVALL: I understand. And let me point out, I'm			
14	saying, you're asking them to make a decision without all the			
15	information, not			
16	MR. BRUCE: We're not asking them to be force pooled.			
17	But we are saying either agree to pay your share or farm out			
18	under which they would bear no cost.			
19	MR. STOVALL: Or they have a third option, to be force			
20	pooled.			
21	MR. BRUCE: To be force pooled.			
22	MR. STOVALL: And then make a determination at that			

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the industry says in a situation like this is make an

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point. But what you're saying, what Santa Fe is saying, what

investment decision whether or not to participate or how to

participate, I guess really, you're going to participate in some way in this well. You make a decision how to participate, but we are going to withhold from you some of the information which we have available in order to make the initial decision that there will be a well drilled.

MR. BRUCE: Well, for one thing, like I say, I don't -- I keep sounding like a broken record. But if they would agree to commit or farm out, they'll get everything they want.

MR. STOVALL: But I'm telling you, Why should they not have information before they make a decision to do one or the other?

MR. BRUCE: Well, I, you know, go back to the traditional posture of maintaining information. I mean, Santa Fe is definitely trying to do the best it can for its shareholders. Is that required, to give all the best information that it may have to an opponent?

MR. STOVALL: If Santa Fe were seeking to sell, and they may do this, since it's called operating partners, I assume they have partners in a well. And I believe under investment rules, they're required to make information available to the --

MR. BRUCE: The operating partner, Santa Fe Energy
Operating Partners, this goes into excruciating detail, is a
limited partnership, you know, in the traditional limited
partnership sense. But it does have other partners in deals.
For instance, in this case right here, the leasehold that

Santa Fe owns, and I don't know, it may be in Santa Fe's name, is owned -- its partner in that deal is Heyco.

MR. STOVALL: Notwithstanding whether or not it's Santa Fe and how it operates, drilling deals are sold in the investment marketplace. And those investments are subject to investment regulatory agency regulations such as the SEC or state securities commission. There may be some exemptions that get them out from under it, but the premise is that most investment regulations are that the potential investor should have all information available before they make an investment decision; is that not correct?

MR. BRUCE: I don't know. Did that require a response?

I don't know.

MR. STOVALL: Do you agree with that statement?

MR. BRUCE: In the SEC setting, yeah, but we're not dealing with investment securities here.

MR. STOVALL: Well, we were drawing analogies, and I'm drawing --

MR. KELLAHIN: In the regular business world, the oil and gas operator has the opportunity not to sell his interest if he is uncomfortable that the opponent has not shared all the data. But in this forum, we're going to use the police powers of the State to make that decision for him, and we're going to make them in this context without all the information. I think we've made it even worse than the example you were

citing where at least in the open market that operator has the ultimate benefit of avoiding the transaction.

MR. BRUCE: Mr. Stovall, I mean, like I said, I'm sounding like a broken record. But if they're force pooled, they don't have to pay any money up front. So it's not like a deal selling securities where somebody should know everything before they're shelling out the money.

MR. STOVALL: They have to pay money though. They are committed to paying that money in one form or another, are they not?

MR. BRUCE: It comes out of production. I agree. But they're not being -- I guess this goes back to why forced pooling statutes were enacted in the first place, so people could choose not to put any money up front. But if they're asking -- if they would agree to pay or farm out, they would get all the information. But in the forced pooling context, they're really not paying anything.

MR. STOVALL: Oh, I think I could get into all sorts of -MR. BRUCE: But Santa Fe and Heyco would be taking the
entire risk. And if that well was dry, would Hanley pay
anything? No. The 200 percent penalty or whatever penalty is
assessed is made to induce someone, to help induce someone to
drill that well. So, yes, if you look at it if it is a really
good well and is paying, yeah, Hanley would be paying in some
fashion because they would be paying out of production. But

if that well is a dog, Santa Fe and Heyco just bought the farm on that well and Hanley didn't have to pay a dime.

MR. STOVALL: And Santa Fe and Heyco make the decision to drill that well. Given all those factors, they've got their own money going in. It's in the same bank. And they've made the decision to place their money at risk based upon information which includes the information from a direct offset well. They've got a -- if you're playing poker, they've got one card. They can see all five.

MR. BRUCE: But they made that decision before they had all the information from that offset. They made the decision --

MR. STOVALL: We don't know that. We just know that they now -- and that was not irrevocable until a bit hits the ground.

MR. BRUCE: Well, that's true. But they started proposing this well. Their management made the decision to drill this well before they had all of the information from the 8 Number 1 well.

MR. STOVALL: Uh-huh. And management had the opportunity and still has the opportunity, as I say, all the way along to withdraw from that well. They may have made that decision prior to the number 1 well being drilled and then drilled the number 1 and came back and said, No, we don't want to drill that well. We don't want to drill the second well.

Based upon that information, they made the 1 2 preliminary decision to drill the well. They've now got the information, and they're making -- they're confirming that 3 decision and asking Hanley to go along with that decision. And Hanley doesn't know what that information says with respect to the other information that's available to determine 6 7 whether they agree with the decision or whether they would rather let Santa Fe and Heyco take the risk for Hanley. 9 MR. BRUCE: I mean, Hanley doesn't want to pay or wants to see -- doesn't know if they want to pay, but they do want 10 That seems a little inconsistent too. 11 to operate. 12 MR. STOVALL: We hadn't gotten to that part yet. 13 MR. BRUCE: There's inconsistencies all around. 14 MR. THOMA: Could I speak off the record? 15 MR. STOVALL: Let's go off the record. Mr. Bruce, would 16 you like to talk to your client? 17 (A discussion was held off the record from 5:55 p.m. 18 until 6:05 p.m.) EXAMINER CATANACH: Are you ready, Mr. Bruce? 19 20 MR. BRUCE: Yes. 21 MR. STOVALL: I assume you would like to say something 22 based upon your geologist's --MR. BRUCE: Yeah, just one thing. And I think a couple 23

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people here, it may be I'm not explaining myself, but what

Santa Fe is saying to Hanley is, Look, we will give you the

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data you want, the logs and reports, the raw data. Now after you get that data, after you look at it, then we want you to do one of two things, commit or farm out.

MR. STOVALL: Are you not leaving them the option to go nonconsent on the forced pooling order; is that what you're saying?

MR. BRUCE: That's correct. We do not want them -- we don't want to force pool.

MR. KELLAHIN: That precludes us the option of being the operator and going forward with our own pooling case. That's an empty gesture, Mr. Examiner.

MR. BRUCE: Oh, it's not empty, and the examiner knows it. We would -- well, I mean, that could still leave the issue of operatorship open, if they agreed to commit. I suppose there could be a hearing solely on who operates that well.

MR. KELLAHIN: Every subpoena issued, Mr. Examiner, can always be successfully quashed by a claim that it's confidential. And if you're going to believe that, then you can always hide behind this confidentiality. What we want is the opportunity at this hearing to utilize the same data that they're going to be able to utilize at that very hearing.

MR. STOVALL: Mr. Kellahin, has Hanley filed an application to force pool and seek an operatorship? Is there one filed with the division at this point?

MR. KELLAHIN: We're on the docket for a hearing on the 24th at this moment.

MR. STOVALL: And then I assume we will consolidate these two cases for a hearing at that time?

MR. KELLAHIN: That is the plan.

MR. STOVALL: Mr. Examiner, I think we could sit here for another hour or so and argue fine points and what have you. I think it is probably safe to say that practice before the division has probably been unlike practice before any other adjudicatory body in that there has been a relatively very low flow of information prior to a hearing.

Most parties come to a hearing not knowing what the other party in a case is going to have ahead of time. I'm not sure that that gets us the best type of case. I think the preparation is what makes a better case in front of the division. I've also got some concerns about some basic rights, comments I made earlier with respect to having access to available information to make a decision.

I think in the Enron case, which Mr. Bruce and Mr. Kellahin have referred to, I think we took one approach to leveling the playing field, if you will. We'll give you an equality saying, If you don't give it, you can't use it. I think we could stick with that approach if we wanted to. I don't think that necessarily provides the best result. I don't see a good, sound argument why Hanley should not have

access to raw information, information which has not been interpreted in any way by Hanley. On the other hand, once they obtain that raw data, then they can make their own evaluations and make their own decisions based upon the same information.

I think interpretive data, what I would identify as interpretive data would be referring to Mr. Kellahin's subpoena, item number 6, any and all reserve calculations including but not limited to volumetric calculations of the reserves including recoverable reserves; item number 7, any and all reservoir studies; item number 8, any and all economic studies, including but not limited to estimates of pay out and rates of return; and item number 10, geologic interpretations by which you justify the well and evaluate its risk.

One other comment on the record is in considering this case, another option that we had discussed is a policy matter is that if information isn't available, it would be indicative of a reduced risk on the pooling operator's part. Certainly if he had more information, he wouldn't be entitled to the risk. I think that, again, is sort of a skewed way to deal with a difficult question. And I think the division at this point is ready to deal with this difficult question of getting information ahead of time. My recommendation, Mr. Examiner, is that this subpoena be quashed with respect to items 6, 7, 8, and 10, that it be allowed to stand with

respect to the other information, noting that item number 5 referring to production information, I would identify that as just simply raw volumes.

I would advise the examiner and the parties also that certainly what works for the goose works for the gander and discovery works both ways. Historically, it has been most of the discovery comes up in forced pooling cases, and most of it comes from an opponent to a forced pooling application. I don't think that that necessarily is the limitation. I would advise also, Mr. Examiner, that this is a very narrow precedent in terms of the division's moving towards a more open discovery. It is not our intention to move in the direction of a public service commission or federal energy regulatory commission which would take three and a half years to decide what they're going to look at, and the rest of the world kind of stops while they do it.

I mean, any discovery that is going to be here is going to be direct, concise. Also it states that part of the reason or one of the reasons for granting, allowing the subpoena on the specific items that are not being quashed is that this is directly relevant information, it is an offset well to the same pool by the same operator, and the information is not available from any other source. I don't think that this necessarily would indicate that Santa Fe would be required to produce all of its information on other wells

in the Wolfcamp in the area. As Mr. Bruce pointed out, that information is available from public records. And it's not the division's job to force one party to do the other party's research and evaluation.

Given that, my recommendation, Mr. Examiner, is that, as I say, items 5, 6, 7, 7 -- excuse me, 6, 7, 8, and 10 on Mr. Kellahin's subpoena be quashed and that the subpoena stand with respect to the other items.

Oh, one other thing. With respect to the protective order, Mr. Bruce, I'm going to recommend a modified protective order different from what Mr. Bruce has suggested, that this information be made available only to Hanley. And, of course, the examiner, should it become relevant, Hanley should be directed not to release the information to any other party prior to the hearing. At the hearing then, it becomes a question of what to deal with, what is submitted in the record. I recognize also that my recommendation does not address the issue of exhibits to be presented in the given hearing, and we haven't gotten into that which could get into those interpretive areas. We're dealing only with raw data at this time. And, Mr. Examiner, after you make a ruling, we're going to have to make some determination with respect to Exhibit Number 4 in case -- was it 10210, I believe?

EXAMINER CATANACH: The motion to quash by Santa Fe Energy is hereby sustained as to item number 6, 7, 8, and 10

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Petroleum Corporation. And that's the ruling on that. 2 MR. KELLAHIN: The subpoena requires production as of today's hearing, Mr. Examiner. MR. STOVALL: Mr. Kellahin, would you be willing to work 5 with Mr. Bruce and his client as to -- we don't want to get real technical and --7 MR. KELLAHIN: I understand. 9 MR. STOVALL: -- establish contempt. But I think an 10 adequate -- Mr. Bruce, what are you able to do as far as those 11 specific --12 MR. BRUCE: Let me talk about it with my clients. I don't even think they have all the data here today. 13 MR. STOVALL: Well, I would just urge you to reach an 14 15 agreement on that based upon the --MR. BRUCE: I'm sure we can. But since the case wasn't 16 17 being held today, we certainly did not bring the data with us. 18 MR. STOVALL: I understand that. And I'd hardly suggest 19 that we'd hold Santa Fe in contempt for that failure. MR. BRUCE: I will call Mr. Kellahin tomorrow. 20 MR. STOVALL: Mr. Examiner, nothing further in this case. 21 However, I'm going to suggest that we're going to have to 22 23 reopen case 10210 to discuss Exhibit Number 4, and I think that should be discussed in the context of that case because 24 an order will affect that case. 25

in the subpoena issued by the division as requested by Hanley

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EXAMINER CATANACH: Reopen briefly case 10210 and briefly 1 discuss Exhibit Number 4 that was entered by Santa Fe in that 2 3 case which was a geologic interpretation isopach map. I'll point out, as the record will reflect, MR. STOVALL: 5 Mr. Kellahin does not represent anybody who is a party in that I think he's properly using geologic interpretation. 6 would suggest that while there's nothing in our rules that specifically addresses the issue, I think that the record in 8 9 that case can be kept confidential until such time as an order is issued in that case. 10 MR. BRUCE: That's acceptable. 11 EXAMINER CATANACH: Then that's what we'll do in that 12 case, keep the record confidential until an order is issued in 13 this case. We'll take case 10210 under advisement. 14 15 hearing is adjourned. 16 (The foregoing hearing was adjourned at the approximate 17 hour of 6:20 p.m.) 18 I do hereby certify that the foregoing is 19 a complete record of the protectings in 20 the Examiner hearing pri Took to. 1021 Panuary 10 21 heard by me on\_ . Examin# 22 will Catan Oll Conservation Division 23 24

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1	STATE OF NEW MEXICO )	
2	COUNTY OF SANTA FE )	
3	REPORTER'S CERTIFICATE	
4		
5		
6	I, DEBORAH F. LAVINE, RPR, a Certified Court	
7	Reporter and Notary Public, DO HEREBY CERTIFY that I	
8	stenographically reported these proceedings before the Oil	
9	Conservation Division; and that the foregoing is a true,	
10	complete and accurate transcript of the proceedings of said	
11	hearing as appears from my stenographic notes so taken and	
12	transcribed under my personal supervision.	
13	I FURTHER CERTIFY that I am not related to nor	
14	employed by any of the parties hereto and have no interest in	
15	the outcome hereof.	
16	DATED at Santa Fe, New Mexico, this 11th of	
17	February, 1991.	
18		
19		
20		
21	ejuly Salan	
22	DEBORAH F. LAVINE, RPR My Commission Expires: Certified Court Reporter	
23	August 6th, 1993 CCR No. 252, Notary Public	
24		
25		

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CHAIRMAN LeMAY: Case No. 10211.

MR. STOVALL: Application of Santa Fe Energy Operating Partners, L.P., for compulsory pooling, Lea County, New Mexico. Mr. Chairman, this case actually was on the examiner docket for January 10, 1991. The substantive case was continued at that time to examiner docket for January 24, 1991. It does not appear on the commission docket but it comes before the commission in sort of in the form of an interlocutory appeal -- I guess is the best way to describe it -- on an order issued by the examiner with respect to a subpoena.

Energy Operating Partners seeks to compulsory pool the interest of Hanley Petroleum, Inc., into an 80-acre proration unit as identified in the docket. It's in the west half of the northwest quarter of Section 8 Township -- I'm trying to find the township and range here. Just a moment.

Mr. Bruce, can you help me?

MR. BRUCE: I believe it's 18-33.

MR. STOVALL: 18 South 33 East; is that correct?

Hanley Petroleum owns a -- I believe it's a 50 percent working interest in the subject proration unit.

Santa Fe Energy prior to filing this application drilled a

25 | well -- I believe it's a Wolfcamp well -- directly

offsetting the subject proration unit. Hanley Petroleum,
Inc., filed a subpoena requesting certain information. The
commissioners should each have a copy of that subpoena
duces tecum before them. Santa Fe Energy has filed a
motion to quash the subpoena.

At the January 10th hearing Examiner Catanach heard argument, and based upon the argument he quashed the request for items No. 6, which includes any and all reserve calculations, including but not limited to volumetric calculations of reserves, including recoverable reserves; item No. 7, any and all reservoir studies; item No. 8, any and all economic studies, including but not limited to estimates of payout and rates of return; and item No. 10, geologic interpretations by which you justify the well and evaluate its risk.

CHAIRMAN LeMAY: Excuse me, Mr. Stovall. I think before we get into a lot of this let's call for appearances in the case.

MR. BRUCE: May it please the Commission, James Bruce for the applicant Santa Fe Energy Operating Partners L.P.

MR. KELLAHIN: Mr. Chairman, I'm Tom Kellahin of the Santa Fe law firm Kellahin, Kellahin & Aubrey, appearing on behalf of Hanley Petroleum, Inc.

MR. CARR: May it please the Commission, my name is William F. Carr of the law firm of Campbell & Black, P.A.

of Santa Fe. I represent Harvey Yates Company and also like to enter an appearance on behalf of Enron Oil & Gas Company.

CHAIRMAN LeMAY: Are you all presenting witnesses for this or -- Mr. Bruce?

MR. KELLAHIN: Mr. Chairman, we discussed this with Mr. Stovall, and unless the commission has a need to ask any questions, I do have some Santa Fe people here, but we had informally agreed to put it forth on arguments.

CHAIRMAN LeMAY: Mr. Kellahin?

MR. KELLAHIN: Mr. Chairman, I did not bring witnesses to present to you today. I had understood based upon the telephone conversation with counsel that this was to be an attorney's argument on the subpoena, and so I'm simply unprepared with witnesses. If that is the desire of the commission, I have none today.

MR. CARR: I would confirm it was my understanding this was simply argument of counsel. We discussed bringing witnesses, and because of what I understood we did not do so.

CHAIRMAN LeMAY: Mr. Stovall, I'm sorry to interrupt you. I understand through what counsel said you can represent what is going to take place, and what has taken place. So with that concurrence, please continue.

MR. STOVALL: I have identified the items which were

stricken, which were quashed, in the subpoena request submitted by Mr. Kellahin. To summarize briefly -- unfortunately we do not have a transcript of the January 10th hearing. There was no written order issued, but I think it's -- briefly summarized, rationale used by the examiner was that those particular items which I have identified were the result of an interpretation by Santa Fe Energy of the information which was available, represented proprietary information with respect to their evaluation of the data rather than raw data itself.

The other items on the subpoena, items 1, 2, 3, 4, 5, and 9, represent raw data without interpretation as viewed by the examiner; and it was the opinion of the examiner based upon my recommendation and advice, I believe, that because Santa Fe is seeking to invoke the power of the state to compel the participation of Hanley's interest in the proration unit that Hanley was entitled to see the raw data which was held not available through other sources, public records, but which Santa Fe had in its possession and which might be the basis for its decision to drill the well; that Hanley should have equal access to that raw information but was not entitled to access to Santa Fe's interpretations of any data; nor was Santa Fe required to produce -- pardon me -- requested to produce in this case information which was available from other

sources or which was not directly related to a direct offset well.

I think that's -- if counsel can concur -that's a fair summary of what happened at the January
hearing. At this point Mr. Bruce on behalf of Santa Fe
requested a hearing before the commission to review that
decision -- the rules contain no procedures for this, and
we are adopting the procedures as we go along. And I
concur this is a matter that represents a change, perhaps,
in commission policy. It's an issue that's come up before,
and it is appropriate for the commission at this time to
provide guidance to the division based upon arguments heard
today. At least in the context of this case, and hopefully
guidance that can allow counsel and parties before the
division and the commission to know what the rules are with
respect to discovery in cases of this nature.

CHAIRMAN LeMAY: Since this hinges on the information that was both requested and that the examiner's opinion on what should be allowed, is there just a list of those items? I can't seem to find it.

MR. STOVALL: You should have a packet. The top sheet is Mr. Kellahin's letterhead.

CHAIRMAN LeMAY: Within here there --

MR. STOVALL: Starting on the third page is the subpoena itself.

CHAIRMAN LeMAY: I've got it.

MR. STOVALL: I will point out, Mr. Chairman, that this — the original subpoena was signed by you as the director on January 3rd, and again that was done, for the record — just so that it's clear on the record, when a subpoena request is submitted to the division, I have advised the division director that that should be ministerially signed, and it is up to the party who is being subpoenaed to challenge that subpoena. The division should not prior to a motion to quash question a subpoena. So that's the initial procedural process.

CHAIRMAN LeMAY: So the signing of the subpoena by the director does not either endorse nor in any way prejudice that subpoena as to whether it should be upheld or not.

MR. STOVALL: Correct. It's just purely a ministerial function at that point.

CHAIRMAN LeMAY: Thank you, Mr. Stovall. At this time is it your pleasure gentlemen to each present your arguments, and then -- you're looking for -- I guess not an order but what kind of proceeding would come out of the commission?

MR. STOVALL: I think we would ask the commission, and perhaps I think it would be appropriate that after this hearing that there be a written order issued upon which the parties could rely. It is -- as I say, there was no

written procedure for it. It's in effect a de novo review of a procedural ruling by an examiner, an oral procedural ruling, and this is an opportunity for the commission to issue guidance. It comes on the motion of Mr. Bruce, so he is actually the moving party on this particular motion to quash. I suggest what we're doing is in fact reviewing the motion to quash the subpoena again, and the commission will issue an order.

CHAIRMAN LeMAY: Mr. Kellahin.

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MR. KELLAHIN: Mr. Chairman, I would like to comment on Mr. Stovall's statement that this is a de novo proceeding. Let me describe generally what I believe the proceeding should be. The typical format, if this commission adopts it, is already outlined in the discovery rules before district court. The mechanism is that a party in district court seeking the production of relevant documents would have the district court clerk issue a subpoena, not unlike it is done here. There is no reflection on the issuance of the subpoena. It is a ministerial task. It is served on the opposing party. this instance Mr. Bruce accepted service of the subpoena. It is then his obligation to either abide by the production requirements of the subpoena or timely move for protection of the court from the requirements of that subpoena.

production of documents at the examiner hearing on January 10th. Prior to that hearing Mr. Bruce filed his motion for a protective order or in the alternative quashing the subpoena. We spent some two hours before Examiner Catanach developing a record with regards to his decisions in that matter.

I believe it is important for this commission to actually review and read the transcript of the record before the examiner, and I would ask that record be incorporated in the proceedings today, because this is not, in my opinion, a de novo process. You're acting as an administrative body overseeing the director and determining whether or not he has breached his discretion through the examiner in having only a portion of the subpoena quashed and requiring the balance of the documents to be presented. I do not believe this is an opportunity for Santa Fe to have a second try at denying the documents.

In addition, my second comment is that in honoring the subpoena, Mr. Bruce's client is obligated in district court, and I would contend before the proceedings of the division, to actually produce the documents in the hearing today. My understanding is that Mr. Bruce has had his client bring the documents. They've not been disclosed to me, but they should be available to the commission as they would to the district court to examine en camera so

that you make your own independent judgments with regards to relevancy and the nature of the confidentiality of those documents. You do not leave it up to the objecting party to make those conclusions for you upon which you must rely in a vacuum. It is up to you then to examine the documents if you deem them appropriate.

His claim now is not of relevancy but of confidentiality. My understanding is that under district court rules if that is the claim, then I am entitled to the documents and that the court will direct a confidentiality agreement be executed by the parties requiring my client and all their agents not to disclose proprietary, confidential information to outside third parties, but we can use it for the purposes of the hearing.

It would be my contention in this case that that is the proceeding available to us. And so with response to the procedure, I think this is not a de novo procedure, and I think that you have the ability to examine the -
Mr. Catanach's decision with regards to your actions today, and, second of all, with response to the documents is what we're looking at. They should be available to you in the hearing room so you can actually see the available raw data that Mr. Catanach has said we're entitled to see.

CHAIRMAN LeMAY: Thank you, Mr. Kellahin. With regards to the procedure, Mr. Bruce would you please like

to comment on that?

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MR. BRUCE: Just very briefly, Mr. Chairman. There is case law that says discovery rules of administrative bodies are similar to those of district court. It doesn't say that they're identical. Therefore I don't believe there is an absolute right of Hanley Petroleum to these documents.

Further more, in looking at the statutes, whether this is a de novo proceeding or not, I don't think, -- as far as I can tell that anything that is appealed to the commission is de novo unless it is an original proceeding. So that's something the commission has to decide. But I don't agree with Mr. Kellahin's position.

CHAIRMAN Lemay: Would it be your suggestion that we incorporate the record however --

MR. BRUCE: I don't have any problems with that.

CHAIRMAN LeMAY: -- and issue an order so there should be some guidance for further action?

MR. BRUCE: Yes.

CHAIRMAN LeMAY: Mr. Carr, do you have any comment on the procedure?

MR. CARR: The only comment is I believe that at the end of this proceeding an order should be entered where it addresses whether or not the subpoena is going to be quashed, and I think if the commission would provide some

guidance in that order other than just making the ruling, it would be of value to everybody practicing before the commission.

CHAIRMAN Lemay: In the event that we are looking at this precedent setting -- so you all have some guidance -- is it your understanding that we should go beyond those items suggested here and cover other possible items of the confidentiality and nonconfidentiality and include those in the order? Mr. Bruce.

MR. BRUCE: Mr. Chairman, I'm not sure how far you can go, but it probably would be helpful in the future. As I have even stated in my argument, I believe now we currently have three examiner hearing cases before the division and, of course, just like in a court, each examiner's decision in that particular case might be a little different unless there is some guidance from the commission as a whole.

Therefore, although it isn't just the forced pooling case, as you well know there are many other cases as well that could involve confidential information. Any guidance that could be given would be appreciated.

CHAIRMAN LeMAY: Thank you, Mr. Bruce. Is that your desire, too, Mr. Kellahin?

MR. KELLAHIN: I'm afraid Mr. Bruce and I are not going to agree on much this morning, Mr. Chairman. It would appear to me that this case is specific with regards

to the items still being required to be produced under the subpoena, and that is the call of the case. This is not a rule-making procedure for which there has been general notice to the industry about what policy or rules the division should develop for discovery. I would contend and I will propose to you in my arguments that those rules are already in place, and that you should limit yourself to a decision with regards to this specific case and these specific facts. To go beyond that I think borders on an area where you're very vulnerable in whether you decide to do it as a matter of policy, or these things are best served on a case-by-case basis in a narrow framework as we have presented for you today.

CHAIRMAN LeMAY: Thank you. I think we have in the audience additional comments or at least concerning how far we --

MR. PEARCE: If I may, Mr. Chairman, I'm W. Perry

Pearce, with the Santa Fe law firm of Montgomery & Andrews.

And I want to back Mr. Kellahin's comments about my belief

that it's inappropriate for this to be turned into any

general discussion of appropriate discovery guidelines for

the Oil Conservation Division. I am here because I was

made aware of this hearing through a telephone call, and I

have clients who have reviewed the order and have looked at

specific items and whether or not certain specific items

should or should not be disclosed. Those clients are not here, and I am not here for them, but I want to emphasize to the commission that they looked at the specific items in that subpoena, and they are not on notice that their future in division proceedings is going to be affected here outside that specific subpoena. I would encourage you to not to turn this into any general discovery proceeding without giving the entire industry notice to send their lawyers to tell you what we all think.

CHAIRMAN LeMAY: Thank you, Mr. Pearce. Mr. Carr.

MR. CARR: This is what happens every time you get a bunch of lawyers together. I did not intend to suggest that you should make -- or turn this into a rule-making proceeding. I just suggested that maybe when you enter the order, you might tell us as these particular items what your ruling was, and I think on a case-by-case basis the way you will handle these matters will evolve. But I'm not suggesting that you should try to make this a rule-making proceeding. I was just hoping that when we got a ruling either quashing or denying the motion to quash, we'd have some indications of why.

MR. STOVALL: Mr. Chairman, if I might. Two things I would like to point out. One is under the examiner order, the oral order at the January 10th hearing, he did place a condition on the discovery that the information would be

released only to Hanley for the purpose of this hearing.

It did not make those documents public.

Second thing I would just like to -- my advice to the commission on the issue is that because this is on the docket on a two-day notice to the parties who are parties to the hearing, I think we've got to be very careful and limit the scope of it to the specific subpoena.

I would like to suggest that, perhaps, if attorneys who regularly practice before the commission have some concerns about general discovery rules that perhaps we can have a session to determine if there is a need for a more general rule making subsequently. I agree -- I concur with Mr. Carr that we need to be very careful and Mr. Kellahin -- not to go too far abroad in the scope, simply because this is not even a docketed case, if you will. It is in the nature of an emergency appeal.

CHAIRMAN LeMAY: Thank you, Mr. Stovall. I hope the commission can be of some help in this particular specific matter. We shall continue then with arguments, Mr. Bruce.

MR. BRUCE: Thank you, Mr. Chairman. If I can hand out an exhibit just for illustration of my argument. It's marked as Santa Fe Exhibit 1.

As already stated, Mr. Chairman, the issue today is whether Hanley Petroleum, who is an interested party in the Case 10211 is entitled to certain of Santa Fe's well

and geological information, which Santa Fe asserts is confidential. I've handed you an exhibit. It's really just meant to outline the wells that are -- of particular interest to the commission today.

What I've drawn you there is a picture of the northwest quarter of Section 8, Santa Fe and Heyco on the east half of the northwest quarter and southwest quarter of the northwest quarter. Hanley Petroleum owns the lease on the northwest quarter of the northwest quarter.

I'd like to go into a little bit of the history of Kachina No. 8. 8 No. 1 well was drilled to the Wolfcamp formation by Santa Fe as indicated in the northeast quarter of the northwest quarter. The unit for that well is outlined in yellow, east half. It's owned by Santa Fe and Heyco. Santa Fe originally wanted to drill that well as a laydown in the north half, Mr. Chairman. They contacted Hanley about joining or farming out or otherwise contributing to the support of that well. Santa Fe was informed that Hanley did not want to join.

Well, Santa Fe went ahead with its partner,

Heyco, drilled the well with a standup unit at its own cost

and risk and obviously at no cost to Hanley. Before the 8

No. 1 well was completed Santa Fe proposed 8 No. 2 well.

Obviously they need Hanley's acreage to drill that well

because the pool rules for the south quadrant Wolfcamp

provide for 80-acre spacing. Santa Fe and Hanley did exchange letters, and I'm not sure about telephone calls, but they really couldn't come to terms, so Santa Fe filed an application to force pool Hanley.

was obtaining the subpoena that Mr. Stovall has discussed and referred you to. Second, it filed a compulsory pooling application of its own asking that the west half of the northwest quarter be pooled, and that the 8 No. 2 well -- I don't know if Hanley has a different name for it -- but that that be drilled at Santa Fe's proposed location.

As Mr. Stovall indicated, Hanley requested that the following types of data be provided, which for ease of reference in the prior hearing we called raw data. In other words, well logs, daily drilling reports, et cetera; and secondly, interpretative data, such as engineering and geological studies, reservoir studies, et cetera.

Santa Fe asserts and really believes that all of this information is confidential and proprietary to Santa Fe. Of course, the well logs, the other raw data, came from the 8 No. 1 well and it has not been publicly filed yet. As to the other data, Santa Fe has spent large amounts of time doing their geological interpretations and other studies. Santa Fe filed this motion to quash the subpoena and argued before Examiner Catanach last week.

And as Mr. Stovall stated, the motion was granted in part and denied in part ordering Santa Fe to produce certain of the raw data which Mr. Kellahin had requested on behalf of Hanley.

Santa Fe obviously agrees with the examiner that the interpretative data should be protected, and they're obviously not quarreling with that portion of Mr. Catanach's ruling. But based on the facts of this case, Santa Fe does believe that Hanley is not entitled to the raw well data and asks the commission to reverse the examiner's decision as to the raw well data. Santa Fe has appealed this case for two reasons. As I just stated, it does not believe it should be required to give up its confidential data, and also Santa Fe believes the matter is vital to the oil and gas operators in the state, even if this decision is limited to the facts of this case. I think it will serve for guidance for future forced pooling cases.

As I previously mentioned, now that the division has three hearing examiners, it would be good to have a uniform rule or at least something that practitioners before this body could rely upon or at least look at when doing forced pooling cases.

Santa Fe also is before the OCD probably as often as anyone. I've represented Santa Fe for seven years

now, I've appeared constantly on their behalf. Therefore just for their own needs they would like to have some idea what is allowed at a compulsory pooling hearing, and we do indeed thank the commission for hearing this on an expedited basis.

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Before getting into the facts of the case a little further, let's address something that Mr. Kellahin raised; that we are in an administrative proceeding and we are not in front of the courts. The commission and division were formed by the legislature to deal with the special nature of the oil and gas business. I believe that the commission has a duty to take into account that unique nature of the business. Every operator out there, plus geophysical companies, seismic companies have large amounts of information which they consider proprietary. loathe to present it in public or provide it to third parties unless there is some exchange return of information or in this case, as Santa Fe has requested, that Hanley join in the well. We believe that this information should be protected unless there is some compelling reason for its production, and Santa Fe suggests that there is no such compelling reason here.

Mr. Kellahin has already stood up and said court rules apply and Hanley is absolutely entitled to the information under discovery. Discovery is allowed in the

courts to permit a party to find out an opposing party's position and all of their information. However, even in court confidential data is protected. And there are cases, as I stated, that hold that discovery proceedings in administrative bodies are similar to those of the courts. They are not identical, and I think that combined with the fact of the OCD and the commission's creation to deal with the oil and gas industry, gives the commission some leeway, more leeway than that of the courts, to protect confidential data.

Even if you use the guidelines of the district court rules, production of the materials requested by Hanley is not absolutely required. Rule 26 of the Rules of Civil Procedure provides that where discovery is burdensome or oppressive a court may enter an order denying access to that information. Or in certain instances at least provide for a protective order so that the information is produced to the least number of people possible. Rule 26 also specifically mentions confidential data as being protectable.

Turning to the facts again, as we mentioned,
Hanley has requested the raw data on the 8 No. 1 well.
This information is being kept tight by Santa Fe which is an accepted industry practice. Santa Fe has offered this data to Hanley provided that they would agree to either

farm out or commit to the well. Now at the examiner hearing during arguments it came across to us loud and clear that this really wasn't quite proper because by putting that condition on the production of information Santa Fe had foreclosed Hanley from the third option, and the third option, of course, is forced pooling and go nonconsent under the forced pooling order.

Santa Fe asserts that under the facts of this case that third option is not really there. It's illusory. Hanley has filed it's own compulsory pooling case in which they state they desire to drill a well. It desires to drill the well at Santa Fe's location. The only thing I can glean from that is that they want to be forced pool. They don't want to go nonconsent. So Santa Fe has said, "Look, we will give you the data. After looking at it, then you can say, yes, we will join, or, yes, we will farm out." We believe that in those circumstances Hanley is not being penalized by Santa Fe's offer.

And this practice which Santa Fe -- or this offer Santa Fe made, in other words, we will give you the data, and then commit or farm out, that is an accepted practice in the industry. Santa Fe has agreed to do it in the past, and I believe other operators have. I would also point out that Santa Fe does have a duty to protect its well information for the benefit of its shareholders and

its partners.

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As a result, Mr. Chairman, as to that raw data which is identified in the subpoena, Santa Fe would urge the commission to reverse the examiner's decision and hold that Santa Fe need not produce that data to Hanley.

Although the examiner upheld the motion by Santa Fe as to the interpretative data, I would like to make some short comments on that.

I know Mr. Kellahin will present on -- at least in the last hearing presented a little area map that shows aside from the 8 No. 1 well there are 13 or 14 Wolfcamp wells in the immediate vicinity of the proposed 8 No. 2 well. Thus Santa Fe believes there is plenty of public information. In fact, Santa Fe used that public information to build this prospect. And Hanley can use that same public information to do its own engineering and geological studies.

If anything, Santa Fe would state that the 8 No. 1 well only confirms Santa Fe's geological studies, and really 95 percent of the information regarding geology, et cetera, is already out there in public for Hanley to go and examine. If Hanley commits to joining or farming out the well, it would basically have 100 percent of that information. We believe that allowing Hanley to get this interpretative data at no cost to itself would be extremely

unfair to Santa Fe, which has put considerable effort into building or constructing its geological engineering interpretations. For that reason I request that the commission uphold the examiner regarding that form of data.

There is -- one of those items I think that I do want to mention specifically are economic studies. Besides being confidential, I do believe that our studies, economic studies, are irrelevant to this case. No showing of relevancy has been made by Hanley as to economic data. Really that's the data that companies use to determine their well prospects; and if another company got ahold of that, it could get a financial advantage over Santa Fe by knowing what Santa Fe uses for its economics.

I have been at hearings before with all the attorneys in here where economic studies have come up, and the companies are very leery of letting anybody outside of the company see those. And because no showing of relevancy has been made I do not believe that this is one particular item that should ever be ordered produced in my opinion.

One final comment, Mr. Chairman. As I said, I believe this decision, although it really pertains just to the forced pooling case, it is very important to the industry, and it's also important to the commission and the division. If the commission does begin allowing access to confidential information, as I stated in my opening, I

believe there are many cases, maybe a vast majority of the cases in front of examiners that involve in some way or another confidential information. If these proceedings are opened up to allow greater access to confidential information, I think you will see an explosion of the examiners' caseloads as they're confronted with subpoenas, motions to quash, et cetera, et cetera.

In the past the division and the commission were careful to protect the company data, and I think there are some practical reasons to do so. I think the industry as a whole and, of course, this might get into a further rule-making proceeding, supports restriction to access to some extent to confidential data. It's the life blood of these companies, and they need it in order to do a good job for their shareholders and owners.

As a result I would ask you to quash the subpoena in its entirety. As I said, first because Santa Fe has offered this raw data to Hanley, and second as to the interpretative data, if Hanley accepts the 8 No. 1 well data and goes to the public data, Hanley can do its own engineering and geological studies. If production is ordered, which Santa Fe does not favor, I believe there will have to be a strong protective provision in the order so that dissemination of this information stops with Hanley and no where else.

Thank you, Mr. Chairman.

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CHAIRMAN LeMAY: Mr. Bruce, is it your desire to wait until all presentations are made, then if the commission has any questions we can ask at that time, or is there any opportunity for us to ask questions?

MR. STOVALL: I think it's the commission's pleasure at this point. There is no rigid procedure. You're making it as you go along so do as you wish. I don't think it prejudices anybody for you to go ahead and ask Mr. Bruce while it's fresh.

CHAIRMAN LeMAY: Is that agreeable? It might help us.

I think for our benefit -- at least for my benefit -- go

through again and just indicate those items in the subpoena

that were -- the examiner considered confidential and

therefore not releasable.

MR. STOVALL: 6, 7, 8 and 10, Mr. Chairman, were the items that were quashed.

CHAIRMAN LeMAY: Thank you. So the economic studies were quashed by the examiner's ruling?

MR. BRUCE: Mr. Chairman, if I may, the only reason I bring up that interpretative data again is because of the uncertainty as to the extent of this proceeding, whether it is de novo or whether it's more of an appeal.

MR. STOVALL: On the issue, I don't think it really matters whether it's de novo or appeal. What you rule

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    today is going to decide the case. That little formal
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    thing is not too significant in terms of overall scheme.
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         CHAIRMAN LeMAY: Do you have any questions?
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         COMMISSIONER BAILEY: What was the date of the
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    completion of No. 1 well?
                     My witness just informed it was just this
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         MR. BRUCE:
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    past Sunday, the 13th of January.
         CHAIRMAN LeMAY: Mr. Weiss, do you have any questions
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    that you would like to ask?
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         COMMISSIONER WEISS: That's the well that was drilled.
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    It's new. What is the normal length of time before the
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    information becomes public? 30 days; is that right, or 20
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    days?
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         MR. STOVALL: We have a 90-day rule, Commissioner,
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   with respect -- when information is filed it can be held by
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    the division for 90 days.
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         COMMISSIONER WEISS: I don't have any other questions.
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         CHAIRMAN LeMAY: Mr. Bruce, when that well was flooded
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    and drilled, was it drilled tight or is this information
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    tied into --
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         MR. BRUCE: It was drilled tight.
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         CHAIRMAN LeMAY: From spud.
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         MR. BRUCE: From spud. Let me get you the spud date
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    on that, Mr. Chairman.
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         MR. KELLAHIN: September 29.
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MR. BRUCE: September 25.

MR. KELLAHIN: 29th.

MR. BRUCE: 29th.

CHAIRMAN LeMAY: That's all. Do you want to go next,

Mr. Carr?

MR. CARR: Maybe I ought to. I'm going to argue in favor of quashing the subpoena, then Mr. Kellahin might want to respond to us.

MR. KELLAHIN: I'm always anxious to hear from Mr. Carr. I didn't know which side you were on.

MR. CARR: There is certainly no confusion of us being in favor of quashing the subpoena.

May it please the Commission, I represent Harvey E. Yates Company. Harvey E. Yates Company as Mr. Bruce indicated is one of Santa Fe's partners in developing this acreage. They have paid their proportional share of the costs of developing the information which is now being sought by subpoena.

I would submit to you that this is not a district court proceeding, and those rules should not just be adopted and incorporated en mass into your proceedings. Oil and Gas Act expressly directs you to prescribe by rule the rules of order and procedure to be followed in these procedures. This is an agency which not only has technical expertise and competence in the area of oil and gas

development, but it is an agency which should be sensitive to and respect the customs and practices in this industry. For this reason you are not only directed by the Oil and Gas Act to prescribe your own rules of order, I submit to you this is a time when you are called upon to develop a procedure whereby information can be provided but only within the custom and practice as we know it in this particular industry.

Recently anyone who requests a subpoena from this body gets it. It's treated as a ministerial act, and I would submit to you that is the very seed of the problem. The very seed that has grown into what we are doing here before you today. The problem is that anyone can walk in and request virtually anything. You grant a subpoena, issue the subpoena, and then the party to whom the subpoena is directed is put in the position of disclosing confidential information in a case like this, or they are required to come in here and fight and oppose it.

If you look at the statute, the only thing we can raise as a defense is whether or not the information is relevant; and if you take the same sort of approach that the district courts take in interpreting that term, what you are doing when you just ministerially sign that subpoena is you say you give them your information, the information that you have developed and that you have

considered proprietary.

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I would submit to you that this is the time for you to think about that and determine if that's what you want the OCD subpoenas to become. I think that approach is It is not only inconsistent with the industry, I submit that what it does is simply invite abuse. When you come in and enter an order and put a protective clause on it, that's very helpful to me if I'm the one who is being ordered to supply the information to Mr. Kellahin's client and has the word this is confidential and should be protected, because Mr. Pearce's client tomorrow, you issue a subpoena and then I have to give it to him. Then the next thing Mr. Bruce's client will do the same, and then here will come Ernie Padilla and Ernie Carroll and everybody else, and we have no confidentiality what whatsoever. It's inconsistent with the rules of practice before this commission.

I would never again recommend to a client to file a log and ask you to keep it confidential for 90 days, because I'm not even convinced, and I could stand before you and fight to keep that confidential. When I go out, when my client goes out and they invest money and they drill Kachina 8 No. 2 well, they're not only seeking production, they're acquiring the information and they can use that information because they took the risk to develop

offsetting another property.

That's what we're doing here today. We're asking you not to say when we go out, we take the risk and we do what oil and gas operators do, that you're going to say well, that's just fine, but anybody in this room who wants a free romp through your files, I'm going to give it to you and tell the guy who's developed the information and spent the money that's his only relief is to come in here and somehow contrive. I can tell you we can contrive some arguments that assert that this information isn't relevant, when in our hearts we all know that it is. It puts the examiners in a bad position when you just ministerially issue a subpoena, and then ask them to go in and listen to us come in with these contrived arguments.

I will tell you right now that this procedure is flat out of hand. This isn't just a situation that's come up in this case. It's come up over and over again during the last year. I've been before you for Texaco arguing that well, maybe we could not put in structure maps in which we have integrated this information and make it that way acceptable. That's ridiculous. I have been in here in the last year saying the Mallon well is a total depth. We want the log. Then everyone says that's really not relevant. That's like pretending we're two months ago before the well was drilled. This situation is simply out

of hand.

The one way you can make sense out of this is to quash the subpoena, and when somebody comes in and says I want Joe Blow's records, you look at it and say, "I have experience in the oil and gas industry. This is a toehold. They're going to try to use this information for further development. It's information they acquired by investing their funds, and I am not just going to blindly say, yes, you pass it down on the street corner and then to anybody who wants a subpoena."

I think it is absolutely critical that this chain of events which started several years ago in the ministerial act of granting a subpoena come to a halt, and what you do in the future, you look at it and see if this is the kind of information you think an oil and gas operator ought to be required to pass out.

I think when you do that, the decision making is going to be made in the office of the director or a member of the commission who is empowered to issue a subpoena, but not ordered to do so. You are empowered. That doesn't mean you have to. That doesn't mean you have to step outside the practice and custom in this industry. I would submit to you that's what has been going on.

We urge you to quash the subpoena, and we would suggest that in the future when even I come in asking for

one, you exercise some real discretion and decide if you want to start a chain of events which is going to result in another hearing like the one we're having here today.

CHAIRMAN LeMAY: Mr. Carr, do you want to answer a question or two? Mr. Weiss has a question.

COMMISSIONER WEISS: Really it's for Mr. Bruce, but I forgot it. What does commit to a well and farm out mean in a general economic sense?

MR. BRUCE: By "commit" I mean -- if you look at the little map I have, Hanley owns 40 acres out of that 80-acre unit, and if they commit to the well, then they would pay half of the well costs. I'm just saying commit means they agree to their proportionate share of all costs.

A farmout, the terms vary, but, for instance, what Santa Fe offered to -- I recognize this isn't in the record, but in this particular instance Santa Fe said, "Give us a farmout of your lease," and what it is is kind of -- I don't know how to describe it. Basically if Santa Fe drills the well under the farmout from Hanley, it will earn an assignment of a specified percentage of Hanley's lease.

COMMISSIONER WEISS: But the risk is all --

MR. BRUCE: Santa Fe would pay all of the well costs associated with the Hanley lease.

COMMISSIONER WEISS: Then under that Hanley would pay

their proportionate share, so it's a matter of assessing costs. On the third case how does the economics work into this? The one that you guys talked about. In a general sense not to this particular case.

MR. BRUCE: I don't know if I can answer that. It varies with each company and with each well prospect. But the general procedure is that if Hanley was -- or since Hanley has an application, and if Santa Fe was forced to pool, and they did not pay their proportionate share of costs, assuming it was Santa Fe that forced pool and Hanley didn't pay its proportionate share of well costs, then Santa Fe would get to recoup out of the production, if there was production, that 50 percent of the well costs plus a penalty to be set by the division or the commission, anywhere from zero to 200 percent. So they would get costs plus a penalty percentage.

COMMISSIONER WEISS: In your experience, let's say in Santa Fe's experience, of these three options, what generally -- can you say that one is 10 percent better than the other or 50 percent?

MR. BRUCE: I think that would require expert testimony, but, as I said, I've been representing Santa Fe up here now for at least seven years, maybe eight years, and in all that time Santa Fe has been up here a lot and they have never gone nonconsent under a forced pooling

order. I think there's only one or two situations where a pooling order has entered against them. But in any case where they have an interest in the well, they have either farmed out or paid their proportionate share.

COMMISSIONER WEISS: Thank you.

CHAIRMAN Lemay: I have a followup. Maybe that's similar because -- here, again, Mr. Bruce, this involves something you said. You said that you would give the information to Hanley if they would join to farm out and these are clear-cut options. But I might cloud that a little bit because a farmout has various terms. You can farm out for half carried or you can farm out for 3 percent override.

MR. BRUCE: That's true. Well, I have a landman here who would testify that they just weren't able to come to terms, but Santa Fe -- in Santa Fe's opinion they made an offer and no counteroffer was ever made. Generally terms can be found if people will negotiate.

CHAIRMAN LeMAY: I might differ but that would be a personal opinion. Your fair and my fair may be two types of fair.

MR. BRUCE: It depends, Mr. Chairman. I think Santa Fe offered a 25 percent back in, and they didn't get a counter for that. I know anything from 25 to 40 percent are common in New Mexico.

CHAIRMAN Lemay: That may be just well enough to drop that right there before we get into a complicated discussion. I just wanted a clarification as to the clear-cut options. I just thought that I would challenge that one farmout as being a clear-cut option. I think it's complicated when you talk about farmout terms; not as clear-cut as you might imply.

MR. BRUCE: Like I said, I fall back on the fact that in my experience with Santa Fe they've always come to terms with parties who wanted to drill a well. In my experience in the proverbial 99 and 44/100 percent of the cases the parties can come to terms that are acceptable to them.

CHAIRMAN LeMAY: Mr. Kellahin, I guess you're used to being outnumbered in these kinds of proceedings. It's your turn.

MR. KELLAHIN: Numbers only, Mr. Chairman. It's always a treat to come up against my good opponent, Mr. Carr. He's always wonderful. His hypothecated doom and gloom presentation he has given to you this morning escapes all the facts that I am aware of that are relevant with regards to this particular case. I think we can put in context some of the things that may bother him in the abstract. He's always been able to land on his feet with regards to these subpoena questions, and I can't imagine that it's going to cause the turmoil and confusion that he

presents for you.

Let me share with you as a proposed Exhibit

No. 1 to this proceeding the same display that we shared

with counsel and with Examiner Catanach, simply as a point

of visual reference to talk about several points with

regards to this particular item. Mr. Bruce has conceded

the relevancy of the information. He argued that before

Examiner Catanach, and I think everyone will quickly see

that the information is in fact relevant. For purposes of

background, let me go through some of that discussion with

you so you can reach your own conclusions about that item.

We have shaded on the display, I think predominantly in yellow on one of the displays, those are the Wolfcamp completions known to my client to exist, and you can see in relation to Section 8 they're to the south. You can also see that there has been no discussion yet before you with regards to the potential in the Bone Springs, but in fact that exists and the testimony will be that this location represents a potential in the Bone Springs. You can see the Bone Springs development taking place to the north and west of Section 8.

What has occurred then is a need for information. We are not asking Santa Fe to do our homework for us. We have the geologists and engineers to reach our own conclusions about the data. But what we have is an

unfair advantage with regards to one party and the refusal to share relevant data with another party. There is no question that Mr. Bruce's geologist is going to use the data that I seek to share with my technical people against me at the hearing. It is absolutely certain that he will produce some type of carbonate isopach that he integrates the well bore information utilized from the logs of the Kachina 8 No. 1 well against me. He will have an interpretation of the size and the shape of the Wolfcamp reservoir. It has material of importance and relevancy to the location of that well within the 80-acre spacing unit.

We have simply nothing else to do but to get the case filed on our own part for which we seek to operate this very well, a forced pooling application because the parties could not agree. I'm at a disadvantage with regards to our expert in determining what is the optimum location within that spacing unit. That is a critical, relevant, important piece of information and I will tell you why. Look in Section 5. There is an open location shown in Section 5, it is the south half of the southeast quarter of 5. You see the symbol there? That well is at an unorthodox well location and it is processed by Santa Fe Energy.

They were on the examiner docket last Thursday with a case immediately before this one. It was case

10210. They were seeking to justify the unorthodox location in the Wolfcamp, this very same formation for that No. 5 well. They chose to be 330 from the southern boundary of Section 5 as opposed to 660. The location, admittedly by Santa Fe with regards to any Wolfcamp well, is critically important. How else can you explain them seeking before the commissioners an unorthodox location utilizing the data that I seek to also utilize.

That's an interesting procedure. The examiner heard that case, and geologist Toma for Santa Fe used Exhibit No. 4 in that proceeding in which he presented a carbonate isopach integrating the well bore information from the well I seek to discover data on. He went through that presentation in public with questions being asked by the examiner with regards to that geologic interpretation. The case was taken under advisement, and only during the break when I looked at that isopach did they then reopen the case and denied me access to that isopach under the contention that the public disclosure of that information did not waive the confidentiality of that data.

How do you reconcile that? If Santa Fe uses the data in the interpretation in one case before this body, and then comes here and turns 180 degrees and says I can't have the data for my own client, so that we can have a level playing field in order to have due process served

before this commission, so all parties have a fair chance to protect themselves when you're exercising the police powers of the state of New Mexico against me? It is eminently unfair.

2.3

We have conceded and we have not sought to appeal those items which Examiner Catanach in his wisdom and judgment determined we did not need. I will represent to you that in district court I would have gotten that information. I will concede that there is perhaps a reason for a difference before the regulatory bodies in oil and gas operations. Those are their interpretations. We will have our people there. We will make our own. But I think it is important for us to have an opportunity for fairness with regards to this specific information. It is not a general shopping sortie through their proprietary information. It's the information available for this one well.

Let me tell you a little bit about this one well. It was spudded on September 29, 1990. The rig was released on October 30, 1990. There's initial tests on that well. Apparently that well will produce in substantial quantities of oil from the Wolfcamp. They're building tank batteries out there. They're getting ready to lay a six-inch line. All kinds of activities. Except they have to lay the completion of that well in order to

take advantage of the situation.

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You already have in existence procedures before this division and this body with regards to the utilization of important information. You can look at Rule 1105. I have some copies of 1105 here. I will share them with you. If you will turn to the second page of 1105, the commission or the division rules and regulations already deal with the claim of proprietary information with regards to logs. There is a 90-day rule in there.

The information on the C105 is the kind of completion and production information, part of which we seek to have produced. And the reason that rule is in there is very good, and it eliminates and satisfies and addresses all the concerns Mr. Carr was telling you about. The reason that rule is in there is because it accomplishes in a very nice way two objectives. One, it lets the parties that pay for generating the expense of that data to hold them proprietary for 90 days. What does that What does the confidentiality accomplish? accomplish? Ιt lets them take that data with a new discovery or with the extension of a pool and get their land people out there in the woods and lease up additional acreage so that they have not disclosed the advantage of that information. Now, that may not be fair, but that's how it's done in the industry. That satisfies the concerns of the industry.

But you notice that after 90 days they're on file they become public information, and everybody gets to utilize them. I would suggest to you if that is a concern for Santa Fe Energy, we will continue the two competing forced pooling cases for 120 days. Give them 90 days to further hold confidential the logs and the production information. Let them satisfy their concerns about their ownership, and then let's have the data.

But you see in the rule itself, the 1105 rule, it says, "Not withstanding that rule, the Commission can require the production of that information that's relevant with regards to proceedings before it." You've already handled this in the rule, and it's only fair because you're using the police powers of this state to determine what will be the appropriate answer with regards to this case.

Let me tell you what this case is not. We have had instances in the past, and I think most of you are familiar with them in the forced pooling context. For example, if Santa Fe is under an expiring lease problem, they can't get joinder of all the parties and they start the 8 No. 1 well in order to save their lease, Hanley is in the position of having to contribute acreage and they won't, the commission has gone out of its way to avoid Hanley in that position of gaining an advantage by riding that well down, knowing the results of that well and then

having an after-the-fact election of participation pursuant to a pooling order.

I think everybody recognizes the commission has tried various avenues of alternative solutions to avoid that windfall to a party being pooled. That is not the case here. The 8 No. 1 well has been drilled, completed. It forms its own voluntary spacing unit with its interest owners in the east half of that quarter section. We are not participating in that well. We have no acreage to contribute to that well, and we have no economic incentive to -- at risk in that well. What we're looking at is development wells offset to that development. We're looking for the location.

Now, Santa Fe tells you the best location is in the south 40 acres of the 80. My geologist would like the opportunity to look at the data in order to determine in his own mind that he can't, or maybe he should, put it in the north 40, because he might optimize the potential to duly complete or otherwise produce the Bone Springs and the Wolfcamp. See how the two pools are coming together?

There is not a question of relevancy here, and I think the opponents conceded that.

But I share with you some of the concerns about why this is so relevant. The drilling information, daily drilling reports and completion information is terribly

important. My engineer is willing to come and justify his AFE and his drilling program for his well. It may in fact, unless I am ambushed and surprised, which I am trying to avoid, come up with a program in order to properly, effectively and safely plan a program for the drilling of the well; and without the data how am I to do it? I might as well not come. You tie my hands behind my back if I don't get to have the same information they're working from and it's eminently unfair. 

Examiner Catanach with the assistance of commission counsel has determined that I was correct with regards to those items still left to be required to be produced. We believe that that position should continue to be sustained, and I will tell you that the commission examiners have struggled with this on occasion. It's not very frequent. The division has gone a long way in avoiding hearings by ambush. We have made significant progress with the recommendation of oil and gas attorneys and with Mr. Stovall's assistance to have a pre-hearing disclosure statement. In the olden days you'd come to the hearing and you wouldn't even know who is coming against you. that was a lot of fun. We hope we've gotten rid of that.

Now we're at the point where we're trying to take an important piece of information and have it shared.

We're not seeking and I don't think anyone has sought to utilize discovery rules. They are there. I think we're entitled to the data. But as an industry practice it has been selectively utilized. The commission has the authority to determine what's fair and reasonable. That's why we're here today in that procedure. But let me tell you, that if there is ever a way to maintain a data base advantage to keep that from opposing parties, and yet to be able to use that data in a hearing, quashing this subpoena on the basis of confidentiality, is giving Mr. Carr the worst fears imagined, because every subpoena issued will always have to be quashed on the basis of confidentiality. How else do you generate most of this data, unless the company goes out and spends it and gets it? That does not entitle them to beat us over the head with it in a pooling process where it's only fair we also share that information.

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I contend they have waived the confidentiality by their past actions before the commission. I think we're entitled to have that information. One of the things that the commission has done as an alternative, or the division — I will share them with you because I don't think any of them work very well. In the forced pooling case they have said when someone has data they don't want to share and it's relevant, well, then they have decided

that it would reduce the risk factor component of the pooling order. That somehow levels out the playing field.

I guess it's a compromise. It makes it a little better but it's still not level.

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One of the other cases where Mr. Carr was involved in -- I don't know how he ever got himself into this, but his client had the proprietary data. Mr. Bruce, this wonderful little fraternity here, were all involved in the same thing. He is the one seeking the data. my position last June. He and Enron and Texaco are just duking it out over the data. He's contending I've got to have it, and Mr. Carr says, "Oh, no, I'm going to keep it. It's mine." What happens? The hearing examiner says that not only can't Mr. Bruce have it, Mr. Carr can't use it. And how are you going to decide a case in a vacuum? You're going to pretend it's not there? Holly cow, how do you fix that? It was fixed because the parties went outside the hearing room and said, "My God, what have we done?" entered into a confidentiality agreement and they exchanged the data. And that's what we're asking you to do here and that's fair. That's all we want.

CHAIRMAN LeMAY: Mr. Weiss?

COMMISSIONER WEISS: I don't understand. It was my impression that the exhibits at an examiner hearing were public acknowledge.

1 MR. KELLAHIN: That was my understanding too, 2 Commissioner Weiss. 3 COMMISSIONER WEISS: What happened? The exhibits were withdrawn and sealed 4 MR. KELLAHIN: 5 and that's the status of that case at this point. MR. STOVALL: Commissioner Weiss, if I might explain 6 7 the division's position at that time, Mr. Kellahin indicated that related only by geographical area case. 8 9 Santa Fe sought an unorthodox location for the well 10 Mr. Kellahin discussed in Section 5. They did present an 11 isopach map. Mr. Kellahin did not enter an appearance on 12 behalf of any party in that case. He was not in the case. Because of the precedential nature of this, the examiner 13 sealed the record in that case until such time as an order 14 15 is issued simply because there were no other parties that 16 needed that information in that case. It was in the context of this rather controversial, as I say, 17 precedent-setting situation that that was done. 18 COMMISSIONER WEISS: What does "sealed" mean? 19 20 Not allowed for public use, not for MR. STOVALL: 21 public inspection. 22 COMMISSIONER WEISS: Is that case going to be decided 23 upon? There will be an order issued and at the 24 MR. STOVALL: 25 time the order is issued that case file will be opened up

and placed in the public records.

COMMISSIONER WEISS: Okay. That's all.

CHAIRMAN Lemay: Just some general information in the area. I'm assuming there are no expiring leases here in Section 8; is that correct?

MR. KELLAHIN: That is my understanding, Mr. Chairman, that in Section 8 the acreage is blocked up and held by Santa Fe and Heyco. With regards to the balance acreage my client owns 100 percent of the 40 acres of the tract northwest of the northwest, and there is to the best of my knowledge no leases held by production and there are no expiring leases. At least within the short term. I'm suggesting within the next 9 to 12 months if my memory serves me correct.

CHAIRMAN LeMAY: Is that your opinion to, counselor?

MR. BRUCE: Yes, sir.

CHAIRMAN LeMAY: What about other wells drilled tight in the area; is this precedent setting being tight or can you point to some wells on this map or have any knowledge of any wells in the Wolfcamp being drilled tight?

MR. KELLAHIN: I can't respond directly to that question. At this point the information generally available to the geologists, the type of logs, the mud logs, all those kinds of things, are open and accessible to everyone with the exception of this single well and to best

of my knowledge it's the only one here that has a contingency still placed upon it.

CHAIRMAN LeMAY: You mentioned the well in Section 5.

Was that a tight well also?

MR. KELLAHIN: It's not been spudded yet. It was proceeding before Examiner Catanach last Thursday where they are seeking the unorthodox location of the 5-1 well. That well to the best of my knowledge has not been started.

CHAIRMAN LeMAY: Bruce.

MR. BRUCE: Mr. Chairman, on this Wolfcamp well to the south of the proposed location, I believe many, if not most of those, are Meridian wells and I believe Meridian does hold tight the information according to OCD rules. But I do not know what the age of those wells are or when they were completed. I believe information on those wells was held tight when they were drilled.

CHAIRMAN Lemay: For the 90-day period of time is your understanding?

MR. BRUCE: Yes, sir.

CHAIRMAN LeMAY: This is rather informal. Does anyone have any knowledge to that effect, that the wells in the south half of 8, the Meridian wells, were drilled tight?

MR. CARR: No, I don't.

CHAIRMAN LeMAY: Is the information available now?

MR. TOMA: It is available now.

MR. BRUCE: For the record, Mr. Chairman, that was John Toma, who is a geologist for Santa Fe Energy.

CHAIRMAN LeMAY: It's my understanding you would like an order and I guess one issued rather quickly because what happens from this point on will depend upon what kind of order we issue.

MR. KELLAHIN: Yes, Mr. Chairman. I'm not suggesting that you need to make an immediate decision. While there are competing forced pooling cases on the docket for the 24th, I'm aware of no impediment that could require those cases to be further continued until you saw the record before Examiner Catanach and deliberate upon your decision. I would suggest to you that as part of the procedure that Santa Fe should produce for your inspection en camera the documents required for production. It's my understanding that those documents have been brought to Santa Fe, and we would suggest that you may welcome or exercise that choice in your judgment.

CHAIRMAN LeMAY: We have a general idea what is requested in this case. Mr. Carr.

MR. CARR: I would just like to, if I could, correct a couple of things. First of all, I was not suggesting that you issue subpoenas and then have them quashed on the confidentiality. I was suggesting that the division exercise discretion going in. I think Mr. Kellahin

misstated my argument. I would also like to advise the division that Heyco drills wells in the Bones Springs primarily in the area. They drill them tight. They keep the information confidential.

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MR. BRUCE: If I could clarify one thing,

Mr. Chairman, regarding -- Mr. Kellahin referred to an

Enron case. Santa Fe was in that case and requested

information, but I would point out that when it requested

information, Santa Fe had already signed a letter

committing its interest in the well. Since we're paying

for part of that well, we think we're entitled to that

information. So I think that's a little distinguishable.

Mr. Kellahin also referred to the well in

Section 5. In that case Santa Fe -- it's in the record -
Santa Fe has an expiring farmout. It had to present

sufficient evidence to the examiner in order to get the

unorthodox location. And as a result it did present

certain information, and also did request that information

be held confidential.

One final thing, Mr. Chairman, although
Mr. Kellahin referred to Mr. Carr's doom and gloom
scenario, I think if you look at Mr. Kellahin's map, say,
for instance, the Kachina 8 No. 2 well was drilled,
regardless of under what circumstances, over in Section 7,
maybe the east half of the northeast quarter was owned by

some third party, well, if you adopt district court rules, under district court rules I believe it would be perfectly legitimate for that third party to come and subpoena Santa Fe's data from the Kachina 8 No. 2 well to support some well or forced pooling application in that Section 7. I just don't think that's right. That's why I agree with Mr. Carr that the subpoena power should be severely restricted in this case.

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Thank you. It's my understanding you CHAIRMAN LeMAY: don't want rule-making-type with this case, but it sounds to me like you're almost asking for rule making on the subpoena issue. What we might do is certainly issue findings and an order pertaining to this particular situation. With that we might carry on some discussion among the operators as to subpoena procedure, if they're in disagreement with the way it's currently handled. director should make his own decision upon seeing the subpoena whether it was valid one or not. We've gotten a little more democratic with this process. I think what we're talking about is more or less not the degree of maybe court procedures involved in OCD hearings. What we're talking about is -- whether it be discovery or whether it be subpoenas and quashing or whatever else, we can get into that.

Mr. Kellahin.

MR. KELLAHIN: Mr. Chairman, if I might respond. What we're dealing with here is the administrative due process. On behalf of my appearance before you, I have no quarrel with the current system as interpreted by Mr. Stovall. I think it's abundantly fair that you issue the subpoenas and have hearings in specific cases with regards to certain information, and do it on a case-by-case basis. I think it is a quagmire that you will never get out of if you open up to general discussion of the policy.

CHAIRMAN LeMAY: I think Mr. Bruce's concern there was that we get into fishing expeditions by anyone who wants to drill a well, issue the subpoena, get into anyone's files and get what they want.

MR. KELLAHIN: You can handle with the specific findings with regards to this subpoena and draw them as narrowly or as broadly as you wish.

CHAIRMAN LeMAY: This is going to be my suggestion with my associates concurrence that we would in the findings address some of these concerns.

MR. STOVALL: Mr. Chairman, if I might, I'd like to -Mr. Carr raised the question about the ministerial approval
of subpoenas. I would direct the commission and perhaps
Mr. Carr would want to respond to Rule 1211, the second
sentence of which says, "A subpoena will be issued for
attendance at the hearing upon written request of any party

interested in the subject matter of the hearing." It is upon the basis of that instruction that I have issued my recommendation to the division director that this becomes a ministerial function, and that in fact the director does not become an advocate on behalf of the party from whom information is sought. That they should be their own advocate.

I think the issue which is of concern here and one that perhaps needs to be addressed probably outside the context of this hearing, since it is not a problem here, is the definition of "any person interested in the proceeding." I think there is a very valid concern, but I don't think it's within the scope of this hearing about whether just anybody can jump into a proceeding and start requesting data just because they want the information, and whether or not they've got a direct interest in the proceedings.

CHAIRMAN LeMAY: I think what -- with my associates agreement we will draw up some findings in this case addressing the specific issues as ruled on by the examiner, and beyond that see where we go from there.

Mr. Bruce.

MR. BRUCE: One final comment. I think this letter -- the original was given to the examiner.

CHAIRMAN LeMAY: I think that we have that.

MR. BRUCE: This is the Hondo Oil & Gas letter.

CHAIRMAN LeMAY: We have a record in our file where we received that letter.

MR. KELLAHIN: Mr. Chairman, I object to this being a popularity contest or some kind of ballot where we poll and submit letters from the industry without comment. You can do it like you always do, put them in the file, but I resist and object to it being integrated as a specific exhibit in this case. If it's meant to poll the industry, I would like the opportunity to go out and poll my own.

MR. CARR: May it please the Commission, I believe this letter and my appearance for Enron are nothing more than just that, taking a position and advising you where our company stands. Mr. Bruce and I today have been branded as being from the same fraternity, and I guess it's unfortunate whether it's more popular than the other side according to Mr. Kellahin.

CHAIRMAN LeMAY: I can guarantee you that the commission has not based opinions on popularity. We are very unpopular in many cases. If there are arguments in the letters, I certainly like to read them, but we're not taking polls on the issue because they're not an accurate survey and wouldn't mean anything anyway.

MR. KELLAHIN: One final procedural thing, if there is a desire to deliberate this, I would request some guidance

on the hearing next week. We've got them breathing down our back. It will be virtually impossible I think, even now if given the information, to try to get it analyzed and integrated into displays, and we have a scheduling concern here based upon how you decide to handle this.

CHAIRMAN LeMAY: Talking about the forced pooling case?

MR. KELLAHIN: The two examiner forced pooling cases are now on the docket for the 24th. I don't mean to suggest how you handle your proceeding, but it is a concern to me in that preparation that it is simply a week away.

CHAIRMAN LeMAY: We can get together on that. I'm not involved in our examiners -- the examiners are here. It is my understanding you will need some guidance with this issue before you go on. Unless you want to go on without that guidance.

MR. KELLAHIN: I can't go on without the guidance and I think we're stuck here until you decide how we're going to proceed.

MR. BRUCE: I think that should be referred to the examiner. We don't want the case continued unnecessarily.

CHAIRMAN LeMAY: That is an argument you will probably have to make before him. Since we just appeared to decide this issue, not necessarily what you're going to do at the examiner hearing.

Is there anything else? We do have some 1 2 letters, might just refer to those, Mr. Stovall, for those that are keeping track on a popularity basis. 3 The only one which I've actually seen 4 MR. STOVALL: 5 and have a copy of is from Mewbourne Oil Company, Paul Haden, landman. I have not seen the other letters which 6 7 have been submitted. 8 CHAIRMAN LeMAY: We have a letter from Hondo Oil & Gas 9 Company. It's on the side of Mr. Bruce and Mr. Carr. 10 Those are the only two correspondence, pieces of 11 correspondence, that I've received. And they will be incorporated into the record for whatever value they may 12 13 have as to readability, certainly not as testimony. 14 Is there anybody else who has any comments or anything they would like to say in regard to this case? 15 16 Mr. Pearce left. He must have had something else. He was 17 here for a short time. 18 That's it. We will take this case under advisement. 19 20 (Whereupon, the hearing was concluded at the 21 approximate hour of 10:30 a.m.) 2.2 23 24 25

1	STATE OF NEW MEXICO )
2	) ss. COUNTY OF SANTA FE )
3	REPORTER'S CERTIFICATE
4	
5	I, Susan G. Ptacek, a Certified Shorthand Reporter and
6	Notary Public, do HEREBY CERTIFY that I stenographically
7	reported the proceedings before the Oil Conservation
8	Division, and that the foregoing is a true, complete and
9	accurate transcript of the proceedings of said hearing as
10	appears from my stenographic notes so taken and transcribed
11	under my personal supervision.
12	I FURTHER CERTIFY that I am not related to nor
13	employed by any of the parties hereto, and have no interest
14	in the outcome thereof.
15	DATED at Santa Fe, New Mexico, this 11th day of
16	February, 1991.
17	Dura ) A Diagram
18	SUSAN G. PTACEK  My Commission Expires: Certified Shorthand Reporter
19	My Commission Expires: Certified Shorthand Reporter December 10, 1993 Notary Public
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Read by OCD 4.25-91

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STATE OF NEW MEXICO
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     ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
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                 OIL CONSERVATION DIVISION
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                              Cases No. 10211 and 10219
  IN THE MATTER OF CASE NUMBER 10211
   AND CASE NUMBER 10219, CONSOLIDATED,
   REGARDING COMPULSORY POOLING IN
                                              Vol. II
                                              Pq. 61-
                                                       336
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 9
           REPORTER'S TRANSCRIPT OF PROCEEDINGS
                 VOLUME II, Pages 61-336
10
                     EXAMINER HEARING
                  JIM MORROW, HEARING EXAMINER
          BEFORE:
11
                     Friday, March 8, 1991
12
                         8:40 a.m.
                   Santa Fe, New Mexico
13
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               This matter came on for hearing before
16 the Oil Conservation Division on March 8, 1991, at
17 8:40 a.m., at Morgan Hall, State Land Office
18 Building, 310 Old Santa Fe Trail, Santa Fe, New
19 Mexico, before: Gail D. Vinson, CCR, Certified
20 Court Reporter Number 297, for the State of New
21 Mexico.
22
23
                              BY:
                                    GAIL D. VINSON, CCR
  FOR:
         OIL CONSERVATION
                                    Certified Court Reporter
24
         DIVISION
                                    CCR No. 297
25
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2	A P P	E A R A N C E S
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              EXAMINER MORROW:
                                State your appearances.
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              MR. BRUCE: I am James Bruce of the
 3 Hinkle law firm representing the applicant. I have
 4 four witnesses to be sworn.
 5
              EXAMINER MORROW: Any other
 6
  appearances?
 7
              MR. KELLAHIN: I am Tom Kellahin, of the
  Santa Fe law firm of Kellahin, Kellahin and Aubrey,
  appearing on behalf of Hanley Petroleum, Inc.
10 request that you call the next case on the dockets,
11 which is Hanley's application in Case 10219, and
12 that these two matters be consolidated for purposes
13 of hearing.
14
              EXAMINER MORROW: Is that all right with
15 you?
16
                           Yes, sir.
              MR. BRUCE:
17
              EXAMINER MORROW: Case Number 10211 and
18 Case Number 10219, for compulsory pooling in Lea
  County, New Mexico.
20
              MR. CARR: May it please the Examiner, I
  am William F. Carr, of the Campbell & Black law
         I represent Harvey E. Yates Company in both
23 of these cases. And I do not have a witness.
24
              MR. STOVALL: Mr. Bruce, you said you
25 did have some witnesses?
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MR. BRUCE:
                           Perhaps four witnesses, and
 1
  I'd like to have them all be sworn at this time.
 2
              (Mr. Stovall swore all the witnesses
 3
  present in the conference room.).
 4
                         Call Mr. Murphy to the
 5
              MR. BRUCE:
 6
  stand.
                       LARRY MURPHY
 7
  was called as a witness and having been previously
  sworn, was examined and testified as follows:
                        EXAMINATION
10
11 BY MR. BRUCE:
12
               Would you please state your name and
          Q.
  city of residence?
14
               My name is Larry Murphy and I'm from
15 Midland, Texas.
16
          0.
               And who are you employed by?
               My employer is Santa Fe Energy
17
          Α.
              I am employed as a landsman.
18 Resources.
               And what is the relationship of Santa Fe
19
          Q.
20
  Energy Resources to Santa Fe Energy Operating
21
  Partners, L.P.?
22
          Α.
               Basically, this is a partnership that is
23 owned 80 some-odd Santa Fe Energy by Santa Fe
24 Resources. Any further detail from that would have
25 to come from our management in Houston.
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And Santa Fe Energy Operating Partners 1 2 would be the entity that owns a portion of the land that is involved in today's cases; is it not? Yes. Α. 5 Have you previously testified before the OCD as a landsman? Yes, I have. 7 Α. And are you familiar with the land 8 Q. matters involved in today's cases? Yes, I am. 10 Α. Mr. Examiner, I tender the witness as an 11 12 expert landsman 13 EXAMINER MORROW: Accept his 14 qualifications. 15 Mr. Murphy, state briefly what Santa Fe ο. seeks in its case? Santa Fe seeks an order pooling all 17 Α. mineral formations under the west half, northwest quarter of Section 8, Township 18, south, Range 33 east, for all pools or formations based on 80 acres. 20 The unit will be dedicated to Santa Fe's Kachina"8" Fed. Well Number 2, to be located 660 feet from the 23 west line and 1980 feet from the north line. 24 Q. Will you please refer to Exhibit

25 Number 1 and describe its contents for the Examiner,

and also identify the parties Santa Fe seeks to 2 force pool?

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- Exhibit Number 1 is a land plat showing 4 the proposed unit and well location, outlined in red 5 and well location shown in green. The location is 6 1980 feet from the north line, 660 feet from the 7 west line, which is a standard under the South 8 Corbin Wolfcamp Pool Rules. The uncommitted 9 interest owner is Hanley Petroleum, Inc., which owns 10 100 percent of the northwest quarter northwest 11 quarter.
- Santa Fe and Heyco jointly own the 12 13 southwest quarter northwest quarter.
  - Has Heyco agreed to join in this well?
  - Yes. Heyco has also consented to Α. Santa Fe operating the well.
- Okay. Would you please describe your efforts to get Hanley to join in Santa Fe's proposed 18 And I would refer you to Exhibit 3 -- skip 19 well? an exhibit, please. 20
- 21 First of all, I'd like to go into the history of Santa Fe's Kachina 8 Fed. Number 1 well, 22 23 located in the northeast quarter northwest quarter 24 of Section 8.
- 25 Santa Fe had been working on this

prospect for a number of months, and in the summer 2 of 1990 I called Hanley's office and asked if they 3 would support the proposed 8 Number 1 well. It was 4 Santa Fe's intention to drill the well as a north 5 one-half northwest quarter laydown. I was told that 6 Hanley was not interested in a farmout, purchase, or 7 any kind of support for for the Kachina 8 Number 1 8 well.

As a result, Santa Fe reoriented the unit 10 to an east half, northwest quarter standup. 11 well was spudded on September 29, 1990, and was 12 drilled to the Wolfcamp formation.

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Before it was completed, Santa Fe decided 14 to proceed with the 8 Number 2 well, and sent its 15 first letter to Hanley Petroleum on November 12, 1990, requesting joinder or a farmout of Hanley's acreage. Hanley responded by letter dated November 26, 1990, claiming that Santa Fe failed to give Hanley enough information and requesting all logs, reports and Santa Fe's geological interpretations.

As the Division is aware, Hanley 23 subpoenaed certain data, which Santa Fe has supplied 24 to Hanley. We originally objected to producing the data because it was confidential.

Hanley also wanted to pay for Wolfcamp 2 costs only, and not any costs associated with the 3 pools spaces on 40 acres such as Bone Springs. 4 feel that this request is inappropriate, because the 5 Bone Spring at our location is wet and our geologist will discuss this further.

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Under the operating agreement we proposed to Hanley, the west half northwest quarter would be a working interest unit and Hanley would share any 10 production pools spaced on 40 acres. Furthermore, we offered to take a farmout from Hanley only as to the Wolfcamp, but they did not respond to this offer.

Third, Hanley was concerned about its override under a farmout because its lease has a sliding scale royalty. Santa Fe offered to insure Hanley a minimum override of two and a half percent. Finally, Hanley wanted to operate the well and I will discuss this later.

By letter dated December 3, 1990, and December 17, 1990, I responded to Hanley's letter. As I just discussed, we offered to take a farmout only as to the Wolfcamp, offered a minimum override, and stated that we wanted to operate the well due to 25 our experience.

We offered to let Hanley see the logs and 2 reports of the Kachina 8 Number 1 well through 3 November 12, 1990, provided that Hanley agreed to join or farmout. The reason we set this date is 5 because this is the date we decided to drill the 6 proposed Kachina 8 Number 2 well, and Hanley would be given the same data that we used when we decided 8 to drill the Number 2 well.

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Hanley sent us a letter dated 10 December 19, 1990, asking for an operating agreement, but essentially rejecting our offers. We point out that we have never received a counteroffer from Hanley.

We sent Hanley our proposed operating agreement, shown as Exhibit 5, which is the standard AAPL 1982 form, by letter dated December 20, 1990. There has been subsequent correspondence, phone On February 4, 1991, Hanley calls and a meeting. proposed an amendment to the operating agreement as to the rights below the base of the Bone Springs formation only.

We feel that we have made a good faith effort to get Hanley to join voluntarily in the well and ask that they be pooled into the well.

> Q. Now, Exhibit 3 is various correspondence

between Santa Fe and Hanley; is it not?

Α. Yes, it is.

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- And it includes both Hanley's letters and Santa Fe's letters?
  - Yes, it does. Α.
- Ο. And one other item on that February 4, 7 1991, letter, by that letter Santa Fe was informed 8 that Hanley desired to drill the well on its 9 acreage; did it not?
  - Α. Yes, it did.
- Does Santa Fe request that it be named Ο. 12 operator of this well?
- 13 Yes. We think that there are several Α. 14 good reasons why Santa Fe's the logical operator of 15 this well.
  - ο. Referring to Exhibit 2, would you discuss some of those reasons?
- Α. Santa Fe has substantial experience in 19 this pool having drilled or participated in nine 20 wells within the pool, with three additional wells currently proposed for this year. Santa Fe operates approximately 125 wells in New Mexico, including nine Wolfcamp wells, located in this pool and other 24 pools.
  - This is Santa Fe's prospect. We own

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interest in over 3,000 acres in this area shown on Exhibit 2, and we are the ones who developed the geology and who proposed this well.
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- Q. By this lease, is that the north half of Section 8 except for Hanley's acreage?
- A. Yet, it is. Santa Fe bought this lease in August 1990 and has drilled one well on the lease and plans to drill two more in the near future. Hanley sat on its 40 acre lease for years, until Santa Fe proposed the well. We believe that this should carry some weight because Santa Fe obviously desires to develop its lease.
- Q. Referring back to Exhibit 2, the north half of Section 8, exempts forever Hanley's acreage lags it is ownership of that acreage?
- A. Santa Fe owns 50 percent and Harvey E.

  17 Yates owns 50 percent.
- MR. KELLAHIN: What section did you refer to?
- MR. BRUCE: Section 8.

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- Q. And what about the south half of 22 Section 8, Mr. Murphy, does Heyco own interest 23 interest in that acreage?
  - A. No, they do not.
- Q. And what is Santa Fe's interest in the

south half of Section 8 or in the southwest corner of Section 8?

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- Santa Fe owns approximately 19 percent. Α.
- Okay. Referring to Exhibit 4, will you 0. just briefly set forth the proposed well costs by Santa Fe?
- Α. This is Santa Fe's well cost estimate 8 which indicates the dry hole estimate at just over \$453,000 with the estimate of a completed well just 10 under \$722,000. I'd like to refrain from going into detail on this and leave it to our engineers who 12 have more experience.
- 0. Does Santa Fe believe that well costs, 14 if the well is drilled at Santa Fe's location, 15 should be apportioned?
- Α. No, Our engineer and geologists will 17 discuss this issue further. Our basic position is 18 there is no other objective than the Wolfcamp which supports the drilling of this well. Therefore, we request that Hanley Petroleum bear 50 percent of the total well costs.
- Q. And what are your recommendations as to the drilling and supervision rates for Santa Fe's 24 proposed well?
- 25 Α. It is our recommendation that \$6,260 per

1 month be allowed for a drilling well and \$626 per 2 month be allowed for a producing well.

- Q. And are these comparable with 1990 Ernst & Young rates?
  - A. Yes -- to my knowledge.
- Q. And are these amounts that you have just recommended in line with drilling and supervision rates for other wells of this type in this area?
  - A. Yes, they are.

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- Q. And what penalty do you recommend against Hanley if it goes nonconsent to this well?
- A. We're requesting costs plus 200 percent.

  This is a figure used in operating agreements in

  New Mexico and our geologists will discuss the

  reasonableness of this proposed penalty.
- Q. And was Hanley Petroleum notified of this case in writing?
- 18 A. Yes, they were.
- Q. And is a copy of the notice letter submitted as Exhibit Number 6?
- 21 A. Yes, it is.
- Q. And were Exhibits 1 through 6 one
  23 prepared by you or compiled from company records?
  - A. Yes, they were.
- Q. And in in your opinion will the granting

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of this application be in the interests of
  conservation, the prevention of waste, and
  protection of correlative rights?
 4
          Α.
               Yes.
5
              MR. BRUCE: MR. Examiner, at this time I
6
  would move the admission of Santa Fe Exhibits 1
7
  through 6
8
              EXAMINER MORROW: Exhibits 1 through 6
  are admitted.
10
                         (Santa Fe Exhibits 1 through 6
11
                         marked for identification.)
12
              EXAMINER MORROW:
                                 I have just a
13
  question.
             Besides, I thought it might be
14
  appropriate, Mr. Murphy, if you could refer to your
15 Exhibit Number 2. The acreage shaded in yellow is
  acreage in which Santa Fe Operating Energy Partners
17
  has an ownership interest; is that correct?
18
              THE WITNESS:
                           Yes, it is.
19
              EXAMINER MORROW: Do you operate wells
20
  in the south half of Section 8.
21
              THE WITNESS:
                             No, we do not.
22
              EXAMINER MORROW: Are there Wolfcamp
23 wells in those--
24
              THE WITNESS: Meridian.
25
              EXAMINER MORROW: And is that --
                                                 is the
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well spot in the southwest east southwest; is that a 21 Wolfcamp well? 3 THE WITNESS: Yes, it is. 4 EXAMINER MORROW: Do you know what 5 acreage is dedicated to that well? 6 THE WITNESS: No, I do not. 7 EXAMINER MORROW: Mr. Kellahin? 8 EXAMINATION 9 BY MR. KELLAHIN: 10 Q. Mr. Murphy, your comments about the risk factor penalty requested in the pooling orders, the maximum 200 percent, If I understood you correctly, 13 are based upon geologic reasons? 14 Α. Yes. 15 ο. As you understand it, there are no land 16 reasons to explain the risk factor, it is simply 17 repetition of the conclusions reached by the 18 geologists based upon geologic reason risks? 19 Α. Yes. 20 I apologize for not having more than one copy of the Ernst & Young 1990 survey, but perhaps 22 we could share it collectively among ourselves. 23 Perhaps we can have the witness identify and mark 24 where he has pulled his overhead costs off of this 25 book and -- to see how they might compare, and then

I'll show it to the Examiner? 1990, you say? 2 EXAMINER MORROW: MR. KELLAHIN: Yes, it's the 1990 book. 3 The overhead rates were \$626 a month --4 Ο. 5 Α. Yes. 6 -- producing well rate and \$6,200 a Q. month drill well rate, did I remember that right? \$6,260 and \$626. Α. 8 9 \$6,260 and 626. Oh, I forgot the six. Q. 10 I'm going to show you the Ernst & Young book on 11 Page 14, for a identical well in West Texas, and 12 Eastern New Mexico. These Wolfcamp wells appear to 13 me to be within the category of depth from 10,000 14 feet to 15,000 feet; is that correct? Yes. 15 Α. And as I read across, it says that the 16 o. 17 mean monthly drilling well rate for 1990 is \$5,184 18 and then the monthly producing well rate, the mean 19 rate for 1990 for wells at this depth is 485. me show you what I'm reading from. 20 21 Α. Yeah. 22 Let me show it to the Examiner before Q. 23 you respond, Mr. Murphy. 2.4 Mr. Murphy, your proposed overhead rates 25 appear to be in excess of the Ernst & Young

1 tabulation for 1990 for identical wells at this 2 depth. How do you explain your conclusion that your 3 rates are in line with that survey?

- Well this is -- these numbers that I 5 was given come from our accounting office that --6 who provides the numbers. But if Hanley and OCD 7 believe the rates in Ernst & Young are proper, we'll 8 accept those.
- Let me go back to the ownership map and 10 perhaps Number 2 is --

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- MR. STOVALL: Mr. Kellahin, let me just interrupt you. Do you want to mark it? Is it your 13 intent to submit it so that we can refer to --
- MR. KELLAHIN: Perhaps to keep the record 15 straight, we might do that. I will tender that as Hanley Exhibit A. I do that because I've numbered my exhibits already from my presentation and it may confuse the records.
- So during the break, Mr. Examiner, I would propose that the Ernst & Young - Murphy would be marked and then submitted as Hanley Exhibit A. 21
- 22 EXAMINER MORROW: Xerox both pages and 23 submit that.
- 24 MR. KELLAHIN: Is that all right with 25 you?

1 MR. BRUCE: That's fine. 2 MR. STOVALL: I didn't want to lose 3 track of it. (By Mr. Kellahin) Let me direct your attention to Exhibit Number 2, when we look at 51 6 Section 8, Mr. Murphy? 7 Α. Yeah. 8 0. The display on Exhibit Number 2 shows 9 that with the exception of Hanley's 40 acre diagram 10 in the northwest of the northwest of Section 8, the 11 balance of the north half appears to be the same 12 common federal base lease; is that correct? 13 Α. This is correct. 14 Q. When we go to the south half of 15 Section 8, has the south half been divided into two 16 additional leases consisting of the southwest 17 quarter and then the southeast quarter? 18 Α. Yes. 19 0. Let's deal with the north half? 20 Α. Okay. 21 Currently in the north half, Santa Fe Q. 22 has drilled the Kachina 8 Number 1 well. This is correct. 23 Α. 24 Q. And that well, located in unit letter D 25 being the northeast of the northwest -- Unit

letter C of that section? 1 2 Α. Yes. The 80-acre spacing units the east half 3 of the northwest quarter? 5 Α. Yes. 6 When I look at that adjoining spacing Q. unit, the working interest owners will be the 8 Santa Fe Energy Group, if you will, with 50 percent, 9 and the Heyco Company with the balance 50 percent? 10 Yes. Α. 11 0. And then the Santa Fe Energy Group is 12 divided among a limited partnership in the operating 13 company in some fashion? The 50 percent interest is owned solely 14 15 by Santa Fe Energy Operating Partners. 16 Q. The production then from the Kachina 17 Number 8 is shared equally between Heyco and 18 Santa Fe Energy? This is correct. 19 Α.

Q. When we look at the north half of the northwest corner, the proposed spacing unit in that well, regardless of where it's drilled, if that is the spacing unit, Hanley would have 50 percent of the working interest, Santa Fe energy would have 25 percent, and Heyco would have the last 25

percent?

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- This is correct.
- ο. In looking at the application and the dockets for the hearing today in case 10211, you have asked for the forced pooling of not only those oil zones that would be spaced on 80 acres, but zones that would be spaced on 40 acres?
  - No, just on 80 acres. Α.
- So there is not an issue before the 10 Examiner about forced pooling any of the shallow rights with regards to Bone Springs or some other shallow oil zone?
- 13 No.
- 14 When we look at the 40 acre tract where 15 you propose to locate the well in the south quarter of that spacing unit?
- 17 Α. Yes.
- 18 All of the shallow rights above the top of the Wolfcamp oil zone would be shared fifty-fifty 19 between Santa Fe and Heyco would they not?
  - Α. Yes, this is correct.
- And Hanley would have no interest in 22 Ο. those zones if they produced, if the well is located 24 in the south 40?
  - Not under my original proposal. Α.

- Okay. Under your original proposal that preceded the forced pooling case, you had discussed with Hanley the formation of a working interest unit that would be larger than the spacing unit that you could obligate under a forced pooling order? This is correct. Α.
- Okay. You said that your initial contacts for the Kachina 8 well were with Hanley representatives, discussing with them their interest in participating with Santa Fe in their 40 acre 11 tracts so that arrangements would be made for the Kachina Number 8 well?
- 13 Yes. Α.

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- ο. When did you make that contact?
- Α. That was done in May of 1990.
  - Q. And with whom did you speak?
- I'm not able to recall the gentleman's 17 Α. 18 name I spoke to.
- 19 Q. You spoke with a man, as opposed to a 20 woman?
- 2.1 Α. Yes.
- 22 ο. You don't recall who the man was?
- 23 I vaquely remember Don. I don't know 24 what his last name was.
- 25 MR. STOVALL: You're talking about the

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Kachina 8. The Kachina 8 is the lease name; is that
 2
  correct?
 3
             MR. KELLAHIN: Kachina 8 is the existing
 4 offsetting producing well in the Wolfcamp in units
 5 letter Section 8.
 6
             MR. STOVALL: Kachina 8 Number 1?
 7 sure we're talking about the right well and lease.
 8
               The proposed Santa Fe well and the south
          Q.
 9 40 of the north half of the northwest does federal
10 what -- what's the proposed well name?
              Kachina 8 Number 2.
1 1
          Α.
12
          Q.
              All right. That's no wonder everybody
13 is confused. Kachina 8 Number 1 is the existing
14 well. For the record, Kachina Number 2 is the one
15 we're talking about in this case.
16
          Α.
              Right.
              All right, I'm with you. Did you talk
17
18 to Mr. Don Robbins? Do you think that's the man
19 you talked to?
20
          A. I'm not sure. I'm not going to be able
  to answer that.
22
          Q.
              Did you ever -- did you follow up that
23 conversation with any written document,
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24 correspondence or proposal to confirm the telephone

25 conversation?

A. No, I did not.

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- Q. You just abandoned the suggestion that Hanley should contribute their acreage for the Kachina Number 8 Number 1 well based on that conversation?
- A. We were eager do drill the well and were able to stand a well up, proceed it along those lines.
- Q. Let me see if I understand now for the lays acreage that Santa Fe has in the north half of Section 8, that is a royalty of one-eighth burden is the base lease royalty an eighth?
  - A. Yes, it is.
- Q. The next sequence of events is that

  15 Santa Fe and Heyco spuds the Kachina 8 Number 1 well

  16 on September 20th, 1990?
  - A. Yes.
- Q. Am I correct in my recollection that the rig for that well was released on October 30, 1990?
  - A. I'm not sure about the release date.
  - Q. Am I correct in recollection that the completion of that well occurred on January 13th of 1991?
    - A. Yes, I think that is correct.
    - Q. Do you have an explanation as to why the

rig was released on October 30, 1990, and the well 2 not completed until January 13th? 3 I do not know. You'll have to discuss 4 that with an engineer. The statement you made earlier about the 5 Q. 6 location of the well. 7 Yes. Α. And the fact that if it's located in the 8 0. 9 south 40, your geologist tells you that the 10 shallower zone, principally the Bone Springs, is going to be wet. And based upon that opinion you 111 12 propose not to allocate the costs of the well if 13 it's located in the south 40? 14 Α. No. 15 Any other basis for not allocating the Q. 16 costs other than that geologic opinion? 17 Α. No, there's not. Are you involved as a landsman, 18 19 Mr. Murphy, with any other aspects of the AFE for 20 this well, or in fact any other well? 21 No, I am not. Α. 22 Q. Other than distributing it to potential 23 parties to submit it for their approval and 24 discussion?

That is correct.

25

Α.

- So you would not be able to respond to ο. specific questions about the reasonableness of the AFE?
  - No, I would not. Α.
- And how it might compare to the actual costs for the Kachina 8 Number 1 well?
  - Α. No.

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- In terms of an operating agreement, 0. 9 Mr. Jim Rogers of Hanley and you, I think, have 10 exchanged correspondence and discussions about the model operating agreements?
  - Α. Yes.
- o. Can I conclude at this point that both 14 you and Mr. Rogers have come to an agreement on the contents of the operating agreement if one is 16 executed, or is there still a difference of opinion?
- I think there is still a difference of 18 an opinion, but I think there's no problem working 19 that out.
- Am I correct in understanding your ο. position is at this point, because the parties have 22 obviously different choices on well locations for 23 this well, they have differences on who is the 24 operator, they have differences in the cost of the 25 well, that we need the examiner's assistance in

```
1 order to determine how to proceed?
               Our engineer will discuss this later.
 2
          Α.
 3 But basically, there's no difference in cost.
               Okay. Do you believe that there is an
 5 opportunity, with additional negotiations, to reach
 6 a settlement between the parties with regard to this
 7 well, or are we going to need the Examiner to decide
 8 some of these issues?
               I think probably the Examiner will have
10 to decide some of these issues.
               Is it your responsibility to issue press
11
          Q.
12 releases on behalf of your company with regards to
13 the Kachina 8 Number 1 well?
14
          Α.
               No, it is not.
15
          Q.
               Did you know that there was a press
16 release --
17
               Yes, I did.
          Α.
               -- on that well?
18
          Q.
19
          Α.
              Yes, I did.
20
          Q.
               But that was not something you issued?
21
          Α.
               No, it was not.
               Is that something you can talk about or
22
          Q.
23 respond to?
24
               Yes it comes from our Houston
25 management.
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              MR. KELLAHIN:
                             May I take a moment,
 2 Mr. Examiner.
 3
              EXAMINER MORROW:
                                 If it's all right,
  while you're doing that I'll ask a question to clear
 5
  up a question Mr. Kellahin asked.
 6
              Did you say that Hanley and Santa Fe are
 7
  essentially in agreement on what should be contained
  in the operating agreement or can come to an
 9
  agreement?
10
              THE WITNESS: Yes, I don't think there
  will be any problem with that.
              EXAMINER MORROW: And on the well costs,
12
13 also?
              THE WITNESS: Well, the well costs are
14
15 basically the same. A RFE includes items that theirs
  does not, and our engineer will go into detail on
17 those.
              EXAMINER MORROW: Mr. Kellahin?
18
19
              (By Mr. Kellahin) Mr. Murphy, let me
  show you what I've had marked as Hanley Proposed
21
  Exhibit B and ask if this is the press release with
  which you are familiar?
22
23
               Yes, it is.
          Α.
24
               Is it customary for your company to
          Q.
25 issue press releases of this type on Wolfcamp oil
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wells?

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- To my knowledge on probably any well Α. that we drill, that we have success on, we're going to have a press release on it.
- Let me ask you about your correspondence 6 between you and Hanley. I'm interested in your letter of December 17th, Mr. Murphy.
  - Α. Okay.
- What was the purpose of the 10 December 17th letter. Without reading it in detail, Mr. Murphy, what was the idea that you were trying to convey to Mr. Rogers of Hanley?
- 13 Basically trying to set up something to 14 allow them to join in the well, set up a time where they could refer the data that they requested for a 15 commitment to join or farm out.
  - If that was your objective with the Q. letter, why had Santa Fe Energy asked your attorney to already file a forced pooling application that is submitted along with this letter that was dated December 11th, some six days before you signed the letter continuing discussions on participation in the well?
    - Just trying to cover all my bases. Α.
    - Well why would you propose to start Q.

forced pooling action prior to exausting good faith efforts to get Hanley to participate in the well?

- Because my management had put time Α. frames on us to get wells drilled.
  - What is that time frame, Mr. Murphy? Q.
  - Well, it depends on which well it is. Α.
- Is there a set procedure for you to 0. follow in cases like this?
  - Α. No there's not.

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- When you send out the initial proposal ο. 11 to any parties like Hanley offering them to 12 participate in a well, how long a time do you allow 13 to expire before you file a forced pooling case?
- 14 It's case by case, each one is 15 different.
- Did you make the judgment to decide when 16 Q. to file this forced pooling case against Hanley? 17
- Yes, I did. I felt in my letters and Α. their responses that it was going to be difficult to reach an arrangement, and in my experience that as soon as you have a forced pooling orders on the docket, it's easier to come to terms, quicker on 23 both sides.
- If you'll look at the sequence of 24 Q. 25 correspondence, you have proposed the well and soon

thereafter Hanley is asking you to provide them some 2 data by which they could make an informed choice on 3 this well. 4 Α. Yes. And in response to that you seek a 5 forced pooling order against them? 7 Α. Yes. No further questions. 8 MR. KELLAHIN: 9 MR. BRUCE: Can I ask some follow-up 10 questions? 11 EXAMINATION 12 BY MR. BRUCE: Mr. Murphy, Mr. Kellahin asked you if 13 Q. 14 there were some issues you thought the Examiner 15 might have to decide? 16 Α. Yes. From what -- from your experience, is 17 Q. 18 it your opinion that Santa Fe and Heyco on one side and Hanley on the other are very far apart on the 20 issue of well location? 21 Α. Yes, we are. 22 Q. And are you also pretty far apart on who 23 should operate the well? 24 Α. Yes, we are. 25 And that's really separate from the Q.

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operating agreement, or the terms of that operating
 2
  agreement?
 3
          Α.
               Right.
 4
               Now, referring back to your December 17,
          ο.
  1990 letter, there had already been several letters
 5
 6 between the parties, had there not.
 7
               Yes, there had been.
               And is it your policy to continue to
 8
          Q.
 9 negotiate even after a forced pooling application is
10 filed?
11
              Yes, it is.
          Α.
12
               Of course, since this letter three
          Q.
13 months have gone by, haven't they?
14
               That's correct.
          Α.
15
          Q.
               And the parties have still not been able
16 to reach terms, have they?
17
               They have not.
          Α.
18
               Would Santa Fe prefer to have Hanley
          Q.
19 join in its well?
20
          Α.
               Yes, we would.
21
               And not get forced pooling?
22
          Α.
               Yes.
23
               Now I believe Mr. Rogers' letter of
          Q.
24 November 26th did request certain well data; did he
25 not?
```

```
Yes, he did.
         Α.
1
2
         Q.
             Did Santa Fe consider that data
3 confidential?
4
         A. Yes. We thought that information was
5 confidential, and the only way we would give it up
6 is for a commitment in the well.
         Q. And really you thought you were
7
8 following past OCD practice by withholding that
9 data?
             MR. KELLAHIN: Objection, he's leading
10
11 the witness.
12
         A. Yes.
13
              Well, Mr. Murphy,?
         Q.
             MR. MORROW: Would you rephrase your
14
15 question?
16
             MR. BRUCE: Sure, Mr. Examiner.
               In your opinion, what was the past
17
          Q.
18 practice of the division regarding turn over of well
19 data?
20
               To my understanding and my experience,
         Α.
21 the well data was never -- when it was subpoenaed
22 was never turned over.
              Never required to be turned over?
2 3
          ο.
```

And furthermore, Mr. Murphy, did

24

25

Yes.

Α.

Q.

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Santa Fe -- Santa Fe and Heyco took all the risk on
 2 the 8 Number 1 well; didn't they?
 3
              MR. KELLAHIN: Objection. Mr. Bruce is
 4 testifying for his clients. The question is
  leading.
 51
 6
              EXAMINER MORROW: Try again, Mr. Bruce.
 7
              MR. BRUCE:
                           Oh, sure.
 8
          Q.
               Who paid for the 8 Number 1 well?
 9
               Santa Fe Energy Operating Partners and
10 Harvey E. Yates Company.
11
          Ο.
              Half and half?
12
               Fifty percent each.
          Α.
13
          Q.
               So they took all the risk on that?
14
          Α.
               Yes, we did.
15
              MR. BRUCE: Nothing further,
16 Mr. Examiner.
17
              MR. KELLAHIN: Couple of follow-up
18 questions, based on Mr. Bruce's cross
19
                        EXAMINATION
201
  BY MR. KELLAHIN:
21
               Let me understand the operating
          Q.
22 agreement position of your company, Mr. Murphy.
23 Have you agreed to accept the operating agreement
24 that Mr. Rogers, on behalf of Hanley, has submitted
25 to Santa Fe?
```

- A. They have not submitted to an operating agreement. They have submitted changes to the one I proposed to them.
- Q. Are those changes acceptable to Santa Fe?
  - A. Some of them are; some of them are not.
- Q. So we don't have an agreement on the operating?
  - A. That can be worked out.
- Q. If the well is drilled in the north
  11 40 acre tract, will Santa Fe participate in the well
  12 with Hanley?
- A. Yes, we will.

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- Q. If the Division Examiner decides that
  Hanley will be the operator, will Santa Fe
  participate in the well?
- A. Yes, we will, if the costs are apportioned out.
- Q. You want the costs apportioned out if the well is located in the north 40?
- 21 A. Yes.
- Q. But not apportioned out if it's in the
- A. That is correct.
- Q. Did you have any involvement in the

```
decision about the location of the Kachina 8
  Number 1 well?
              No, I have no --
3
         Α.
              Are you aware that it's 500 feet from
4
         Q.
5 the common boundary with the east side of the
6 spacing units that would be dedicated to the Kachina
  8 Number 2 well?
7
8
         Α.
             No, I was not.
9
             MR. KELLAHIN:
                            Thank you, Mr. Examiner.
10
              EXAMINER MORROW:
                                 Mr. Murphy, you talked
11 about your experiences in the area. Would you point
12 out the Wolfcamp wells that have been drilled and
  are operated by Santa Fe in this area?
14
              THE WITNESS:
                           We have the Kachina 8
15 Number 1, of course. And we are currently drilling
16 the Kachina 5 Number 1. It's located in the --
  lets see, excuse me for a moment. It's in the south
17
  west, southeast quarter of Section 5.
18
              EXAMINER MORROW: All right. I believe
19
20
  I see it spotted right there.
21
              THE WITNESS: Yes, sir. Our geologist
  can give you -- and our engineer can tell you more
22
  about the wells we do operate at the Wolfcamp than I
23
24
  can.
25
             EXAMINER MORROW: Do you know how many
```

```
there are?
 2
              THE WITNESS: We operate nine total.
                                 In this area?
 3
              EXAMINER MORROW:
              THE WITNESS: In this area I believe
 4
 5 there's two, or maybe three.
 6
              EXAMINER MORROW: Two or three plus the
 7
  one drilling?
              THE WITNESS: Yes.
 8
 9
              EXAMINER MORROW: All right.
10
              MR. STOVALL: I think you asked my
11 question.
             That's okay.
              EXAMINER MORROW: All right.
12
                                             The
13 witness may be excused.
              Call Mr. Thoma to the stand.
14
15
              (A recess was taken at 9:20 a.m.)
16
                      JOHN L. THOMA,
17 was called as a witness and, having been previously
18 sworn, was examined and testified as follows:
19
                        EXAMINATION
20 BY MR. BRUCE:
              Would you please state your full name
21
22 for the record?
23
               My name is John Thoma.
24
          Q.
               And who do you work for and where, in
25 what capacity?
```

- I am a senior geologist for Santa Fe 1 Α. 2 Energy Resources.
  - Q. And have you previously testified before the OCD as an expert geologist?
    - Yes, I have. Α.
- And your credentials were accepted as a 6 ο. matter of record?
  - Yes, they were. Α.
- And are you familiar with the geology 10 involved in both the Santa Fe and Hanley cases?
- 11 Α. Yes, I am.

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- Mr. Examiner, I tender the 12 MR. BRUCE: 13 witness as an expert.
- MR. MORROW: We accept his 14 15 qualifications.
- 16 Mr. Thoma, would you please refer to Santa Fe Exhibit Number 7 and describe the 17 18 geological basis for your Wolfcamp well location.
- 19 ο. Exhibit Number 7 is a montage of several 20 prospective intervals within the lower Wolfcamp 21 formation, in the area of interest. The cross-22 section on the bottom of the exhibit, 23 cross-section B to B prime traverses the prospect 24 area from the south, on the west end of the section

It runs through -- it starts in the south and Royalty West Corbin Federal Number 9, which is located in the southwest, southwest of Section 8, runs through the proposed Santa Fe Energy location, the Kachina 8 Number 2 in the southwest of the northwest of Section 8; continues into the Santa Fe Energy operated Kachina 8 Number 1, in the 8 northeast of the northwest of Section 8; and then terminates in the Oxi Federal AG Number 2 and in southwest -- I'm sorry, southeast of the northeast of Section 8.

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On that cross-section I've highlighted in brown the bounding marker beds for each of five prospective carbonate intervals. They are labeled from top to bottom AC, AD, AE, AF, and AG. Those would be the prospective carbonate intervals.

The isopaks -- or rather the maps on the right-hand side of the montage are isopaks, clean carbonate isopaks of carbonates in three of the five intervals. In the prospect area I believe that there will be three prospective carbonates, the AE, the AF, and the AG.

And that's based primarily on what we're 24 seeing developed in the Kachina 8 Number 1, as well 25 as what we have seen developed immediately south of

the area in the West Corbin Number 9, and in other 2 wells on to the south of that.

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The clean carbonate map utility utilizes a gamma ray cutoff of 40 API units. The intervals that are mapped, the thicknesses mapped are shown in 6 blue on the cross-section. That blue is the carbonate thickness which is less than 40 API gamma ray units.

You can see from looking at the three isopak maps that the overall depositional trends of the carbonates, the productive carbonates in the area is from the north, northeast, to the south, southwest.

Each of these carbonate units were deposited, we believe, Santa Fe believes, as carbonate detritis shed from the Wolfcamp shelf edge to the north. The production that develops within these carbonate lenses is highlighted on each of the isopak maps.

For example, looking at the map in the upper right-hand corner the AG carbonate -- the producing wells from this carbonate are shaded The other wells, which have thicknesses of the AG present, may or may not have been tested in 25 the zone to date.

And the same is generally true of the AF map and the AE map, the producing wells from that interval are shown. You can see that there's a wide scatter of production from each of these zones in the area immediately south of the prospect location, the 8 Number 2.

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Further, it appears that there is a general relationship between carbonate thickness and the probabliity of encountering producible reservoir conditions in the Wolfcamp. The Wolfcamp reservoir in this area is notoriously unpredictable in the development of reservoir quality within clean carbonate lenses.

In the Santa Fe Kachina well, for example, we encountered a large thickness of clean carbonate in the AF zone. And if you'll look at the two logs on the section, I've got a porosity log on the left and a recidivity log on the right. you can see that there is very good porosity developed.

I would define good porosity as anything greater than 4 percent. We have up to 10, 12 percent in this well. And we've probably got, if you use a 4 percent cutoff, upwards of 50 to 60 feet 25 of matrix, good matrix porosity.

If you move directly south into the south land royalty well you can see that you have very thick, clean carbonate section, but very little porosity developed. You can go ahead and map porosity, which I have done in the area, and it generally follows these depositional thicks -- the carbonate thicks, but not in all cases.

So whether you use an iso porosity map or a clean carbonate map, I think either one will -is useful as a prospecting tool and useful in high grading locations from one location to another.

12 I've chosen to use a clean carbonate map.

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And you can see that the Kachina well, 14 the 8-1, is located right along the axis of a fairly well developed carbonate thick trend in each of the 16 three interval maps.

You can also see that the location, the proposed location, the 8 Number 2, is located generally along depositional strike, with the 20 Kachina 8 Number 1. And so I'm anticipating that we will encounter at least the same clean carbonates conditions, and hopefully the same degree of porosity development that we've seen in each of these zones.

The Haily location on the other hand in

the northwest of the northwest quarter of Section 8 is clearly moving towards the depositional edge of these carbonate deposits. And so I feel that in 3 4 the Wolfcamp you are increasing your risk, statistically increasing your risk, by moving 5 towards the edge of the lobe at the Hanley 6 location. 7

And I feel that the better of the two locations -- the lower risk of the two locations 10 for the Wolfcamp would be in the southwest of the northwest of Section 8 where Santa Fe has located the well.

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- 0. Why don't you move on to Exhibit 8 and discuss the Bone Spring in the area of interest?
- Okay. In the Bone Springs I've mapped what we believe is the primary commercial target in And there are two dolomites the prospect area. 18 developed in the first Bone Spring carbonate. labeled them here as the Sniper dolomite and the Young deep dolomite on the cross-sections. cross-section on this montage A to A prime starts over in Young north field at a Santa Fe operated 23 producing location, the Sharpshooter Number 2, State Number 1. 24

That well was completed in -- it was

completed in October of 1989, and is currently producing at top allowable Bone Spring rates which is 234 barrels of oil a day from the Sniper zone, with no water.

Moving east toward the prospect area, we move into an Meridian operated well, the Soutland Royalty West Corbin Federal Number 9 -- 19, excuse me. Santa Fe Energy has a working interest in this well. Both the Sniper dolomite and the Young deep dolomite is present in this well. There is a clearly defined oil/water contact in the West Corbin Federal Number 19.

If you'll look at the two logs again on a cross-section, the log on the left is a porosity log, the log on the right is a resistivity log. And the oil/water contact is clearly defined by the transition from higher resistivity, two or three hundred in this area upwards to 500 dolms dropping down to less than 100 dolms for the balance of the reservoir.

In fact, the well was tested across that oil/water contact, as the perforations are shown, and the well was completed producing a fairly large amount of water. It was completed producing

54 barrels of oil, 276 barrels of water per day.

And it has remained at about those rates since 2 completion.

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Continuing west into the Southland 4 Royalty West Corbin Federal Number 7, again there is a very well developed dolomite, porous dolomite 6 development, in both the Sniper and the Young deep In the Sniper it was both drill stamp tested zone. 8 and production tested, and it was proven to be 9 wet.

From both DST and -- actually, the DST 11 was sort of encouraging. They did recover some gas 12 to surface and a little bit of oil. They went in, 13 perforated it and recovered -- produced the -- a little while during testing, we were recovering 15 rates of 9 barrels of oil and 120 barrels of water a 16 day.

You can see that well is proximal to the 18 projected oil/water contact as defined in the West 19 Corbin Federal 19.

I might point out if you look, as we have, at a number of these wells across this boundary on the structure map, you can see the oil/water contacts, and many of these wells over 24 here as well. And, in fact, the wells along there 25 that have been completed from the Sniper zone have

produced a fairly large amount of water with the And, in fact, some of them have gone entirely 2 oil. to water at this point.

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Moving through the proposed location, the Kachina 8 Federal Number 2, based on the structure mapping, and the structure mapping utilizes a constant rate of dip as established by a number of wells in the area. And that dip is -- rather the oil/water contact established along that rate of dip places the 8 Number 2 location well below that projected oil/water contact.

The Kachina 8 Federal Number 1 came in high to our 8 Number 2 location and does have some oil column, apparently, although it's untested to date. But based on shows and resistivity, I believe 16 that that probably is productive. It came in high, 17 but I believe the 8 Number 2 will be down dip.

It's clear also from looking at this that the Hanley location will in fact be in the oil If they develop proper reservoir conditions, pool. which I believe they have a reasonably good chance of doing, I believe they will have an oil column in 23 the Sniper dolomite.

And then moving on off to the west --25 east, excuse me again -- in looking at this Oxi

Federal well. Again, the Sniper zone, while 2 untested, is below the oil/water contact. The Young deep zone was tested, and gave up large amounts of 4 water, 4,301 feet to be exact.

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The Young deep zone you can see is wet all the way across the prospect area, will likely be 7 low at both locations and wet -- both the Hanley and the Kachina 8 2 location. And again that water leg is not only demonstrated from resistivity but 10 the oil/water contacts has been penetrated in several wells and the Young north field notably in 11 12 the Sharpshooter State to Number 1, which I previously discussed.

- So, Mr. Thoma, regarding Santa Fe's proposed location for the Kachina 8 Number 2, what is your opinion regarding any requests there may be to apportion well costs at that location?
- Because of the fact that we don't feel Α. that there is any potential to be had in the primary objective in this area in the Bone Spring, the carbonates, the Sniper and Young deep carbonate, we feel that costs should not be apportioned in the 8 Number 2.
- 24 Alternatively, what is your opinion 25 regarding the well if it's drilled at Hanley's

proposed location?

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- The well drilled at Hanley's location, if we have no right in the Bone Spring, which we 4 currently do not have, and drill the well at drill 5 location, I feel costs should be apportioned because costs should be apportioned to the base of the 7 Bone Spring, that is -- because they clearly are 8 within the projected oil pool for the Sniper 9 dolomite.
- 10 And what penalty do you recommend against Hanley, if it goes nonconsent and Santa Fe's 11 application is granted? 12
  - Α. I request costs plus 200 percent.
  - And what is that based on? 0.
- 15 Α. That is based on primarily the geologic risk associated with the Wolfcamp.
- And are there any examples of that risk 17 ο. in looking at your Wolfcamp map? 18
- 19 Yes. If you'll look at this production map located at the upper left-hand corner of the 20 21 montage, I've labeled or color coded all Wolfcamp 22 producers a dark green. It's evident from looking at this production map, closely, that the producability of the Wolfcamp varies greatly from 25 one location to the next, for the very reason that I

cited earlier, of the erratic developments of porosity within the clean carbonate limits.

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An example of this would be looking at two wells, one of them located in the northwest of the northeast of Section 18, that well was drilled by Meridian. Santa Fe has a working interest in the well, participated in the well. To date -- it was completed in June of '89 -- to date it has produced 60,000 barrels of oil and our engineers feel that 10 it will likely come in the 150,000 barrel range.

The direct north offset to that well, the 12 West Corbin Number 16 located in the south, 13 southwest of the -- I'm sorry, the -- yes, the southwest of the southeast, that well is essentially a Wolfcamp dry hole. It is right now serving as a disposal well for water in the field. We penetrated fairly large thicknesses of clean carbonate in the AF zone as well as in the AG zone. However neither zone has porosity developed.

And as a result, the well during testing made a thousand barrels of oil, but was subsequently plugged back because of noncommercial production from the Wolfcamp.

24 And there are a number of examples around 25 the field like this. So the risk is not only

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geologic, but there is considerable reserve risk
 2 because of the geology.
 3
          Q. In your opinion is the granting of
  Santa Fe's application in the interests of
 5 conservation and the prevention of waste?
 6
          Α.
               Yes.
 7
               And were Exhibits 7 and 8 prepared by
  you or under your direction?
 9
          Α.
              Yes, they were.
              MR. BRUCE: Mr. Examiner, I move the
10
11 admission of Santa Fe Exhibits 7 and 8.
12
              EXAMINER MORROW: Exhibits 7 and 8 are
  admitted
13
14
                         (Santa Fe Exhibits 7 and 8
15
                           marked for identification.)
16
              MR. KELLAHIN: Mr. Carr, do you have
17
  questions?
18
              MR. CARR: I have no questions
19
                        EXAMINATION
20 BY MR. KELLAHIN:
21
               Mr. Thoma, let me discuss with you the
          0.
   Bone Springs analysis and then we'll come back to
23
  Wolfcamp, if that's all right?
          Α.
24
               Sure.
25
          Q. Looking at the structure map which you
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displayed on Exhibit Number 8, what is the structural difference between the Hanley location and the Kachina 8 Number 2 location in that 80 acre spacing unit?

- The Hanley -- the contour interval on 5 6 this map is 25 feet. The dark lines are -represent 100 foot increments. The location of the 8 Hanley well would be approximately at 4560, so I'd say a minus 4560. The Santa Fe location is projected at 4660, minus 4660. 10
- Hanley has approximately 100 foot 11 0. structural advantage then in its location in the 12 north 40 versus the Santa Fe location in the south 13 40? 14
  - Α. That's correct.

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- The orientation of the structure in the Ο. Bone Springs, does that follow the reef front that 17 was deposited for the Bone Springs so that the face 18 of that reef front is generally oriented east west? 19 Is that how I read your structure map? 20
- Α. The structure -- I think you're stepping beyond what you can interpret from the structure The structure map does not necessarily have to 23 24 reflect dip along the reef front. We're looking at 25 a depositional setting at the toll of the reef front

which does not necessarily have to directly align itself with the reef front.

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I'm not really quite sure, Tom, what you're -- the structural orientation is almost precisely east-west -- on this map.

- ο. On this map in the structure, on the Bone Springs?
  - Yes. That's again based on the control.
- ο. You're satisfied that you have adequate control in the Bone Springs to make decision about 10 the orientation of the structure for the Bone 12 Springs?
- Α. Yeah. And I've used very reasonable contouring methods to contour this structure. You 14 15 can see there are no large breaks or anomalies in the rate of dip across the area. And I believe that -- you know, based on what you're saying over to the west, in Young north, there is a fairly constant rate of dip established through this interval.

So I'm not just -- you know, I'm using the control over here, but I'm also looking at this area and saying are there anomalies? Because certainly if there was a way to -- a reason to bring 23 24 a high through here, I would have been optimistic 25 and brought a high through here.

And that's what I'm asking you, the degree of confidence with regards to the structural orientation as it applies to the Section 8 area?

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- Right. I have very good confidence that it's a reasonable and accurate interpretation.
- Q. Am I correct in understanding that for the Bone Springs you would anticipate that the carbonate, as mapped on the isopak would be perpendicular to the structural line you've shown 10 on the structure so that when -- so that when you map the isopak, you're going to see it perpendicular to the axis of the structure on Section 8?
  - Repeat that for me?
  - When I look at the isopak and compare it to the structure map, it looks like on the isopak that the areas of greatest thickness on the dolomite mapped on the isopak are perpendicular to the structure?
- That's correct. Keep in mind that the structure you're looking at is the structure at the top of the carbonate and not the structure at the 22 base of the carbonate. The structure at the base 23 of the carbonate may be different, because you're looking at basically sedements that are shed off the 25 reef and they're going to deposit themselves out of

suspension in areas where they will flow to down the 2 slope.

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So typically, if you mapped the base of this carbonate, there may be, in fact, a low here -well, I shouldn't point to that map. A low here (indicating) which would have caused the accumulation of these carbonates.

To answer your question, I'm not sure what you're asking me. You're really looking at the map and stating essentially what the map is showing. Yes, at the top the dip on these carbonates is perpendicular to the dip on -- to the 13 deposit.

- When we move to the Wolfcamp -- you've 15 mapped the top of the structure of the Wolfcamp?
- No, the structure map is at the top of Α. the AF. 17
- 18 The top of the AF is the basis for the control of the structure map that you've shown? 19
  - That's correct. Α.
- Would the structure be different if you 21 ο. had mapped the base of the Wolfcamp?
- 23 It probably would be different. Α. 24 would show -- it would be somewhat different, Tom. 25 I honestly couldn't tell you to what degree.

mean, I've done some base of Wolfcamp mapping in the area and you see there some area lows similar to what you're seeing in the Bone Spring at the base of the carbonate. You're seeing low areas which are, I assume, focusing the deposition of the carbonate. 6 The sediments are running towards that low and being dropped into it.

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But, again, one thing I might point out between these two intervals is that in the Bone Spring you are sitting right at the toe of the reef, the slope. In the Wolfcamp I believe you are way out in front of the reef front. You're at -basically, if you were to look at a cross-section through either the Bone Spring or the Wolfcamp reef fronts, the Bone Spring reef front would come down and right at the very base you would have the carbonate deposited debris.

The Wolfcamp debris -- and your slope is fairly steep. As you move further away from the edge of that shelf, that reef front, that slope flattens out dramatically.

- Are you speaking of Bone Springs? Q.
- 23 Α. I'm speaking of both. It's the same general structure of both.
- 25 So the structure you see here and the

relationship between the sediments that are deposited in these intervals, and the resulting structural configuration, may be different than what 31 you see in the Bone Spring because you are on a 5 flatter -- the sediments were deposited on a flatter surface. 6

- 0. You have taken the position -- or made the geologic judgment to separate out the Wolfcamp into various zones, AF, AE, AG?
  - Right, right. Α.

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- Q. Did you prepare a gross map, if you will, on all the clean carbonate in the Wolfcamp to see what that isopak would look like? 13
- I did early on. If you'll look at these three maps and add them together, they would look like these three maps. Because there's not a lot of 16 displacement of the thicks between the zones. thicks are stacking, more or less.
  - In order to use the isopak as a useful tool to find Wolfcamp oil, am I correct in understanding that the object is to penetrate as many of these Wolfcamp zones that have the greatest thickness?
    - That's correct. That's correct. Α.
    - When we look at all your isopak maps, Q.

one of the control points is the Kachina 8 Number 1 well? 2 3 Α. Correct. On the AG map you show that as having 31 feet of clean carbonate? 5 6 Α. That's correct. 7 And that was the perforated interval in that well bore? 8 I show -- yes. I mean this is the well bore here (indicating) and the perforation is 111 actually extended a little bit below where we had carbonate. 12 13 ο. Let me show you what we've introduced as Hanley exhibits -- being, Mr. Thoma, this is that press release from your company summarizing the 16 information on that well. It says the Bone Springs formation also appears to be oil bearing? 18 Α. Right. 19 Demonstrate that for us on your log for Q. the Kachina 8 Number 1 well. It's shown in the green shadings then on Exhibit Number 8? 22 Α. That's correct (indicating). 2.3 Q. Did you find in that well the presence

of water and -- or the apparent presence of water

in any of the Wolfcamp?

A. We have -- we have not tested either of the other two prospective Wolfcamp zones. I would -- based on log analysis, I would anticipate this zone to have water in it.

- Q. That would be the middle zone?
- A. I'm sorry, the AF zone, to have water in it -- a mixture of water and hydrocarbons. The AE zone probably will be mostly hydrocarbon bearing, very little water, based on the log analysis.
- Q. When we look at the AG zone, the lower zone that was perforated, did that produce water?
  - A. No, it did not. Very little.
- Q. When we look at your structure map in the Wolfcamp what is the difference in structure between the Hanley location and Santa Fe's proposed location for the Kachina 8 Number 1?
  - A. Approximately 45 feet.
- Q. Is the occurrence of water a problem for operators that are producing wells in the Wolfcamp?
- A. In this particular field area, based on our experience, we've participated in, I believe, now up to 9 -- well, 10 wells. And I've looked at a number of the other producers in here. Water is not -- not generally a significant problem. Almost every Wolfcamp zone will produce conate waters, some

drive conate water. It is a solution gas-derived reservoir in the lower Wolfcamp. And water encroachment to date has not been a problem.

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- Q. When you look at the structure map on the Wolfcamp displays and find the orientation of that structure, and then find the orientation, the general orientation trends for all the isopaks, it 8 does not appear that you've oriented the isopaks so 9 that they're perpendicular to the plane of the Is that a correct observation of the structure. display?
  - It's a correct observation. But I'm not orienting these (indicating) because of this (indicating). This map is a result of the data you see here and the control. I am not using the isopak to control what the structure should look like. conversely, I'm not using the structure at the top of this carbonate to control what the geometry of any of these deposits should look like.
  - Am I correct in understanding, though, 0. that the geometry of the deposit generally should be perpendicular to the plane of the structure?
- In the Wolfcamp that's not necessarily 23 -- that's not necessarily true. It does not have 24 25 to be.

- So it doesn't bother you that in mapping the contour lines for the isopak that those -orientation of the isopaks is not perpendicular to the structure?
  - Α. No. No.

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- Let's look at the AG isopak. look immediately to the west on the zero line -immediately to the west of either of Santa Fe or the Hanley location and find the zero contour line?
  - Α. Right.
- The next well out to the west is not ο. deep enough to provide data for control point for the isopak; is it?
  - Α. Which well are you talking about?
- 15 It says NDE. I presume that's "not deep 16 enough"?
- That's correct. 17 Α.
- 18 What is the basis, then, of drawing the ο. 19 zero line as you have put it on that display?
- Α. The overall rate of thinning and thickening that you see between wells in the area to the south, and then on to the south of that in South Corbin -- and I've got strike, depositional strike, qenerally established here. We've got the Kachina 25 well, the 31 feet, and if you go directly southeast

from the -- or southwest excuse me, from the Kachina 2 Number 1 to the West Corbin Number 16 in the 3 southwest of the southeast, and 7, you have 4 35 feet. So those two wells are about on 5 6 depositional strike with one another. And because 7 you have other thicker wells east of that, the West 8 Corbin Number 12 in the northwest of the northeast, 9 is thicker. 10 So I believe the thick axis is to the 11 east of the West Corbin 16 in section 17, and the 12 Kachina Number 1 in Section 8. 13 The thickest depositional axis then runs 14 northeast to southwest on this display? 15 Α. That's correct. 16 Ο. When we look at the well spot here for 17 the Santa Fe Kachina 5 Number 1 well --18 That's correct. Α. 19 ο. -- in the southwest of the southeast of 20 Number 5? 21 That's correct. Α. 22 Q. Do you have any logs on that well to help you with your interpretation at this point? 24 No, Tom. Α. 25 Q. What's the status of the well?

- It's currently drilling. Α.
- There is another location in the south 0. 3 half of Section 8, in the northeast of the southwest; is that a drilling location?
  - Yes. That well -- yes, that well was Α. logged last week.
  - 0. Have you integrated the logs into your display?
- 9 They have not. They have not been --10 didn't have time to redo this display.
- 11 So you don't know -ο.
- 12 But I can tell you that they do confirm Α. 13 this interpretation.
- 14 Okay, so you have looked at the logs Ο. 15 enough to satisfy yourself that the information from 16 that well -- those well logs is consist with your interpretation on Exhibit Number 7?
- 18 Α. That's correct.
- 19 0. When we look in Section 8 over in the 20 southeast of the northeast quarter --
- 21 Α. Yes.

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- 22 0. -- it is the first well on your B,
- 23 B prime cross-section?
- 24 It's at Point B prime. Α.
- 25 Q. It's at Point B prime? It shows on the

AG isopak to have -- what's that number 30 feet?

I believe so.

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- Thirty feet of net clean carbonate? That was a dry hole in that zone wasn't there?
- They plugged it. Whether or not it's a dry hole is very questionable. If you look at the drill stem test that was run over this interval, they recovered -- the 651 feet of slightly oil and gas-cut mud in the sample chamber, which is very significant in recovering 1300 cubic feet of oil, 50 cubic feet of mud and 4.7 cubic feet of gas. 11 12 Their shut-in pressure-- initial shut-in pressure was 5261. Their final shut-in pressure was 5236. 14 Very, very little drawn down.

We haven't done an analysis of the draw down but I'm very encouraged by the recovery we got 17 from that test. And I'm not sure that that zone 18 should be -- is a dry zone.

- Despite your assessment though, the Q. operator, based upon that drill stem test chose not to complete the well net zone?
  - Α. Yes, that's correct. That's correct.
- 23 How is the AG isopak useful to us to 24 find oil if we're looking for areas of greatest net 25 clean thickest carbonate, and I find an area that's

got 30 feet, and yet it's at a location where you drill stem test the well and don't complete it?

Α. Well, that's -- that's one of the risks of the Wolfcamp. You know, I'm not a brain What I can tell you is that if you drill surgeon. outside of where the AG carbonate is present, you for sure have a dry hole. All right?

So the first prerequisites of finding production in the AG zone is to be in the carbonate.

> Ο. Now --

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The second prerequisite is to have 13 reservoir conditions. One of the dominating 14 reservoir conditions controling reservoir conditions in the AG is fractures, not porosity. One of the 16 controlling factors in the AG zone, in determining producability of the AG zone, is not matrix porosity 18 but fracture porosity.

Meridian, who has drilled probably upwards of 40 wells south of here -- as I stated we've been in 25 percent of those wells with them -has utilized many different techniques for determining whether or not there is fracturing 24 present in the AG zone, including log analysis, and 25 a number of other techniques.

And as yet they have not been able to find a successful technique in predicting where the 3 fractures occur, or even determining whether or not they have them when they drill the well. And we have not, either.

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However, if you don't have the carbonate, you're not going to have product. So you've got -the first prerequisite, you've got to have this. And the second is extremely hard to determine.

- Both locations meet the first criteria 0. of having carbonate; do they not?
- Α. They both meet the criteria of having 13 carbonate. However, your risk of encountering 14 reservoir conditions within the carbonate is greater 15 at the proposed Hanley location than it is at the 16 proposed Santa Fe location because of the difference in thickness -- in the carbonate thickness.
  - ο. To understand the display you have circled in green -- or shaded in green, those wells that have penetrated the AG zone of the Wolfcamp and have been tested in that zone and produce oil?
    - That's correct. Α.
- 23 Can I distinguish or note from this ο. 24 display which of those wells have been tested in 25 that zone and not shown to be productive?

- From this display you cannot.
- Do you know within the area above the zero contour line on the AG display how many of those are dry holes versus producers?
  - From the AG? Α.
  - Q. Yes, sir.

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Α. No, because as I stated a moment ago, 8 you cannot determine whether or not you have a producer from a log analysis of the AG. 10 way you know if you have a producer in the AG, if you've got the carbonate is by testing it. Not necessarily by DSTing it, as we've seen up here in the Oxi well -- although if I had that DST, I would 14 have run pipe on it. I would have recommended 15 running pipe.

But straight from log analysis you cannot 17 determine.

- When we look at the AG isopak and look 19 at the thickest part, if you will, or portion of the 20 pod in -- I lost track of my sections here 21 Section 9. In section 9, there is a 50 foot contour 22 line that shows the greatest thickness on the 23 isopak. What is your control point for that 24 thickness?
  - There is no control, other than it does Α.

develop to that thickness in the area and the well in Section 9, in the northwest of the northeast 3 reaching 42 feet, suggests that there is a fairly good likelihood that it may thicken a little bit 5 thicker or thicken a little bit more.

- When we look at the northeast, northeast of Section 8, the zero contour line plunges southwardly into Section 8; what's the basis for doing that?
- Okay. The basis is the thin well that Α. 11 we have down in Section 18 in the south, in the 12 southeast of the northeast, which is very thin, five 13 feet thick. That is the reason for bisecting that 14 lobe.
- When we look in the southwest of the 16 southeast of Section 8 and find the well shaded in green, that's got 21 feet in it, you see that one?
  - Α. Correct.

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- Did that well produce out of that zone?
- Α. I believe it did, Tom. I honestly can't tell you how much. That well is completed. And Meridian typically begins at the bottom of the Wolfcamp zone and perforates clean carbonate from 24 the bottom up until they get a commercial producer.

In that well they started in the AG, I

believe they had noncommercial rates, some were in 2 the range of 20 to 30 barrels a day. They came up 3 and they tested AF, AE. And they added maybe small 4 increments of oil.

They got up to the AC, and they made --6 they had a bridge plug set -- I recall now. I just 7 remembered the log. They do have a bridge plug I'm sorry, Tom, they do have a bridge plug 8 set. set in the lower Wolfcamp shale. And they are 10 producing -- they tested it, but they're producing 11 from AC, predominantly from the AC zone.

- Q. Let me show you what I've marked as 13 Hanley Exhibit C, and ask you if you can identify 14 this?
  - Α. It's the completion report, completion reports on the Kachina 8 Number 1 well.
- If you'll turn it over on the back side, ο. it talks about, in Section 37 of the summary of porous zones, find for us the Wolfcamp zones that 20 relate to the information on the Wolfcamp entries for the C108 --
  - Α. The--

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- I'm sorry, the C104? Q.
- 24 MR. STOVALL: 105.
- 25 MR. KELLAHIN: 105. Completion report?

- A. Okay, 306 TO 350 would be the AG.
- Q. Let me write that down. The 30 --
- A. 11306 to 11350.

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- Q. -- is the last entry, and that will be the AG?
  - A. That's correct.
  - Q. All right, sir.
- A. The next entry, next shallower entry from 11150 to 246 is the AF.
- The next entry from 10972 to 11,026 would 11 be the AE.
- Q. We're looking at the structure map on
  the Wolfcamp Exhibit Number 7. Describe for us the
  structural position of the proposed Hanley location
  to the structural position of the Kachina 8
  Number 1 well?
- A. I have already discussed that, Tom.
- Q. Well, answer the question. What is the footage relationship between the two?
- A. We're 50 feet high. Are you -- the
  Hanley location is 50 feet high to the proposed -to the proposed --
- Q. That wasn't the question. Let me do it
  again. The Kachina 8 Number 1 is the current
- 25 producer that you have to the offset?

- I'm sorry, I'm sorry, Tom. Excuse me. The 8 Number 1 is located at the Sub C is 7179. The proposed Hanley location is approximately 7180. So they should be about flat.
  - ο. Okay.

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- Α. Maybe a little bit higher. Actually it should be a little bit high. It should be more like about 7160. The Hanley location should be about 7160 from that map, which would be 19 feet high to 10 the Kachina 8, 1.
  - ο. And then as we move south we're going down structure, and that was approximately how many feet, tell me again?
  - Α. 50 feet.
- 15 Q. Okay.
- 16 Α. To the 8 Number 2 location. I might point out that on this -- on this report, I listed 18 oil and water because when we first completed the well -- I lifted oil and water from the AG zone 19 because when we first completed the well it did 201 produce some water.
- 22 Apparently it was low, though. I didn't 23 know the water analysis -- I didn't have the water 24 analysis when I did this -- It was very early on in 25 the testing of the well. Because as you notice when

we completed the well, we completed it making 59 2 barrels of water. That water has since dried up. 3 And it's basically producing all hydrocarbons now.

- Q. Did you participate, Mr. Thoma, in the choice of location for the Kachina 8 Number 1 well?
  - Α. Yes, I did.

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- Q. What was the basis for picking that 8 location?
- Α. Two reasons. One was the Wolfcamp, 10 because I basically had this map projected out to 11 the northeast as you see it now. The other reason 12 was for the Bone Springs.
- Ο. You had a surface problem within that 14 40 acre tract, if I'm not mistaken, that required 15 you to move the well off of a standard 660 location?
  - That's correct. Α.
- 17 Q. Why did you choose too move it to the 18 west, as opposed to the east?
- 19 That was done -- basically, the 20 direction -- the minor movements from the standard 21 was chosen, for lack of a better word, by the operations engineer. And he's here and will testify 23 later.
- 24 It did not make a geologic difference to Q. 25 you then, to move from 660 to the 500 foot location?

With the level of control we had at the time -- and I point out that at the time this well was not here. We had a well -- the nearest well was the Oxi well in the southeast, northeast of 5 Section 8, and that was it.

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I was going to say, but this was in the Bone Spring. We had a Bone Spring control point in 8 the southwest of the southeast of the thick which 9 controlled the Bone Spring. But basically you were 10 very close to a mile from your nearest control. I felt that moving the well 100 feet, with that control, did make a difference.

With the level of control we have now, 14 with the Kachina 8, 1, I think it does make a difference as to where you put the well.

- The well to the north in Section 5 is at ο. an unorthodox location; is it not?
  - Α. That's correct.
- What was the geologic basis for putting 19 that at the unorthodox location for the Kachina 5, Number 1 well in Section 5? 21
- Because we were stepping north from the Α. Kachina 8 Number 1, and as you can see there is no 24 well control to the north of the 8 Number 1. 25 you know, I'm pushing these contours out here using

a constant rate of thickening. And so I felt that going beyond that type of geologic interpretation or projection would add risk. And we had a choice of moving the

location north from the standard, to solve our topographical problems, but because of the lack of 7 control and the increased risk, I recommended that the well be moved south.

- Without any more information than it Ο. 10 reduced the risk to place the Kachina 5 well closer 11 to the Kachina 8 Number 1 well?
  - Repeat the question, Tom? Α.
- 13 If you're at a standard location for the Q. 14 well in -- Kachina 5 well?
- 15 Α. Right, right.
- 16 You're going to be farther away from the Q. 17 Kachina 8 Number 1?
- 18 Α. Right.

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- 19 ο. And you're in an area where you have no 20 control?
- 21 Α. Correct.
- 22 And so the choice was based upon reducing the risk by moving closer to the Kachina 8 23 24 Number 1 well?
- 25 Α. That's correct.

- Did you have any seismic information, 0. Mr. Thoma, to help you define the structure?
- We have had access to seismic data in this area in the Wolfcamp. And because water encroachment hasn't been a problem, determining 5 6 where you are on structure hasn't been a very high 7 priority in placing our locations.

We have looked at seismic in the area. 9 We have not incorporated it into any of the 10 interpretations because we feel it really doesn't 11 represent a worthy investment, risk reducing tool 12 for exploration and developments in the Wolfcamp.

Meridian has used the data to the south 14 in the Corbin area and they generally have reached 15 the same conclusion. They use it, but only because 16 they have it.

- 17 And you've not used it in any of your 18 work here?
- 19 Α. We have not incorporated it in these 20 displays.
- 21 MR. KELLAHIN: That concludes my 22 examination, Mr. Thoma. Thank you.
- MR. BRUCE: I have a couple of follow-up 2.3 24 questions, Mr. Thoma.

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## 1 EXAMINATION 2 BY MR. BRUCE: Referring to the isopak on the 3 Q. AG, the one in the upper right-hand corner, some of those Wolfcamp wells are producing from that zone 5 6 and some are not; is that correct? 7 Α. That's correct. But I can't tell -- some may not be 8 0. 9 productive; is that correct? 10 Α. That's correct. 11 And some just were not tested; is that ο. 12 correct? 13 Α. That is correct. 14 Q. And one final question: From what you just testified a few minutes ago, what you're stating is that the results of the 8 Number 1 well 16 17 merely confirm your prior geologic mapping; is that 18 correct? 19 That's correct. That's correct. Α. 20 MR. BRUCE: I have nothing further, 21 Mr. Examiner. 22 EXAMINER MORROW: Okay. Anything more 23 Mr. Kellahin? 24 MR. KELLAHIN: I'm through, thank you. 25 EXAMINER MORROW: On the allocation of

1 well cost you talked about, Mr. Thoma, what is the proposal for allocation of well cost in that Hanley 2 location, if the well were located there? 3 What is the existing THE WITNESS: 5 proposed --6 EXAMINER MORROW: What do you mean by allocation of well cost? 7 THE WITNESS: Well, that if we don't 8 have rights in the Bone Spring, which we don't, 10 because -- well, if we don't have rights to any pools on 40 acres, which we do not have in the 12 northwest northwest, as a 100 percent Hanley lease, that 40 acre lease, if we drove the well there, to 13 my understanding we would not have any rights on 40 14 acre pools, which the Bone Spring is. 16 And so if we drove a Wolfcamp back there with Hanley and paid for all costs from the surface 17 18 to the Wolfcamp, we are paying for costs from the surface to the base of the Bone Spring, or to the 19 20 top of the Wolfcamp, for which we will generate no 2.1 revenues. EXAMINER MORROW: 22 Would the same thing 23 apply if the well were in the south portion? Does Hanley have any interest down there? 24 THE WITNESS: 25 They do not. We have --

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there are two aspects of the the location down
  there. First is that we have offered Hanley -- to
 2
 3 Hanley to form an 80 acre working interest unit and
  pool them in the Bone Spring rights or in the Bone
  Spring -- or in all 40 acre pools in the southwest
 6 and the northwest.
 7
              You can argue that that's a moot point
 8 because we believe it's going to be wet.
                                             That's
  also the other reason why we believe they should pay
10 their costs through the Bone Spring. Because there
111
  probably is not going to be any reserves to be had.
12 But we've offered to pool in case there is, in case
13
  we find a zone that we're not expecting. We're
  willing to give them --
15
              EXAMINER MORROW:
                                 Do you know what the
  dollar amount is on the allocation, what the split
17
  would be?
              THE WITNESS:
                             I would prefer if one of
18
19
  the other witnesses testified to that.
20
              EXAMINER MORROW:
                                 Are you the one to ask
  about the locations that Hanley operates in this
22
  area, the Wolfcamp locations? I mean that Santa Fe
2 3
  operates?
24
              THE WITNESS:
                             Am I -- I'm sorry?
25
              EXAMINER MORROW: When I asked the
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earlier witness about the Wolfcamp wells operated by
 1
  Santa Fe in this area he preferred to wait for
 2
  another witness. Are you the one or shall we wait
  for another?
 5
              THE WITNESS:
                             I can testify to that.
 6
              We have -- on this display, if you'll
   look at the Bone Spring display, I believe that the
  map that he had -- that Larry had --
 8
 9
              EXAMINER MORROW:
                                 Go ahead and look at
10
  the Wolfcamp on over there -- because they're
11
  marked, the Wolfcamp completions are marked --
12
              THE WITNESS:
                            Right, right.
13
              EXAMINER MORROW: -- and circled and
  colored yellow.
14
15
              THE WITNESS:
                             On the Wolfcamp display we
   operate the Kachina 8 Number 1, the Kachina 5
17
  Number 1. Meridian operates the balance of our
18 working interests to the south.
19
              If you go approximately three miles west
20
  into the Young north pool, we're looking at
21
   generally the same Bones -- Wolfcamp reservoirs.
                                                      Wе
22
   operate the Wolfcamp tests in the northwest
23 northwest of Section 15. And we operate two
24 Wolfcamp tests just off this map in Section 8 of
25
  1832. So we operate three wells in 1832, three
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Wolfcamp wells in 1832, and two wells in 18 --
 1
  Wolfcamp wells, that is, in 1833.
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 3
              EXAMINER MORROW:
                                 In the AF zone in
 4
  Wolfcamp interval in the Hanley -- the Kachina 8
  Number 1, tell me again what you said concerning the
 5
 6
  potential for that interval? What do you expect
  when you finally perforate that?
 7
 8
              THE WITNESS;
                             This interval, the AF?
 9
              EXAMINER MORROW:
                                 Yes, sir.
              THE WITNESS:
10
                             I expect oil and water.
   I would expect fairly high rates ever oil and water
11
  because of the porosity. That may be the actual
12
   rate, the quality of the rate may be more dependent
   on fracturing. I don't know that right now.
14
              And that's one of the things we will
15
   learn when we perforate this, because there are very
17
   few reservoirs in the south Corbin pool that have
   this kindly of porosity developed.
18
              And to date most of the reservoirs are
19
20
  thinner reservoirs such as this AE reservoir, and
21
   have shown some indications of fracturing.
22
              If you believe that the micro SFL log
23
   spiking is an indicator of fracturing, you do see
   some of that here, and you do see it in some other
24
25
  wells. You don't see quite as much of it here in
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the AG. And that's strictly a quantitative --
  qualitative analysis. There's really no way of
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3
  quantitatively --
             EXAMINER MORROW: You do think, though,
  it would be commercial --
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6
              THE WITNESS: Yes, I do.
7
             EXAMINER MORROW: You would expect an
  attempt at completion there?
8
9
              THE WITNESS:
                           Yes, yes.
              EXAMINER MORROW: Mr. Stovall?
10
11
             MR. STOVALL: Yes, I just want to
  clarify my understanding of what Santa Fe's position
13
  is as far as the location. Tell me why Santa Fe
  prefers the -- its proposed location as opposed to
14
15 Hanley's.
             It's just from a geologic --
16
              THE WITNESS:
                             Just from a geologic,
  because we believe we will encounter thicker
17
18 sections of carbonate in the Wolfcamp. Irregardless
19 of structural position. Fifty feet, I don't believe
  will make a significant difference as to whether or
201
21 not we have commercial hydrocarbon production in
22
  these Wolfcamp zones in the AG, AF or AD.
23
              I think what will determine whether or
24 not we have commercial production is, one, whether
25 we have thick clean carbonates; and, two, whether or
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not there's reservoir developed in that carbonate.
1
              MR. STOVALL: But you don't expect any
2
  Bone Spring in your location?
              THE WITNESS:
                           That's correct.
4
              MR. STOVALL: Now with Hanley's location
5
  then, do I understand you correctly to say that you
6
  are expecting thinner carbonate developments in the
7
8
  Wolfcamp?
9
              THE WITNESS:
                             That's correct.
              MR. STOVALL:
                             But that there is a
10
  greater potential for Bone Spring development.
11
12
              THE WITNESS:
                             Right. But we don't have
  any rights in that.
13
14
              MR. STOVALL:
                           Well, I understand that.
15
  I'm just asking you as a geologist, not as an
  interest owner.
16
                             No, if we had an interest
17
              THE WITNESS:
   -- if we're going to speculate here, I guess I'll
18
  go ahead and speculate. If we had an interest up
20
  here, I still wouldn't drill this as a Wolfcamp
  location. I would drill it as a Bone Spring
21
  location. And I would still drill this as a
22
  Wolfcamp location (indicating).
23
              MR. STOVALL: But not --
24
25
              THE WITNESS: But for other reasons that
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will be testified to later. There are other reasons
  why I wouldn't drill there, okay? That go beyond
3
  just geology.
              But geologically speaking, if you take
4
  reservoir out of it, and you just look at the
5
  geology, I would drill this (indicating) as a
6
  Wolfcamp well, and -- yes, I would drill the
7
8
  8 Number 1 as a Wolfcamp -- 8 Number 2 as a Wolfcamp
  well, and I would step north then and drill the
10
  northwest northwest as a Bone Springs location.
11
              MR. STOVALL: So you would drill both
  wells if you controlled all the acreage; is that
  what you're saying?
13
14
              THE WITNESS:
                             Right.
15
              MR. STOVALL:
                             One to the Bone Springs
  and the other one through the Bone Spring to the
  Wolfcamp?
17
18
              THE WITNESS:
                             Wolfcamp, correct.
19
              EXAMINER MORROW:
                               Is the AF zone a good
  thick one there in the middle.
20
                             Yes, indeed.
21
              THE WITNESS:
                                 If you drill the well
22
              EXAMINER MORROW:
23
  up location north, the Hanley proposed location,
  what would you expect, less water production from
24
  that interval than you would have at your 8 Number 2
25
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location? 1 No, because I believe that 2 THE WITNESS: 3 the water in this reservoir is going to be colinated water, water that is bound in the reservoir and will be produced with the oil, not as a dry, but with the 5 oil. And it's a function of the nature of the 7 reservoir rock. 8 I believe that this is -- we don't have a core through it, but from looking at samples I 10 believe it's a very chalky limestone, so I believe it's going to have a lot of water in it. That's why 11 I'm not too concerned about the structural position. EXAMINER MORROW: You don't think the 13 14 amount of water in there is related to structure? THE WITNESS: No, no, I don't -- I don't 15 see a oil/water contact in here. You look at the 16 porosity, look in the resistivity log, you don't see 17 oil/water contact in here. And that's why, I don't 18 think there's going to be a significant impact in 19 20 that respect. EXAMINER MORROW: That's all I had. 21 22 Anybody else? The witness may be excused. 23 We'll take ten. 24 25 (A recess was taken at 10:30 a.m. until

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10:45 a.m.)
 1
              EXAMINER MORROW: I believe everybody is
 2
  here. Let's go ahead and start again.
 3
              MR. KELLAHIN: Mr. Examiner, to keep the
 4
 5
  paperwork straight at this time, I'd like to move
  the introduction of Hanley's Exhibits A and B and C
 6
  where we are.
 7
              MR. BRUCE: No objection.
 8
 9
              EXAMINER MORROW: Hanley's Exhibits A, B
  and C are admitted
10
                         (Hanley's Exhibits A, B and C
11
12
                           admitted into evidence.)
                     RANDY OFFENBERGER
13
14 was called as a witness and, having been previously
15 sworn, was examined and testified as follows:
16
                        EXAMINATION
17
  BY MR. BRUCE:
18
               Would you please state your name and
          Q.
19
   city of residence for the record?
20
               My name is Randy Offenberger and I live
21
   in Midland, Texas.
22
          Q. And who do you work for and in what
23 capacity?
          A. I'm a senior reservoir engineer with
24
25 Santa Fe Energy Resources.
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- 1 Q. Have you previously testified before the 2 Division?
  - A. No, I haven't.
- Q. Would you please outline your beducational and work experience?
  - A. Okay, 1978 graduate of Marietta College,
    Bachelor of Science, petroleum engineering. Since
    '78 I've had 13 years of engineering experience, 10
    being in reservoir, 3 being in drilling and
    production with City Service, Southland Royalty
    Company which was bought out by Meridian and Tom
    Brown, and, more recently, Santa Fe.
    - Q. How long have you been with Santa Fe?
- 14 A. I've been with them a year and a half.
- Q. And for Santa Fe are you in charge of reservoir engineering with respect to the area of interest in Santa Fe's application?
- 18 A. Yes, I am.
- MR. BRUCE: Mr. Examiner, I would tender

  Mr. Offenberger as a expert in reservoir
- 21 engineering.

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- 22 EXAMINER MORROW: All right.
- Q. Mr. Offenbarger, would you refer to
  Mr. Thoma's Deposition Exhibit 7 and describe the
  pattern of Wolfcamp development in this pool?

Okay. On Exhibit 7, on the production Α. map here, we have highlighted a field development pattern that's been established in the south Corbin Wolfcamp field. The highlight here is in a line with the diagonal 80-acre spacing for that field which has been predominantly developed by Meridian.

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And as you can see here from the highlights, we have a northeast southwest pattern of development. And our location here in the southwest of the northwest is along that same pattern of development.

We have selected that location not only for geologic reasons like John had mentioned, but also for reservoir reasons, that we have experienced through our joint interest in these wells down here 16 with Meridian oil company.

- Regarding that reservoir, have you Q. 18 reviewed the record of case -- OCD Case 8802, in which the South Corbin Wolfcamp pool rules were 19 20 established?
  - Yes, I have. Α.
- 22 And have you reviewed the exhibits and Q. 23 the testimony in that case?
  - Yes, I have. Α.
  - Could you discuss the outcome of that Q.

case for the Examiner, please?

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- That case addressed the issue of field spacing rules in the South Corbin Wolfcamp. And in that testimony that Meridian had conducted, they had shown economically that the feasible pattern of development is 80-acre spacing. From that information they determine that the diagonal well 8 pattern development is the pattern that they had 9 supported in the testimony itself.
- 10 0. And what in that case -- what was the 11 drainage which Meridian established in that case -or I believe it was Southland Royalty Company, was it not? 13
- 14 It was Southland Royalty Company during Α. 15 the time of which they were being purchased by 16 Meridian Oil Company.
- Okay. And what drainage was established 17 Q. 18 by Meridian -- or Southland Royalty?
- 19 They had established 80-acre proration 20 units through their technical work identifying that 21 80 acres is the feasible drainage pattern.
- 22 Q. And what does the average well recover, 23 the average Wolfcamp well recover, in that pool?
- 24 Based on their testimony, they had Α. 25 identified that the average well in in area can

recover approximately 100,000 barrels of oil. 2 testimony was presented back in '86. And since that 3 time we've updated a lot of our production and projections and support that recovery. We feel still today that 100,000 per well is what we feel is 5 a typical Wolfcamp recovery number. 6

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- Now using that number would you compare 0. drainage at Santa Fe's proposed location with 8 Hanley's proposed location?
- We have an existing producer here, the Kachina 8 Number 1, that is producing out of the AG Number 1. We're looking at that well as probably a 12 typical Wolfcamp well, which we can recognize there will likely be an approximate 80-acre of drainage 14 experienced by that producer. 15

And by our 8 Number 2 location, what we are intending to do there is capture reserves in the south half of the north half that would not be captured with the Hanley Wolfcamp well. Based on pressure data that we have experienced in other fields, particularly over here in Section 15 where Meridian has drilled 40 acre offset wells -essentially 40 acre -- it's a state wide spacing 24 there.

> Are those Wolfcamp wells? O.

Those are Wolfcamp wells. And those were developed -- the original leaseholder that 3 Meridian had acquired the acreage from forced them to drill the 40 acre wells. And what they've seen from the first well to the second well, after six months of production -- keeping in mind that that is an equivalent 40-acre offset -- they've seen 1,000 pounds go up in interference drainage from one well to the 40 acre offset.

And that's supporting more or less why we feel that we need to stick to an 80-acre program over here at the Corbin -- South Corbin Wolfcamp.

- Now, the Meridian wells you just Q. mentioned to the west, are those not in the Wolfcamp?
  - Α. Yes, sir.

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- And would that pressure drop that 18 Meridian has seen in six months, would that indicate interference on a 40 acre spacing?
  - Yes, it would. Α.
- And are those wells producing out of the 21 Q. same carbonate as the Kachina 8 Number 1?
  - Yes, they are -- the AG carbonate. Α.
- What is your estimation of reserves that 24 Q. would not be recovered from the south half of the

northwest quarter of Section 8, if the well is drilled at Hanley's proposed location?

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- Assuming that we can encounter a typical Α. 4 well, or Hanley encounters a typical well and we 5 have a typical well, we're looking at some drainage 6 interference between those two wells. And along 7 that line, we're looking at a portion of the 8 northwest quarter, essentially being undrained from what we feel has been established drainage radiuses 10 over in this area.
- But have you made an estimate of how many barrels would be left -- barrels of oil would be left in the south half of the northwest quarter if Hanley's well is drilled as opposed to 15 Santa Fe's?
- Yes, I have. If this well is drilled Α. 17 within the next four to five months, my estimate 18 based on volumetric analysis assuming 100,000 barrel 19 recovery for the Hanley location, we're estimating approximately 40, or 50 to 60 percent of a typical Wolfcamp well reserves will be left behind, one either being produced by an offset well or left in 23 the reservoir undrained.
- 24 So you're estimating 50,000 to 60,000 Q. 25 barrels would not be recovered by Hanley's wells?

That's true. Α.

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- And now regarding offset wells, looking Q. 3 to the south half of Section 8, how many wells are in that southwest quarter?
- We have three wells here, two being 6 producers and one pipe has been set in the northeast 7 of the southwest.
- So there are two wells in the southwest Q. quarter of Section 8 which are now completed or soon 10 will be complete in the Wolfcamp; is that correct?
- There are two that are completed in the Α. 12 Wolfcamp and there is one to be completed in the 13 Wolfcamp.
- I was just looking at the southwest 14 15 quarter now.
  - Oh, the southwest, right. There's one producing and one to be completed.
- And in your opinion would that well in 18 Q. 19 the northeast quarter of the southwest quarter of 20 Section 8, would that drain a portion of the south 21 half of the northwest quarter, if the well -- if 22 Santa Fe's well is not good?
  - I believe it will.
- 24 And do you have an estimation of what o. 25 percent of that 50,000 to 60,000 barrels would be

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drained by that well in the southeast quarter -- I
 2 mean in the northeast quarter of the southwest
 3 quarter?
               Approximately, probably, 30,000 barrels
 4
          Α.
 51
  of oil.
               And the remainder would just be left in
 6
 7
  the ground; is that correct?
 8
               Right, that's correct.
          Α.
 9
          ο.
               So, and I believe -- were you here
10 earlier whether Mr. Murphy was testifying about land
11 ownership?
12
          Α.
               Yes, I was.
               And Santa Fe's interest in the Kachina 8
13
          0.
14 Number 1 well is about 25 percent -- is 25 percent;
15 is that correct?
16
               Could you restate that?
               Santa Fe's and Heyco's interest in the
17
          Q.
18 Kachina 8 Number 2 well, the proposed well, whether
19 it's drilled at Hanley's or Santa Fe's location,
20 they're each 25 percent?
               That's correct.
21
          Α.
22
          Q.
               And in the southwest quarter, Santa Fe's
23 interest is only 19 percent; is that correct?
               That's correct.
24
          Α.
25
               And Heyco's interest is zero percent?
          Q.
```

Α. That's correct.

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- So if the reserves in the south half of 0. 3 the northwest quarter are going to be recovered by the wells, the well or wells in the southwest quarter, that will impair Santa Fe's and Heyco's correlative rights?
- Yes, it will. I might mention also at Α. 8 this time, if I may, is that Meridian Oil Company, they did get in contact with us and agreed to 10 support our location as a location that they feel is a location that would efficiently and effectively 12 drain our area. And likewise they do have ownership 13 in Section 7, into the south half of 8. They do not 14 have ownership in the south half of 8.
  - Now you mention in Southland Royalty, Q. Case 8802, you mention economics and some economic testimony there. Are the assumptions that Southland Royalty Company made in that case still valid?
  - I believe so. They used \$20 oil and \$1.50 gas and I think that's within reason of today's product prices that we're seeing.
- In referring to the northeast quarter of 0. section 17, is there a proposed location in that 24 area?
  - Yes, there is. On the map itself, you Α.

can see that there is an industry location in the 2 northwest and the northeast quarter which Meridian 3 has proposed that well -- let me rephrase that. 4 Santa Fe has proposed that well to Meridian, and 5 have since, based on what we've seen in discussion 6 with them, we have mutually agreed to move that 7 location to the diagonal location which is in the northeast, northeast of 17.

- So it would conform to the field-wide 10 wells spacing currently in effect?
  - That's correct. Α.
- 12 In your opinion will the drilling of a Q. Wolfcamp well at Santa Fe's proposed location be in 14 the interests of conservation and prevention of 15 waste, and the protection of correlative rights?
- 16 Α. Based on what we've seen out here in the Wolfcamp, I believe that's correct.
- 18 And conversely, in your opinion, will Q. drilling of the Wolfcamp at Hanley's location hinder Santa Fe's and Heyco's correlative rights?
  - Yes. Α.
  - Q. And will it also result in waste?
- 23 Α. Yes.

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24 MR. BRUCE: Mr. Examiner, I have no 25 further questions at this time. I would ask that

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the Examiner incorporate the record of Case 8802 in
2 the record of this case.
3
             MR. KELLAHIN: I would object,
4 Mr. Examiner.
             EXAMINER MORROW:
                                 What's the basis of
5
6 your objection?
7
             MR. KELLAHIN: The order entered in that
8 case establishing the pool rules is Order R-8181B;
9 the order speaks for itself. We're not here to
10 litigate the pool rules or the reasons behind the
11 pool rules. I think it's inappropriate to
12 incorporate that record into the context of this
13 case. This is not an attack on the pool rule.
14
             MR. BRUCE: Mr. Examiner, we're not
15 attacking the pool rulings. But I think it serves
16 as a basis for the reservoir testimony that
  Mr. Offenberger has just given, and also will assist
17
18 the Examiner in determining whether or not waste
19 will occur if Santa Fe's application is not granted.
20
             MR. STOVALL: Mr. Examiner, if I might
  advise you -- or make some comments and
21
22
  suggestions, I think Mr. Offenberger has testified
  to the essential elements of what's in that case; is
24 that correct, Mr. Bruce.
25
             MR. BRUCE: I think the basic findings
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of the case.

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MR. STOVALL: I'm sorry, go ahead.

MR. BRUCE: I said I think he stated the 4 basic findings of that case.

And by incorporating the MR. STOVALL: 6 record, you complicate your job a little bit. 7 need to -- perhaps you can reserve that question or 8 act on it. The only question would be -- is not 9 whether the information is accurate or valid, but 10 whether it really helps you or whether you want to 11 have to include that information. It's a practical 12 consideration on your part not a -- I'm trying to 13 save you some work, that's what I'm trying to do, 14 Mr. Examiner.

And you know, unless Mr. Bruce feels that 16 there's some specific things in there that would be particularly relevant -- I don't disagree -- I'm not suggesting that the information is not helpful. I think it's just -- becomes voluminous, quite frankly.

If we can identify anything that would be 22 helpful to support the specific concerns that you've 23 got that might be useful, that would be nice. 24 of course the order is -- obviously affects this 25 case directly. The findings-- the order and

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findings I think --
2
             MR. BRUCE: Well, that's fine, if you
3
  take the order and findings into the record, I don't
4 have any problem with that.
5
              EXAMINER MORROW: Let's do that then,
6 that sounds like something we can all agree on.
7
             MR. KELLAHIN: I have no objection,
8 Mr. Examiner.
9
             EXAMINER MORROW: All right, fine.
10 Excuse me. We took-- what was the order number.
             MR. STOVALL: I think it would be R8181B
11
12 and then the pool rules were made permanent by
13 R8181C.
              EXAMINER MORROW: Let the record show
14
15 that we took notice of that, please.
16
             MR. STOVALL: Let me ask you whether in
17 connection with -- can you tell me what 8181 and
  8181A address, are they relevant?
19
              MR. BRUCE: 8181 denied the request.
20
  8181A was an order nunc pro tunc, just correcting
  some typos in the orders.
21
              MR. STOVALL: And B was the --
22
              MR. BRUCE: Was the de novo --
23
24
              MR. STOVALL:
                             Okay.
25
             EXAMINER MORROW: Mr. Carr, are you up?
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I have no questions.
 1
              MR. CARR:
 2
                         EXAMINATION
 3
  ВΥ
       MR. KELLAHIN:
               Mr. Hoffenberger you have described --
          Q.
 5
   is it Hoffenberger?
 6
          Α.
               No, it's Offenberger, starts with an O.
               How do you spell it?
 7
          ο.
               O - F - F - E - N - B - E - R - G - E - R.
 8
          Α.
 9
          0.
               Offenberger?
10
               Right.
          Α.
               Mr. Offenberger, you have relied upon
11
          Q.
12 the pool rules for the South Corbin Wolfcamp pool to
   support your argument concerning maintaining a well
   pattern that would put wells so that you would not
15 have Wolfcamp wells on offsetting 40 acre tracts?
16
          Α.
                Essentially, that's the basis of my
17
  testimony.
                Are you familiar with those rules?
18
19
          Α.
                The 40-acre, or the 80-acre spacing
20
  rules?
                All the rules in the South Corbin
21
          Q.
22
  Wolfcamp that are issued under Order 8181B?
                Not the total details. I am familiar
23
  that spacing is 80 acres per ratio unit.
25
                Are you familiar with Rule 2 of that
          Q.
```

order that does not specifically designate a quarter quarter section for a well in an 80-acre spacing unit? No, I'm not. 4 Α. Are you aware that under Rule 2, the 5 operator is allowed to drill that well in any of the 6 40 acre tracts in an 80 acre spacing unit? 7 8 Α. No, I'm not. 9 Are you aware under Rule 3 that an Ο. operator without notice and hearing can obtain a nonstardard 40-acre spacing unit for a Corbin 11 12 Wolfcamp pool well? 13 Α. No, no. MR. KELLAHIN: Mr. Examiner here's a 14 15 copy of those rules. 16 0. The basis of your position is that we need to get the well in the south half so that it 18 will not be competing with the Kachina 8 Number 1 well in the northeast of the northwest? 19 20 Not just so much the Kachina 8 Number 1, 21 but also the offsets to the south, which there is currently a well that's being completed, the 22

Q. Did your concern over keeping the wells 25 in offsetting 40-acre tracts so that they are more

Wolfcamp Number 26 -- or the West Corbin Number 26.

23

```
equitably spaced enter into Santa Fe's decision to
 2 drill the Kachina 5 Number 1 well, which is
 3 diagonally offset on a 40 acre spacing unit from the
 4 Kachina 8 Number 1 well?
               Could you rephrase that, I'm not --
 5
          Α.
               Find the Kachina 5 Number 1 well.
 6
          Q.
 7
               I got it, okay.
          Α.
 8
          Q.
               You see that?
 9
          Α.
               Uh-huh.
10
               You find the 40 acres that the Kachina 8
          Q.
11 Number 1 well is located in?
12
          Α.
               Yes.
13
               They're diagonally 40 acres apart;
          Q.
14 aren't they?
15
          Α.
               Yes, they are.
               That violates the pattern that you're
16
          0.
17 trying to establish in the pool; doesn't it?
               No, it doesn't. I don't believe it
18
          Α.
19
          Because what we're looking at, also, is
20
  drainage pattern set up to the north 5, in Section
   5, the diagonal that we would see on a development
21
   up in the northeast of the southeast of 5.
23
               Explain to me again, how do you deny
          ο.
24 handling the opportunity for a 40 acre west offset,
25 to the Number 8 -- 8 Number 1 well, and at the same
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time give yourself a direct 40 acre diagonal offset
  to the northeast?
              (Attorney-client conference.)
 3
              MR. BRUCE: Do you understand the
 4
 5
  question?
               No, I really don't. I'm not really
          Α.
 7 clear what the question is.
               (By Mr. Kellahin) Let me try again.
 8
          Q.
 9 You see the 40 acres where the Kachina Number 8 well
10 is in?
11
          Α.
               Right.
12
               If you go to the 40 acres that adjoin
13 the northeast corner of that 40 acres with the
14 Kachina 8 well?
15
          Α.
            Uh-huh.
16
              You're now in the 40 acres where
          0.
17 Santa Fe did the Number 5 well; right?
18
          Α.
               That's correct.
19
               Those wells are going to be competing
20 for -- you've got two wells on 80 acres, in effect;
21 isn't that true?
          A. That's correct.
22
23
               Correct. How is that any different
          Ο.
24 than if we have the Kachina 8 Number 1 in the
25 northeast of the northwest and have the Hanley
```

Wolfcamp well drilled in the northwest of the northwest? Same thing, right? 2 I disagree. 3 Α. 4 Q. Okay, why? Because of the fact of your drainage 5 6 radius that you'll be experiencing. The Hanley 7 location, itself, will see some interference with our 8 Number 1. The 5 Number 1, granted, will see some limited interference from the 8 Number 1, but you will also be draining to the northeast, as our isopak indicates. It's only the basis of the isopak that 12 Q. tells you as a reservoir engineer what the likely shape of that drainage is going to be? 14 15 Α. In most cases. There is de facto 40 acre spacing in a 16 Ο. 17 number of instances in the South Corbin Wolfcamp 18 pool; are there not? Could you identify those on --19 20 Yes, sir. If you'll look in Section 17 Q. and look at the southwest of the northwest quarter there's a well. Got it? 23 Yes. Α. 24 40 acres to the west is another Wolfcamp 25 well. Got it?

Α. That's correct.

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- 0. South of that is another Wolfcamp well; right?
  - That's correct. Α.
  - You've got three wells on 120 acres? 0.
- The situation there, Tom, is that you do 7 have different Wolfcamp intervals that are producing amongst those three wells. So when we're talking about reservoir drainage, we need to keep in mind 10 that although it is all Wolfcamp, there are separate intervals that are being drained from those 40 acre 12 wells.
- The well in the southeast -- the 14 northeast of Section 18 is producing from the AF 15 zone -- the Wolfcamp AF zone.
  - All right, sir. Q.
- The well located in the southwest of the Α. 18 northwest in section 17 which is the West Corbin Number 5 is producing out of the AF, plus the AD 19 20 zone, which, reviewing internally, we feel a lot of the production is coming from the AD zone.
  - Q. Okay.
- 23 Α. You go to the south of the West Corbin 24 Number 1, you have the West Corbin Number 10 which 25 is in the northeast of the southeast of Section 18.

And that well is producing out of the AF and the AG, What you have here is a combination of 2 also. 3 reservoirs that are contributing to the production.

- Q. All right. And each of those three 5 wells, at least one combination has the AF open in 6 all three?
  - Α. That's correct. But may not be the premier producing zone in any particular well.
- Have you verified the average recovery 10 -- ultimate recovery from the Corbin Wolfcamp wells, the number was 100,000 rounded off? 11
  - Approximately. Α.
- 13 Have you verified that with the decline Q. 14 curve analysis?
  - Α. Yes, I have.

4

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- Ο. And do you have those with you?
- Not readily available. Α.
- What is the range of recoveries for 18 Q. these Wolfcamp oil wells in terms of ultimate 20 recovery?
- Your range can average anywhere from a 22 few thousand barrels -- 10,000 barrels, up to 250. 23 We've seen a couple wells that have exhibited about 250 recovery potential.
- 25 Have you done any reserve calculation Q.

specifically on the Kachina 8 Number 1 well? 1 2 We haven't done any projections. That's 3 why I stated earlier that we feel that this is going 4 to be a typical well until sufficient production 5 history is accumulated to tell us otherwise. And 6 we're not at that point yet, I don't believe. 7 Have you attempted to do any specific Q. 8 volumetric calculation with regards to the reserves 9 attributable to the Kachina 8 Number 1 well? 10 Α. Yes, I have. 11 Do you have that calculation before you? ο. 12 No, I don't. Α. 13 Q. Can you tell me what you used for your 14 porosity, this value in your volumetric calculation? 15 Our porosity value cutoff, I believe, Α. 16 was four percent. 17 Q. Four percent? 18 Α. Yes. 19 Q. And what did you use for your effective 20 water saturation? 21 Twenty-five percent. Α. 22 Q. And what did you use for your thickness 23 factor? 24 Thirty-one feet (indicating). Α. 25 Thirty-one feet is the perforated Q.

```
interval in the AG sand, I quess, or the AG
  carbonate in that well; is that right?
 3
          Α.
               No, that's our net number.
 4
          Q.
               That's your net clean?
 5
          Α.
               Net pay.
               Okay. Using only the net clean
 6
          ο.
 7
  carbonate out of that AG carbonate for your
  volumetrics?
          Α.
 9
               Correct.
               You did not roll in the net clean
10
          Ο.
11 carbonate thickness value for the AF or the AE zone?
12
               That's true. Because we don't know
          Α.
13 whether those are productive yet.
14
          Q.
               What did you use for a recovery factor?
15
               Let me see -- 25 percent.
               And the formation volume factor what
16
          Ο.
17 were you using?
18
               Between 1.4 and 1.5. 1.4 or .5.
          Α.
19
               And you use an area as a factor in the
          ο.
20 calculation as well; don't you?
21
               That's what you define.
          Α.
22
          Ο.
               Okay.
23
               You define the drainage area based on
          Α.
24 100,000 recovery, that's what you back out.
25 back out on an effective drainage area.
```

- And when you did that you backed out Q. 80 acres for that well?
- For that particular well, we're still Α. 4 under the assumption it's a typical well, and we're 5 looking at approximately 80 to 100 acres.
  - Do you attempt to perimeter the changes of thickness within a given drainage radius in the volumetric calculation?
- No, we haven't. And primarily from the Α. 10 fact of what Mr. Thoma stated earlier that the 11 thickness is not totally an identifying criteria for 12 reserves. It's not like a sandstone where you may 13 have a definite correlation. There is some random 14 distribution out here as far as thickness goes, 15 versus recovery.
  - So the calculation will assume a uniform Ο. thickness of 31 feet?
    - That's correct. Α.
- 19 Have you assigned a recoverable reserve 20 value to the 40-acre tract, being the northwest of the northwest of Section 8?
  - Α. Yes --
  - The Hanley tracts? Q.
- I did. 24 Α.

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And what number did you get? Q.

- Approximately 40,000 barrels, from the 1 Α. 2 Wolfcamp. 3 Q. Again that calculation is going to be influenced -- based upon Mr. Thoma's net clean 5 carbonate isopak? 6 Α. Yes. And the timeliness of drilling 7 that well. 8 Q. If it's not drilled soon what happens to 9 the oil reserves underneath that tract? 10 If there are oil reserves underneath Α. 11 that tract in the Wolfcamp, portions of it may be 12 drained. 13 Q. By the Kachina Number 8, the 8 Number 1 14 well; right? A. Or the 8 Number 2 well, if we drill on 15 16 our location. 17 Q. If --18 Α. You've got to keep in mind that if there 19 is no reservoir under that 40 acres there will be no 20 drainage occurring under that tract.
  - Q. I understand that's subject --
- 22 A. Okay.

21

Q. When we look at the south 40 using

Mr. Thoma's isopak of that AG carbonate, that's the

one with the 31 feet; right?

Yeah, AG. Α.

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- What did you calculate in the south 40 ο. 3 for the recoverable reserves, is that -- what number is that?
- I didn't utilize volumetrics. 6 utilized what we have experienced on this pattern 7 out here on diagonal 80s and that would be 100,000 8 barrels. We feel that if the 8 Number 1 and 9 8 Number 2 are drilled, the 8 Number 2 drilled at 10 our location, we feel that a typical well can be expected getting 80,000 barrels of oil -- or 100,000, excuse me.
- 0. Have you attempted to create an 14 extrapolation of pool decline to see how close this average hundred thousand barrels is in terms of actual production in the pool?
- 17 We haven't done it on a pool basis. 18 have on an individual well base.
- 19 ο. Can you tell me the individual wells 20 that you've made this estimate of recoverable 21 reserves on?
- Α. I don't have the curves with me to be 23 specific on well locations, but it's the predominant -- not the predominant, but the majority of the 25 wells within that south Corbin Wolfcamp there.

Whether operated by you or Meridian? 1 Q. 2 That's correct. Α. 3 MR. KELLAHIN: Thank you, Mr. Examiner. MR. BRUCE: I have a couple of follow-up 4 5 questions. 6 EXAMINATION 7 BY MR. BRUCE: 8 Referring to the well pattern in the Q. south Corbin field, the Kachina 5 Number 1 is a diagonal offset to the 8 Number 1; is it not? 10 Α. That's correct. 11 12 Q. And the proposed Kachina 8 Number 2 will also be a diagonal offset; is that correct? 14 Α. That's correct. Whereas, Hanley's well will be a direct 15 Q. 40-acre offset to the Kachina 8 Number 1; will it 17 not? That's correct. 18 Α. So there is -- so the Kachina 5 19 Q. 20 Number 1, if you draw a line through the 5 Number 1, 21 to the 8 Number 1, to the 8 Number 2, it will 22 conform to the diagonal spacing pattern; will it 23 not? That's established in the field; that's 24 Α. 25 correct.

The only difference is that the Q. 2 5 Number 1 well is somewhat unorthodox --3 Α. It is. 0. -- in its location? 4 5 And keeping in mind that also a development well could be proposed in the northeast of the southeast which would continue that diagonal pattern on further north. 8 9 MR. BRUCE: Thank you Mr. Examiner. You mentioned the 10 EXAMINER MORROW: 11 location in the northwest of the northeast of 17, and indicated that agreement had been reached to 13 move that to the east; is that correct? 14 That's correct, with Meridian. Α. 15 0. The location shown in the northwest of 16 the southeast, has any discussion been had on that location as to whether or not it should be moved to 17 18 the east, also? 19 I'm not -- what location was that? 20 It's in 17, it's the EXAMINER MORROW: 21 in the northwest of the southeast quarter, 22 directly south of the one that you discussed 23 earlier. I'm not familiar with that. 24 Α.

EXAMINER MORROW: Do you know who would

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be the -- well I'll ask you, who is the operator of
  that particular location.
2
              THE WITNESS: (No response.)
 3
              MR. STOVALL: If you don't know the
 4
5
  answer, please say so.
 6
              THE WITNESS:
                             I don't know definitely
  the answer. I suspect Meridian is the operator.
              EXAMINER MORROW: Does Santa Fe have an
 8
  interest in that location.
              THE WITNESS: No, we don't.
10
              EXAMINER MORROW: Did you have an
11
12 interest in the one to the north, in the northwest
13 of the northeast?
              THE WITNESS: The proposed location?
14
              EXAMINER MORROW: No, 117.
15
              THE WITNESS: Yes, the one that we had
16
   agreed to move to the northeast northeast.
17
18
              EXAMINER MORROW: All right. Where is
  the west Corbin Number 26, you talked about?
19
20
              THE WITNESS: Excuse me, it's in the
   northeast of the southwest of section --
   Section 8. It's got a well location several --
23
              EXAMINER MORROW: Northeast of the
24 southwest. That's all I have.
25
              MR. STOVALL: I just wanted to make sure
```

```
I understand that the -- you say you have done some
 1
  drainage calculations and estimates; is that
 2
   correct, in response to Mr. Kellahin?
 3
              THE WITNESS:
                            In this area, yes.
 4
   extensive.
 5
              MR. STOVALL:
                             Do you think the wells
 6
  based on those calculations do you have an
 7
 8 independent opinion beyond just the pool rules case
  that's been identified earlier about the drainage
   capacity, capability of those wells, drainage radius
10
   of those wells.
11
12
              THE WITNESS:
                             My independent assessment
   would be in support of what my findings have been
13
  with that case.
14
              MR. STOVALL: And what is that?
15
              THE WITNESS:
                             The fact that 80 acres is
16
   the estimated drainage, approximation for a typical
18 Wolfcamp well.
                             And based upon the --
              MR. STOVALL:
19
20 Mr. Thoma's geology and your evaluation, do you
  think that drilling in the Santa Fe proposed
21
   location and in the Kachina 8 Number 2 is --
                                                 will
22
   effectively drain -- that together with the
23
24 Kachina 8 Number 1 will effectively drain the
25 northwest quarter of Section 8?
```

```
THE WITNESS: I believe so.
 1
 2
              MR. STOVALL: What is your opinion with
 3 respect to having two nonstandard former operational
 4 units in the west half of the northwest quarter of
 5
  Section 8, speaking in terms of waste and
  correlative rights, how do you -- would you
  recommend that?
 8
              THE WITNESS:
                             Two 40-acre proration
 9 units for Wolfcamp?
10
              MR. STOVALL:
                             Correct.
11
              THE WITNESS: No, I wouldn't recommend
12 it.
13
              MR. STOVALL: Why not?
14
              THE WITNESS: Because of our drainage
15 that we have found in in area to prove that 80 acres
16 is the optimum pattern for development.
17
              MR. STOVALL:
                             I have no further
18 questions.
19
              MR. KELLAHIN: I have a follow-up
20 question to Mr. Stovall, if I might?
21
                        EXAMINATION
22
      MR. KELLAHIN:
  ВЧ
23
               Have you recommended to Santa Fe or
          Q.
24 Meridian that they file a case before the Division
25 to change the current pool rules so that you cannot
```

```
have wells in offsetting 40-acre tracts?
 2
          Α.
               No, we haven't.
 3
               The Kachina Number 8 Number 1 well --
          0.
 4
               The producing well?
          Α.
 5
               Yes, sir. It's 500 feet from the Hanley
          ο.
  lease; isn't it?
 6
               I believe that's the location.
 7
          Α.
 8
               Did you participate in making the
  decision about the location of that well?
10
               No, I did not.
          Α.
               Who made the decision about the
11
          0.
12 location?
13
          Α.
               It was between our Exploration and our
  Operations people.
               Is there an engineer that you can
15
16 identify that participated in that decision, if you
17
  didn't?
18
               No, I'm not that familiar with that
          Α.
19 specific point of the development of that well.
20
              MR. KELLAHIN:
                              Thank you.
              EXAMINER MORROW:
21
                                 Let's see, I had not
22 studied the rules as I should have. Tell me what
23 the minimum distance from a property line is in the
24 pool rules.
25
              MR. STOVALL: Mr. Examiner, I think I
```

```
did read through the rules, and the distance is 150
  feet -- within 150 feet of the center of the
3 quarter corner quarter section which is consistent
4 with recent special pool rules that the Division has
5 issued where drilling is on 40-acre tracts
6 essentially.
7
              EXAMINER MORROW: So would that put
  8 Number 1 at a standard location?
8
9
             MR. STOVALL: I believe that would be
10 right close to the center of that.
11
             MR. KELLAHIN: I'm sorry, the question
12 was the Kachina 8 Number 1?
             EXAMINER MORROW: Is it a standard
13
14 location, the Kachina 8 Number 1-- is it a standard
  location?
15
              MR. KELLAHIN: Yes, sir. It's on the
16
  far western edge of the possible circle for standard
18 well location.
19
             MR. BRUCE: Mr. Examiner, Hanley
20 Exhibit C, the completion reports, state that the
21 footage location is 660 feet from the north line and
22 1830 feet from the west line. So that would put it
23 at the outer bounds -- 510 feet from Hanley's lease
24 line.
25
             EXAMINER MORROW: You're telling me that
```

```
would be standard?
2
              MR. BRUCE: That would be a standard.
  That would be right on the edge of the circle.
4
              MR. STOVALL: One hundred fifty from the
  center is what it would be.
5
6
              EXAMINER MORROW: All right. Anything
  else of Mr. Offenberger?
8
              You may be excused.
9
              Call Mr. Roberts to the stand.
10
                       DARYL ROBERTS
11 was called as a witness and, having been previously
12 sworn, was examined and testified as follows:
13
                        EXAMINATION
14 BY MR. BRUCE:
15
         Q. Would you please state your name and
16 city of residence for the record?
               My name Daryl Roberts and I'm with
17
18 live in Midland, Texas.
               And who do you work for and in what
19
          Q.
  capacity?
20
21
             Santa Fe Energy Resources as a drilling
          Α.
22
  engineer.
              Have you previously testified before the
23
  OCD as a drilling engineer?
               Yes, I have.
25
         Α.
```

```
1
               And are you familiar with the matters
 2 involved in drilling in the Kachina 8, Number 1 well
  and the proposed Kachina 8 Number 2 well?
 4
               Yes, I am.
                           Mr. Examiner, I would tender
 5
              MR. BRUCE:
  Mr. Roberts as an expert drilling engineer.
 6
 7
              EXAMINER MORROW:
                                 Accept the
  qualifications.
 8
 9
               First, Mr. Roberts, referring to
10 Santa Fe Exhibit Number 4, did you prepare that
111
  exhibit?
               Yes, I did.
12
          Α.
13
          Q.
               And you are responsible once again for
14 the drilling of these catch wells for Santa Fe; is
15 that correct?
16
          Α.
               That's true. One of many.
17
               Would you please describe a little
  further your experience in drilling and estimating
  costs of Wolfcamp wells?
19
               Okay. Well, previous to Santa Fe I
20
          Α.
  worked for Meridian and also Southland Royalty.
22 went to work for Southland royalty in '81.
23 since 19 -- let's see, since '82, I've worked in
  that area, southeastern New Mexico.
```

25

And since 1986 I've drilled 27 wells in

```
these two townships, 1833 and 1832. I've drilled 27
 2 wells, 15 of those being Wolfcamp, with both --
  with either Meridian, Southland or Santa Fe.
 3
 4
               And when did you become employed by
          Q.
 5 Meridian?
               Meridian?
 6
          Α.
 7
          Q.
              Yes.
 8
          A. In '86.
 9
               And when did you you go to work for
          Q.
10
  Santa Fe?
11
          Α.
               A year ago.
               And those 27 wells you mentioned, that
12
          Q.
  was all under Meridian and Santa Fe; right?
14
               Right. Meridian -- Southland and
          Α.
15 Santa Fe.
16
               In this particular area how many wells
          Q.
17
        and you're talking Townships 1832 and 1833 --
18
   how many wells does Santa Fe operate?
19
          Α.
               Sixteen.
20
               And how many does it have an interest
          Q.
21
   in?
22
               Thirty-five.
          Α.
23
          Q.
               Now Hanley Petroleum sent over an AFE,
  proposed AFE, to Santa Fe for its well; did it not?
               It did.
25
          Α.
```

- Q. And have you compared Santa Fe's AFE to Hanley's AFE?
  - Yes, I have. Α.

1

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3

4

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23

- And is that submitted as prepared in Ο. spreadsheet form and submitted as Exhibit Number 9?
  - Yes, that's true.
- Would you go through Exhibit Number 9, and compare the dry hole and producing costs and itemize where Santa Fe's and Hanley's well costs vary and the reasons for that variance?
- Α. Okay. Well first off, I'd like to explain, to make the comparison equitable, if you'll notice the -- under the Santa Fe's producers' cumulative total cost, is \$35,000 higher than the cost that was submitted to Hanley which is 16 Exhibit 4.
  - Ο. What is the reason for that?
  - The reason for that, when I prepared the Α. cost estimate for the Kachina 8 Number 2, it was my assumption they would be using the same tank battery as we have on the 8 Number 1. So, but -- just to make it fair, because Santa Fe -- because Hanley's cost estimate includes the tank battery, I include the tank battery in this particular comparison.
    - So, in short, Exhibit 9 includes the 0.

tank battery, whereas Exhibit 4 did not? 1 2 Α. That's right. 3 For Santa Fe? 4 Α. That's true. But it's to allow us to be comparing apples and apples. So if you'll look 5 6 at this exhibit, I can go through line by line, if you like, or --7 Well, first compare the dry hole costs. 8 9 The dry hole costs in my mind, or Hanley's dry hole costs is \$438,000 versus our costs of \$453,000, which are essentially the same. 11 12 Q. So you view that as insignificant? 13 Right. And then as far as Hanley's Α. producing costs, there's a \$667,000. 15 Q. For Hanley? 16 Α. For Hanley. And ours is \$657 --\$757,000. 17 And would you, maybe not line-by-line, 18 Q. 19 but I believe there are some numbers highlighted in 20 orange on the exhibits? 21 Α. Okay. These are the ones in orange on 22 the far right-hand corner -- are items that I think

- A. Okay. These are the ones in orange on
  the far right-hand corner -- are items that I think
  are essential to the drilling of the well that were
  not addressed in Hanley's cost estimate.
  - Q. And what are those?

- The conductor casing which would be Α. conductor casing or using a rat hole machine.
  - And that's that \$3,000? ο.

1

2

3

4

5

8

9

11

15

17

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19

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21

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24

25

\$3,000. Under the lease facility Α. costs, there's \$15,000 for labor, which would include painting, welders, roustabout crews to install the paint battery or lease facilities, \$15,000.

Under the intangible well costs, there's 10 fencing, which is \$4200, that we've included that they did not which includes fencing off the reserve pit after the rig is released, and then also fencing off the tank battery after the tank battery is 14 installed.

The next item is inspection of tangibles, 16 which would be inspection of the casing prior to -on location prior to running in the hole which is \$5,000. Drilling equipment rentals are -- which is various rentals that we use on a drilling location to drill the well.

Same thing with the completion tool rental, is \$4,000. There's miscellaneous completion items that have to be rented from service companies in order to be able to complete the well.

Then the next item is \$9200 for

1 administration overhead, which is always charged. 2 And testing of the well is \$5,000, which I think everybody agrees you have to test the well after 3 4 you're through.

All that adds up to around \$48,000 that I view was not included in their cost estimate, they're producing cost estimate versus ours.

> 0. Okay.

5

6

8

9

16

17

- So in their frame --
- 10 0. Now this would still leave you a little bit higher than Hanley's proposed costs, would it not? 12
- 13 Α. That's true.
- Now, in making up your estimates, does 14 Santa Fe tend to be liberal on the cost sides?
- Yes, our costs are usually on the high Α. We use the book price, just to allow our partners and also our management staff not to have to supplement the AFE after a well because, you know, it's not an exacts science. But there again, I was bringing up the fact that whatever our costs are, that's what gets charged to us and to our 23 partners.
- 24 ο. In other words, Santa Fe by using these 25 higher costs would kind of form an outside limit of

the proposed well costs? That's correct, it would be a high side 2 3 estimate. 4 Could you compare Santa Fe's proposed ο. 5 costs for the 8 Number 1 with any offsetting well 6 costs? 7 Yes, I have -- we're partners in the Α. 8 west Corbin 26 well which is in Section 8, the direct offset. That's the northeast quarter of the 10 Ο. 11 southwest quarter of Section 8? 12 Α. Right. What is the proposed well cost there by 13 Q. 14 Meridian? 15 Α. It's \$743,000. 16 Q. And are there any other proposed -current proposed wells? Yes there's a well that's being --18 Α. 19 been drilled in Section 7 which would be directly to 20 the east, to the west of our -- of this Section 8. And it was \$742,000 for a complete well cost. 22 Q. And what well was that?

O. Okay. So Santa Fe's propos

2.3

Q. Okay. So Santa Fe's proposed well cost bere on Exhibit Number 9, is in line with Meridian's

The West Corbin Number 25.

costs; is it not? 2 Α. That's true. And Meridian is the primary operator in 3 Q. this pool; is it not? 4 5 Α. Right. Could you compare Santa Fe's proposed 6 costs for the 8 Number 1 well, the one that's 8 already completed, with the actual costs? 9 Our actual costs are \$705,000, tank Α. 10 battery and everything installed. And what was Santa Fe's AFE for that 11 Q. 12 well? 13 Α. I don't have that -- for that well, but 14 for our -- as you can see here -- the Kachina 5 Number 1 was \$756,000, which is \$51,000 difference 16 or 6.8 percent. 17 And you would hope and have every Q. expectation of coming in with a cost, hopefully 18 substantially less than this \$757,000 cost for the 19 8 Number 2 well? 20 21 Α. Right. A couple of final items, Mr. Roberts. 22 23 Santa Fe has already drilled the 8 Number 1 well and

```
additional Wolfcamp wells in the north half of
 2
  Section 8 during 1991?
               In the north half of Section 8? Yes, I
 3
          Α.
  quess so. North half of Section 8?
 4
             On our current -- on this lease, on
 6 this particular lease?
 7
               Well, yes, we had -- I think there's a
  space for one more well.
 8
               Might Mr. Thoma be a little more
9
  familiar with that?
10
11
          A. Yeah, I mainly just take them and drill
12
  them.
              Can I add something?
13
              Sure.
14
          ο.
              Back again to the cost estimates.
15
16 know, we were talking that -- see in my opinion that
17 our drilling and completion costs are about the
18 same, and the biggest difference that I can see is
19 you can see on this, is the $28,000 on facilities.
20 And I think if you will notice our Exhibit
21 Number 10, is an award from the BLM, it's an
22 environmental initiative award which commended
23 Santa Fe on its surface facilities and way of doing
24 things.
              And so I think that the significance of
25
```

```
that is it's another governmental agency that thinks
 2 that Santa Fe has done well in operating their
 3 leases. And that I think relates to the tank
 4 batteries and our signs and the way we conform to
 5 the -- and adhere to the regulations.
 6
               Thank you. Mr. Roberts, was Exhibit
          Q.
  Number 9 prepared by you?
 8
               Yes, it was.
          Α.
 9
               And was Exhibit 10 compiled from company
10 records?
11
              Yes, it was.
          Α.
               In your opinion will the granting of
12
13 Santa Fe's application be in the interests of
14 conservation, the prevention of waste --
15
          Α.
              Yes.
16
          Q.
              -- and the protection of correlative
17
  rights?
18
              Yes, I do.
19
              MR. BRUCE: Mr. Examiner, I move the
  admission of Exhibits 9 and 10.
21
              EXAMINER MORROW: Exhibits 9 and 10 are
22
  admitted
23
                         (Santa Fe Exhibits 9 and 10
24
                           admitted in evidence.)
25
              MR. CARR: No questions.
```

## EXAMINATION 1 2 BY MR. KELLAHIN: 3 Mr. Roberts, refresh my recollection, 4 you referred to the West Corbin 5 well? 5 Α. Yes. Please find it for me, or tell me where 6 ο. it is so I can find it on one of the maps? All I know is it's in Section 7. 8 Α. 9 Q. Okay. Do you know when that well was 10 spudded? I can look it up. I've got the drilling 11 reports from Meridian. 13 Q. Would you mind doing that for me, 14 please? Okay. January 26, 1991. 15 Α. 1/26/91? 16 Ο. 17 Α. Yes. Spud date. What's the completion date? 18 ο. I think it's still completing. 19 Α. Okay. They're on location completing 20 Q. 21 now? 22 Α. As far as I know. I have a report here 23 on February the 28th. Okay. Do you have the actual costs, 24 Q. 25 current through now on that well?

```
I have their cost.
                                    That's carried on
 1
  their -- that have been reported to us.
 2
               They report costs to you on a -- what
 3
          Q.
  type of basis? How often do they report costs?
 5
               On a daily basis.
               On a daily basis you get costs reports
 6
          Q.
  on how they're spending the money on the well?
 8
          Α.
               Right.
 9
               And the total costs on that well at this
10 point is what now?
               On that particular base, it was $600,00.
11
          Α.
               How long does it typically take from
12
  spudding to completion for these Corbin Wolfcamp
13
14 wells?
               I don't have any idea. I can tell you
15
  how long they take to drill.
               All right. The Kachina 8 Number 1 well
17
          Q.
18 was spudded on September 29, 1990? Do you have that
  information?
19
20
          Α.
               I do. Yes, September 29th.
21
          Q.
               The rig was released on October 30,
22
  1990?
               That's true.
23
          Α.
                                        V:3
               When was the completion date put on the
24
25 location to compete the well?
```

I don't have any -- that information. 1 Α. 2 Do you know when the Kachina 8 Number 1 0. well was completed? 3 4 No, I don't. Α. The total actual cost on that well are 5 ο. \$705,000, completed well costs? 6 7 \$705,437 is what I have. Do you do like Meridian and report to 8 your operators on a daily -- or your working 10 interest owners on a daily basis the current costs 11 of those wells as you do them? 12 Yes, sir. Α. 13 Are you aware that there is a royalty Q. 14 difference between the Hanley lease and the lease to 15 the south in that spacing unit? No, not a royalty -- You mean a working 16 Α. 17 interest? 18 A royalty difference in percentage? 0. 19 Α. No, I'm not. 20 Would that necessitate putting on a tank Q. battery for that well that's different than the Kachina 8 Number 1 well? 22 23 More than likely, yes. Α. 24 MR. KELLAHIN: Thank you. 25 EXAMINER MORROW: If you allocated costs

```
to the Bone Springs, what percent of the cost would
2 be allocated to the Bone Springs location?
              THE WITNESS: I worked up a cost
3
  estimate for a Bone Spring well only, to 9900 feet
5 and the cost was $616,000 completed costs.
              EXAMINER MORROW:
6
                                 $616,000?
 7
              THE WITNESS: Yes, sir.
8
              EXAMINER MORROW:
                                 And occasional
  would be the difference between that $616,000 and --
10
              THE WITNESS: And $750,000.
              EXAMINER MORROW: Looking at Section 8,
11
12 it looks like there was room for two more wells in
  that northeast quarter, possibly -- or is that
14 correct?
              THE WITNESS: Well, does that include
15
16 the 8 Number 2?
             MR. BRUCE: Northeast corner.
17
              EXAMINER MORROW: Let me see.
18
              THE WITNESS: Let me see if I have a
19
20 map.
21
             MR. STOVALL: Use the one on the wall,
22 Exhibit 3, if you need to.
              THE WITNESS: The northeast corner?
23
24
                                 Northeast quarter of
              EXAMINER MORROW:
25 Section 8 would apparently have two more spots at
```

```
1
  least.
 2
              THE WITNESS: Right, yeah, I agree.
 3
              EXAMINER MORROW: I believe you said one
 4 had already been talked about in your company; is
 5 that right.
 6
              THE WITNESS: Yes. We're really talking
 7 about the northwest, the north.
 8
              EXAMINER MORROW: Maybe I misunderstood,
 9| but --
10
              MR. BRUCE: The northeast quarter, yes,
11 Mr. Examiner, I was asking about the northeast
12 quarter. I think Mr. Roberts was unclear on that.
13
              THE WITNESS: That's evident.
14
              EXAMINER MORROW: Okay. So that answers
15 that.
16
             That's all I have.
17
              MR. STOVALL: I think we've done enough
18 damage so far.
19
              EXAMINER MORROW: All right, the witness
20 may be excused.
21
              MR. STOVALL: This would be a good time
22 to break for lunch.
23
              EXAMINER MORROW: About 45 minutes?
24
              Mr. Bruce, do you have anything else at
25 this time.
```

```
1
                           I'll rest at this time
              MR. BRUCE:
 2
  unless I have some rebuttal for Mr. Kellahin.
                                                  But
  that's my witnesses, Mr. Examiner.
 4
              EXAMINER MORROW: We're thinking about
 5
  breaking for lunch. Does anybody have any airplane
  commitments or anything else?
 7
              (Laughter.)
 8
              MR. STOVALL:
                            What time do your planes
  leave tomorrow, that's what we're concerned about?
10
              Mr. Kellahin, have you got about the same
111
  amount of time this afternoon as we spent this
12
  morning? Recognizing that Mr. Bruce may have a
  question or two for some of your witnesses.
14
              MR. KELLAHIN: Perhaps two and a half
15 hours.
16
              EXAMINER MORROW: We will break until
17 1:00.
18
              (The hearing was recessed from 11:45 a.m.
19 until 1:00 p.m.).
20
21
              EXAMINER MORROW: Now, we're ready to
              Hanley 5
  start with Henry's presentation.
2.3
              MR. KELLAHIN: Thank you, Mr. Examiner.
24 I'd like to call at this time Mr. Brett Bracken.
25
```

1 BRETT BRACKEN, was called as a witness and, having been previously 3 sworn, was examined and testified as follows: EXAMINATION 4 5 BY MR. KELLAHIN: 6 Mr. Bracken, for the record, would you ο. 7 please state your name and occupation? 8 Brett Bracken, geologist. 9 0. Would you summarize for us your 10 educational background as a geologist? 11 Α. I graduated from the University of Texas at Arlington, 1980, with a BS Degree in Geology. 13 Q. Subsequent to graduation, summarize your 14 professional employment as a petroleum geologist? 15 I, immediately upon graduating, went to 16 work for Texaco as a geologist. I worked there for 17 three and a half years. And then I went to work for 18 Hanley Petroleum, and I've been there for a little over seven years. So I've been a petroleum 20 geologist a little less than eleven years. 21 As part of your geologic duties, do you look for and develop prospects in the Wolfcamp 23 formation in Lea County, New Mexico? Yes, I do. 24 Α. 25 And as part of those duties, have you Q.

made a study of the geology that is applicable to today's hearing?

> Α. Yes, I have.

2

3

4

5

6

7

11

15

19

24

MR. KELLAHIN: We tender Mr. Bracken as an expert petroleum geologist.

EXAMINER MORROW: We accept his qualifications.

- 0. Summarize for us the type of geologic interpretations that you have made that will apply 10 to this case?
- Α. Okay. The conclusions, or some 12 conclusions that I've come to, is that structure 13 plays an important integral role in Wolfcamp 14 production in the Corbin South Field. The field is highly irregular and variable in nature. Carbonate 16 debris is not consistent from well to well -- it's presence or absence is not consistent from well to 18 well.

Porosity is not consistent from well to 20 well. And, also, there's an occurrence of water 21 production in the wells and that is not consistent 22 from well to well. And, finally, the effective 23 development of the field has been on 40 acres.

Let's look at the aspect of your 25 conclusion dealing with structure. And when you

```
apply those conclusions specifically to the west
  half of the northwest quarter of 8 --
 2
 3
          Α.
               Yes.
 4
          Q. -- and you as a geologist are trying to
 5
  determine the optimum location --
 6
              Uh-huh.
          Α.
          Q. -- for a well to penetrate and test the
 7
  Wolfcamp carbonate --
 9
              Uh-huh.
10
          Q. -- And you have a choice between the
11 north 40 and the south 40 --
12
          Α.
              Uh-huh.
          Q. -- How does structure help you make that
13
14 choice?
               It's structure-- the well in the north
15
          Α.
  40 is going to be higher to the south 40, and
  possibly higher to the Kachina 8 Federal --
18 structurally higher.
               What is the significance of being
19
          Q.
20 structurally higher to the south 40, if you have a
21 well in the north 40?
22
          Α.
               Reduces the risk of water production.
23
               How have you determined the deposition
24 of the carbonates in the Wolfcamp as they are mapped
25 in Section 8?
```

- The -- to the north is the Permal Pan 2 reef front. It has an east-west regional trend. And the dip from this -- out front of this Permal Pan 4 trend is steep and to the south. Again, the 5 structural strike is more or less east and west. 6 Any debris --
  - 0. How confident are you that you have properly mapped the orientation of the structure in the Wolfcamp?
    - I've very confident of it. Α.

7

10

11

15

20

23

- Describe in a regional way what you draw Q. from as a geologist to satisfy yourself that the 13 orientation -- or the axis of the structure is 14 correct in your interpretation?
  - Well, among well control, personal identification of the correlation points on the well control, the structure is modeled after shallower horizons. For instance, the Abo reef trend to the north, it has the same strike in the beds over that and out in front of it, shallower beds. They all exhibit this down-to-the-south structural dip, as well as a more or less east-west trend.

You can see this dip and this trend all 24 the way up to the Yates, if not at the surface on a 25 topographic map.

- Having satisfied yoruself about the reliability of your mapping of the structure, then 3 how do you apply the structural orientation to the 4 orientation of the deposition of the Wolfcamp?
- Well, if you've got this reef up to the 6 north, and you've got east-west dip -- I mean east-west structural strike, and south dip, the only logical thing to do-- or logical conclusion you can come to, is that any debris that's going to come off 10 of this reef front is going to roll down it like a 11 cannon ball. And -- which is perpendicular to the 12 reef front.

And that's -- thus, the orientation of my 14 isopak up there.

- When you make the choice as a geologist Q. of how to select the intervals for mapping in the Wolfcamp to prepare your isopak ---
  - Α. Uh-huh.

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- -- what decisions did you have to make and what, in fact, did you make?
- Well, after careful examination of numerous well logs in the area, I came to the 23 conclusion that it was quite difficult to correlate 24 individual zones, well to well, due to the nature of 25 the beast. We're dealing with a carbonate debris

that had tumbled down and in pulses -- there's blocks, rubble. And it's all intermingled, convoluted.

Some of these pods, when they come down, are going to probably cut into pods that are already deposited. So it's just a jumbled up mess of rock.

- In order to map the ispak of this carbonate then, what do you choose for the interval that is mapped on your isopak?
- I chose to map the net clean lower Wolfcamp line within the top of the lower Wolfcamp and the base of the lower Wolfcamp. I summarized all the -- totaled the clean line within that 14 interval and massed it together.
- Having come to a structural conclusion 16 that the north 40 and the spacing unit has a structural advantage --
  - Α. Uh-huh.

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- --in examining the isopak and the relationship of the north 40 to the south 40, what conclusion did you reach as a geologist?
- Well, the north 40 is going to have just Α. as much rock as a well in the south 40, if not more.
- 24 Let me hav eyou go to what is marked as 25 Hanley Exhibit Number 1, a copy of which we put on

And have you take us through the key the wall. components of that Exhibit Number 1 and support for 3 us the factual evidence that causes you to reach your conclusion about the structural advantage in the north 40, and the thickness of the net clean carbonate in the Wolfcamp, and it's advantage in the north 40 versus the south 40.

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Okay. First of all, in the -- it's a Α. montage and pretty much the same format as 10 Mr. Thoma's exhibit. In the north-- the upper right-hand corner, I have a structure map on the base of the lower Wolfcamp, and it shows -- the contour interval is 50 feet, scale is zero to 2,000. I have the proposed proration of working interest 15 unit shown and the location shown.

It also shows the line of cross-section, A to A prime. The thing that stands out on this map is that, again, the steep north to south structural dip which has an east -- more or less east-west And this sets up the deposition of the total line -- or total net clean line, which I have isopaked in this map here, which is in the lower right corner of the map, basically.

Again, it's the same scale, 50 feet 25 contra interval. And the thing I want to point out

```
is this north-south trend, or axis, of the deposit
  and our acreage is placed in the -- pretty much in
 3 the center of this trend. It's in the optimum, best
  position within the thick.
              And going back to the structure map,
 5
  again, our location -- I'm showing it to be between
 6
  25 and 35 feet high to a location in the south which
  is working interest only.
 9
               In looking at your 40 in the north part
          Q.
10 of the spacing unit --
11
          Α.
              Yes, sir.
            -- On the structural map, what is it's
12
          ο.
  projected structural position in relation to the
14 Kachina Number 1 well to the east?
               It is also high to the Kachina well to
15
              Do you want to know how high?
16 the east.
17
          Q.
              Approximately.
              About 20 feet.
18
          Α.
               When we look at your isopak
19
          Q.
              Uh-huh.
20
          Α.
              -- And compare it to the orientation that
21
          Q.
  Mr. Thoma has for the depositional trend of the
  various members of the Wolfcamp carbonate --
              Uh-huh.
24
          Α.
          Q. -- There's a substantial difference;
25
```

isn't there? 2 Yes, sir, there is. How come you believe you're right? 3 ο. 4 Well, like I said, the structure is a key ingredient in the orientation. It's not logical 5 6 to assume that these pods would be at an oblique angle to the force of gravity. I mean gravity is going to play an important role in how these things were deposited. 10 And that's my reason for making the orientation as such. It's going to be perpendicular 11 to this dip -- structural dip. In coming to the conclusion that the 13 deposition of the Wolfcamp is perpendicular to the 15 axis of the structure--Uh-huh. 16 Α. Q. -- have you honored all available 17 18 geologic data? Yes, I have. 19 Α. 20 Is your interpretation inconsistent with Q. any of the data that you've demonstrated on your 22 display? 23 No, sir.

Q. So you didn't have to ignore any log information or other geologic data in order to

make-- come up with this conclusion?

- Α. No, I made the simplest, most logical conclusion you could come to.
- All right, sir. Before we leave Exhibit Number 1, point out the structural dip for us on 6 your Exhibit Number 1?
  - Well, I --Α.

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- It's on the cross-section.
- Yeah, I never got to explain the Α. 10 cross-section here. This is a north-to-south 11 structural cross-section, north being on the left. 12 And, by the way, the Number 1 well on this 13 cross-section is Santa Fe's Number 1 Kachina 8 14 Federal.

As you can see, I have colored some of my 16 correlation marks and from the base of this lower 17 Wolfcamp on up to the last correlation that I have, 18 it's all horizons exhibits an obvious north-to-south 19 structural dip.

Sub C datum on this cross-section is the 21 marked at 6500 feet below sea level. In a scale -- a vertical scale, that's one inch to 100 feet. It has 23 no horizontal scale.

24 Let's go to your next montage, 25 Mr. Bracken. All right, sir, would you identify and describe for us Hanley Exhibit Number 2?

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Α. Yes, sir. It's the same format as the previous exhibit, incorporating the same structure 4 map, same isopak map. The only difference is it 5 incorporates a west-to-east cross-section, B to 6 B prime, which is shown, the line of section is shown on both maps.

In these scales and datum on this 9 cross-section are identical to that -- to that 10 cross-section over there (indicating). Sub C datum 11 and mines 6500 feet, and horizontal scale of -- no 12 scale horizontal or vertical scale one inch to one 13 hundred feet.

- 14 Q. Describe for us your conclusions about 15 the display?
  - Again, these maps here are the same. won't go into them.

But, what it shows is that this isopak interval here that I have summed up the total line, clean line, exhibits a -- somewhat of a little more structure. It's not really structure, but over this pile of rock -- and I think that's due to this pile of rock that has been -- this accumulation of rock 24 that has been dumped out in this interval.

One thing to note is that the -- their

zone is producing in the Kachina 8 Federal, the bottom here, and back up, producing perforations are indicated by solid black bars on the center well column.

There is nothing to the west to indicate that that zone would not be present in this well.

- Q. This well being the first numbered well on the B, B prime cross-section--
- 9 A. Yes, sir, it would be in Quadrant-10 looks like Quadrant C of 7.

5

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- Q. And you have available logs on that
  well, but it stops -- the well bore stops just short
  of the lower Wolfcamp that Mr. Thoma has identified
  as the AG?
- A. Looks like it stopped TDs about

  16 somewhere in the middle of what he would call the-
  17 I quess the AF, whatever.
- Q. What have you used on your isopak then to define the area of greatest thickness in the carbonate as you come through the western half of Section 8?
- A. I have used the blue shading that I have indicated on the log. Or, in other words, I have summed up those thicknesses.
  - Q. In order to have an effective tool to

find oil in the Wolfcamp, what do you do as a geologist in mapping the isopak of the carbonate?

- Well, we were trying to locate the Α. locations where there would be the greatest amount of rock, favorable structural position.
- ο. Could you, as a geologist, utilize Mr. Thoma's isopak on the AG producer which is in the upper right portion of his display, Exhibit Number 7, for example, would you as a geologist use 10 that with confidence to help you find the best location for oil production in the Wolfcamp?
  - Α. No, I would not.
  - Why not? Q.

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Well, I don't like his orientation. 14 Α. Excuse me, I'm not trying to cut anybody down. 15

But, first of all, his orientation is-goes against logic. There's no basis for the skewed 18 northeast-southwest trend. As a matter of fact, I could contour these -- his numbers, in a north-south direction, easily.

He has no -- the other problem is that -take each well on a -- each map on an individual basis, there's a majority of wells that penetrate the Wolfcamp which do not produce out of that --25 whatever interval he's trying to isopa .

In fact, the majority of the wells would 2 be nonproducers or dry holes for each one of his intervals. So it's misleading. It would lead you to believe you could package, or map all of these 5 zones into nice correlatable packages, when it's 6 entirely the opposite.

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Q. Let me have you return to your seat if you're finished with Exhibit Number 2.

And let me have you at this point identify and describe what we will mark as Hanley 11 Exhibit Number 3.

Identify that display for me, please?

- It is a structure map on top of the-what I call the second Bone Spring carbonate Payne This is a personal nomenclature for that Zone B. zone.
- All right. Why did you want to prepare Q. 18 a structure map using the second Bone Springs Carbonate pay? 19
- Well, first of all, it's a good correlatable marker on the logs. And it also demonstrates the obvious structural strike -- or 23 structural structure in the area, and that is the 24 east-west structural strike and the steep dip to the 25 south. This is consistent with the Permal Penqand

Abo reef fronts to the north.

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- How is this structure map different than Q. the one you displayed on either Exhibit 1 or 2?
- It's not too different at all. It's Α. showing the sme structural relationship. It just may be a little more dip. Basically the same, though.
- So it's clear, what's your structural Q. control for -- what point in the reservoir are you 10 mapping on the structures shown on Exhibits 1 and 2 11 and how does that differ from Exhibit -- did I say 12 Exhibit 4? I think it's Exhibit 3. I'm sorry, Exhibit 3. How are these different? Are you mapping on the same interval?
  - Α. I'm sorry, I didn't -- misunder--
- 16 Ο. When you look at the structure maps, you've got a structure map shown on Exhibits 1 and 18 2?
- 19 Α. Yes.
- What are you mapping? What portion of 20 Q. the structure are you mapping?
  - Α. It's the base of the lower Wolfcamp.
- Okay. When we look at Exhibit 3, what 23 0. 24 are you mapping?
- 25 Zone -- approximately a top of a zone Α.

approximately, oh, 3,000 feet higher on the top of the Zone B Bone Spring carbonate.

- Q. When we look at the top of the Bone Spring carbonate for a structural marker, is that shown on either Exhibits 1 or 2?
  - Α. No.
- All right. We're far above that 0. interval?
  - Α. Yes.

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- Q. Why is it important to you as a geologist to have mapped the structure on the Bone Springs and compared its relationship to the 12 13 Wolfcamp structure?
- It just -- it adds more emphasis to the It verifies it, in that a structural--15 Wolfcamp. 16 our structural position in our proposed location is going to be higher than their proposed location at all horizons.
- So in the north 40 of the spacing unit, 19 regardless of the formation penetrated, you will 20 have a structural advantage in the north 40 over the south 40? 22
- 23 Α. That is correct.
- Will this hold true not only for the 24 ο. 25 Wolfcamp, but the Bone Springs and any other

potential oil formation?

Α. Yes.

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- What are the other oil formations that Ο. 4 are likely targets for a well to be drilled in the 5 north 40?
- Well, not only their AG zone, but I agree with Thoma that the -- whatever they call the 8 AF and the AE-- or whatever they are called, they'll 9 probably be productive. Bone Springs sands, Bone 10 Spring carbonates, Delaware sands, Queen/Grayburg.
- 11 Let me direct your attention now to what 0. is Exhibit 4. This is your production map. want to talk about it? 13
  - If you want me to. Α.
- Did you also participate in the Q. 16 preparation of this production identification map?
  - Yes, I did. Α.
- Identify and describe it for us. 18 o.
- Okay. It is a production map of the Α. Corbin area. The scale is zero to one inch is 2,000 20 It is a map that shows all producing wells in feet. the area and what zones they produce out of. instance, the -- I quess it's purple, would be the Queen/Grayburg at, say, 4,000 feet. Delaware is in 25 the -- Delaware production is kind of hard to see,

but it's kind of a more orange color. And that produces at about 5,000 feet.

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Bone Spring is a darker red color and it produces from the -- like I said, from the dolomite and sand between, say, 8400 to 9400. Wolfcamp is 6 shown in yellow, and then there is some Wolfcamp shown in yellow and it produces at around 10,700 to 11,500. And then there is some production from the Straw and the Morrow it's deeper -- much deeper.

10 It also shows the proposed location of 11 the interest unit.

Oh -- I'll wait. Maybe you want to ask 13 me something else.

- From any of your displays, do you agree 15 with Mr. Thoma that a well drilled in the south 40 16 for Bone Springs production is going to be too low in the structure and, therefore, wet?
  - Α. Yeah, I agree with him.
  - Q. When we look at the Wolfcamp, can you specifically identify wells for us on any of your displays that have encountered the water problem with their Wolfcamp oil production?
    - Α. You bet.
    - Ο. Please do that for me.
    - Okay. I'll do it on the north-south Α.

cross-section, or exhibit -- I guess it's Exhibit 1. The Number 2 well on the cross-section didn't even test the AG zone according to the Santa Fe's 3 nomenclature.

This second zone which looks like that --6 we assume that it could coorelate to the second zone on the Number 2 well trace at about 11,160 to 7250, 8 thereabouts. Appears to correlate to their zone here, which they call the AF. They perforated this interval and recovered swab 20 barrels of oil, and 50 barrels of formation water. Eventually moved up 12 the hole to an entire interval.

Also, in their AG zone, the third well on the cross-section, which would be this location here, they perforated that zone, which is the zone 16 that their well -- the Santa Fe well, produced out of -- and they swabbed 8 barrels of water with a trace of oil and they eventually squeezed the perfs. So in that respect, you'd think that water is definitely a problem.

> Okay. 0.

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- Anything else? Α.
- No, sir. Q.

24 The Examiner must make a judgment on the 25| appropriate risk factor penalty to apply in either

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case, Mr. Bracken. Mr. Thoma has recommended to the
2 Examiner that if he approved a well in the south 40
  that it justifies the maximum risk factor penalty of
 31
  200 percent.
 4
 5
               Uh-huh.
          Α.
               Do you agree or disagree with Mr. Thoma
 6
  with regards to a well in the south 40-acre tract?
 7
 8
               With that penalty, yes, it's riskier.
  It's a riskier location.
 9
10
               If you're recommending to the Examiner a
  risk factor penalty for a well to be drilled in the
  north 40 --
12
13
          Α.
             Uh-huh.
14
             -- what is your recommendation to him
15 based upon the geologic risk involved for a well at
16 that location?
               Well, in our opinion, it is less risky,
17
          Α.
18 and we would be willing to assign a penalty of
19
  150 percent instead of 200 percent.
20
              MR. KELLAHIN: That concludes my
```

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(Hanley Exhibits 1 through 4
 1
 2
                            admitted into evidence.)
                         EXAMINATION
 3
  BY MR. BRUCE:
 4
               Mr. Bracken, do you disagree with
 5
  Mr. Thoma's breaking up the Wolfcamp into five
 6
  separate pays?
 7
 8
               I agree only in the sense that there are
9
  separate pays.
                  But I don't think you can map them
  like he's done it. I think that would be an
10
  exercise in -- you know, you're just kidding
11
  yourself if you think you can correlate that stuff.
13
          Q.
               Okay.
14
          Α.
               There are separate pays, yes --
               Would you?
15
          0.
              -- I would agree with that.
16
          Α.
               Would you also agree that some of those
17
          Q.
18 pays may be productive, while others are not?
19
          Α.
               Yes.
20
               Now, you mapped it, as I understand it
          Q.
  total -- totalled all those pays to make your
22
  isopak?
23
               Yes, sir.
          Α.
               Will that reflect individual
24
          Q.
25 depositional environments for the separate pays?
```

- I believe so. They're all going to --Α. well, I'll just leave it at that.
- Now, looking at -- I'll pick out your Exhibit 2 here.
  - Uh-huh. Α.

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- I believe you testified that your drawing the isopak perpendicular to the structure --
  - Perpendicular to strike. Α.
- Well, isn't -- if that's the case, 0. 10 shouldn't your orientation be from the northwest to 11 the southeast?
- Α. Well, I think you're splitting hairs, if 13 you're going to go into that. I see -- that map is 14 a small portion of a larger regional map that I've 15 done and it's clearly east-west direction and on --16 another thing is that there has been some tilting 17 that has taken place, I believe during the Tertiary 18 time, that is going to -- I'm trying to think of a 19 word.

## EXAMINER MORROW: Change?

- Yes, change the original structure at Α. the time of deposition.
- 23 Q. I've also made a note that you said this pool was effectively developed on 40 acres?
  - Yes, sir. Α.

- Q. Could you explain that?
- A. Sure can. I'll show you on here. Who do you want me to show it to?
- Q. We need to find a display that -- you need to find a display that everybody can recognize.
- A. I think we've already gone into it on previous testimony, but, Mr. Examiner, if I could draw your attention to the, say, west half of Section 17, and the east half of Section 18, there's a cluster of three wells in there that all produce -- they're all direct offsets to each other.

You can go over to Section 16 to the east and in the southwest quarter of that section, again you see three wells that are more or less -- well, not more or less, they are effectively 40 acre spacing in relation to each other.

- Q. Let's look at Section 17.
- 18 A. Okay.

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- Q. In the west half of Section 17, and then
  the west half of the east half of Section 17, that's
  about 480 acres. How many wells are in there?
  - A. Say that again? I didn't follow you.
- Q. Excluding the east half of the east half
  of Section 17 --
  - A. Uh-huh.

--how many wells are producing from the 1 0. Wolfcamp? 2 Looks like there's six wells. 3 Α. Could you divide 480 by 6 for me? 4 Ο. Α. Eight, I believe. 5 I believe that's 80? 6 0. 7 Eighty? Yeah, 80. Α. So in other words, there's one well 8 Q. every 80 acres in Section 17; isn't there? 10 Right. Legally there's one well for 80 acres. But effectively there's -- in some intances, 11 there's physically one well for 40 acres. 12 13 In the area of interest, I do recognize ο. 14 that looking at Section 18 there is a 40-acre direct 15 offset; isn't there? 16 Α. Uh-huh. But really, if you look at Sections 8, 17 18 17, and 18 -- and 7, that's really the only instance of a 40-acre offset; isn't it? A direct 40-acre 20 offset? Well, like I said, over in the southwest 21 Α. 22 quarter of Section 16, that -- I can draw your attention again down to Section 21, in the east half of the west half, you've got three wells that are

25 stacked on top of each other, 40 acres apart.

```
We're a little closer to Section 17,
          ο.
 1
  aren't we?
 2
          Α.
               Yeah.
 3
               How many other Wolfcamp wells has Hanley
 4
          ο.
  drilled in New Mexico?
 5
               What do you mean Wolfcamp wells, we've
 6
  drilled? Wolfcamp wells we've produced from or
 7
  wells that we've drilled to the Wolfcamp?
 8
 9
               How many Wolfcamp wells are you
10 operating right now in New Mexico?
11
          Α.
               No Wolfcamp producers.
12
          Q.
               Now, I believe you said structure is
13
  important?
14
          Α.
               Yes.
15
          Q.
               Our proposed location -- And what is the
  difference between Santa Fe's proposed location and
  Hanley's location?
17
18
               Santa Fe's proposed location and --
          Α.
19
          ο.
               Yes.
              -- Right?
20
          Α.
21
               Yes, footage difference in structure.
22
          Α.
               In structure is between 25 and, say,
              Again we're dealing with a 50 foot
23
  30 feet.
  contour in there.
24
25
          Q.
               Okay.
```

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1
               We would be at 25 to 30 feet higher than
  their proposed location at the base of the lower
 3
  Wolfcamp.
               Okay. Then drop down to Section 17, and
 4
 5 take that well in the southwest to the northwest
 6 quarter of Section 17?
 7
               Southwest of the northwest, E --
          Α.
  Ouadrant E?
 9
          ο.
               Yes.
10
          Α.
               Uh-huh.
11
               How much lower structurally is that well
          Q.
12 than Hanley's proposed location?
13
          Α.
               Proposed location -- about 67 feet
14
  lower.
15
               Are you aware of how much that well has
          Q.
16 produced?
17
          Α.
               Yeah, I am.
               How much?
18
          Q.
               Oh, somewhere in the 200,000 range.
19
20 also produces from a different reservoir from the
   one that the Santa Fe Kachina 8 Federal produces
22
   from.
23
               Okay. Well, let's get into that.
          Q.
24 the wells do produce from some of the different
25 pays; right?
```

Right. Α.

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- And so that might affect your comments 3 about effective 40-acre spacing, because some of 4 those wells might be producing from different pays, even though they're direct 40-acre offsets; isn't 6 that correct?
- It's correct, although some of the intervals in the wells have perforated over a large -- large intervals where there's no way to 10 determine what zone is producing. You just know you're getting oil out of a couple hundred feet of 12 section.
- 13 MR. BRUCE: I'll pass the witness to 14 Mr. Carr.
- MR. KELLAHIN: Mr. Bracken, why don't you 15 16 have a seat.
  - EXAMINATION
- 18 BY MR. CARR:
- Mr. Bracken, if I understood your 19 20 testimony, you stated that you believe the Hanley location was structurally higher than that proposed 21 by Santa Fe; is that correct?
- 23 Α. Yes.
- And if I also understood your testimony, 24 Q. 25 you stated that one of the benefits that would come

from a higher structural location is that you would 2 have less of a potential water problem in the well; is that what you said?

- Less risk of water production, right.
- Now, I know you told Mr. Bruce that you 6 don't operate any Wolfcamp wells in New Mexico. You 7 have studied the wells in the general area of this 8 location, have you not?
- In this location, as well as throughout 10 the southeastern New Mexico and Midland Basin areas, 11 Permian Basin.
- 12 And if I look at your structure map, Q. 13 it's on the base of all Wolfcamp structures; is that 14 correct? On Exhibit Number 2?
- 15 Α. Base of the lower Wolfcamp structure? 16 Right.
- Q. And what you said was you're 17 18 experiencing a drop off as you move toward the 19 south; is that right?
- There is dips -- down-dip structure to 20 Α. 21 the south.
- 22 Q. And the yellow spots on this will show Wolfcamp wells; is that right?
- Α. Uh-huh. 24

4

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Q. And they are south of your proposed 25

```
location?
 2
          Α.
               That is right.
               And they're down structure?
 3
          Q.
               That is right.
 4
          Α.
               And are you aware of any real water
 5
  problems anyone is having down there?
 6
 7
          Α.
               Yes, I am. But I'm not prepared to
  testify to that. Somebody else will.
               You're going to have testimony on the
 9
          Q.
10 water problems that are coming down structure?
11
          Α.
               You bet.
12
          0.
               With a -- how much difference are you
13
  talking about between the proposed location and the
  Santa Fe location?
               How much difference in what?
15
          Α.
               In structure. How much lower?
16
          0.
               Between our location and the proposed
17
          Α.
18
  location of Santa Fe?
19
          Ο.
               Yes.
20
               Again, between 25 and 30 feet.
          Α.
   location is going to be between 25 and 30 feet low,
   at the base of the lower Wolfcamp.
22
23
               Now, you prepared the structure map?
          Q.
24
          Α.
               Yes.
25
          Q.
               And in preparing it, did you use any
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seismic?
 1
               No, sir, I did not.
 2
          Α.
               It's all well control?
 3
 4
          Α.
               Yes.
               If I look at the wells off -- I think
 5
 6 they're -- well, I believe they're deeper wells.
  Are they Morrow -- they're the wells in Section 7.
 8 There's one with a letter B by it and it's a circle
 9 with a dot.
10
          Α.
               Yes.
               That's a deeper well than the Wolfcamp?
11
          ο.
               Well, if you look at the legend there, a
12
          Α.
  dot with a circle around it means that it reached
13
  the Wolfcamp. And what I mean by reaching the
  Wolfcamp, that may be just the top of the upper
15
16
  Wolfcamp --
               Okay. What does NDE mean?
17
          ο.
18
               It means not deep enough.
          Α.
19
          Q.
               So that's not a well that you used in
   structuring a structure map on the base of the
20
   Wolfcamp?
21
22
          Α.
               On the base of the Wolfcamp, now, I have
   a up -- top of the lower Wolfcamp which I do have a
23
   structure point on that.
               But my point is when you say NDE on --
25
          Q.
```

```
1
               It's not deep enough at that point,
 2
  correct.
 3
               Now, if I look at this I don't see wells
 4 north -- or really west of the proposed location
 5 that seem to have penetrated the Wolfcamp; is that
 6 right?
 7
          Α.
               You don't see them on that -- that
 8
  display.
 9
               And this display goes, oh, a mile west
          0.
10 and at least a mile north?
11
          Α.
               That is correct from my --
12
          Q.
               And how close did you have actual
   Wolfcamp control north that you're not showing on
14
  this map?
               I'm going to say -- let me see. Okay, I
15
          Α.
16 believe -- let's see. It would be between 29, 30,
   31, 32 -- I believe I have -- I don't believe it, I
18 know I had a well control up here. And then I have
  well controls farther off this map in the same
19
   township (indicating).
20
21
               And you were showing that you had well
   control northeast and east; is that right?
22
23
               Northeast and north and northeast.
          Α.
24
          Q.
               North and northeast?
```

Α.

Yes.

- Do you have anything to the west? Q.
- To the west -- I do, I do. I'm just Α. trying to remember the -- how far north they go. do have well control to the west, and to establish that -- you'll just have to take my word for it.
- Well, let me ask you this: In terms of Ο. the contours that you placed, say, in Sections 4, 5 and 6, were you using just well control in the 9 Wolfcamp to map that?
- Well, like I said, I've got well control to, I believe it's Section 32, it would be 17 South, 33 east. In fact, I have a value for that. And I 12 simply try to maintain a constant contour interval 14 from that point to where I gain well control again.
- 15 ο. And--

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- 16 Α. It's simple.
- In doing this mapping, were you only 17 using Wolfcamp data or were you trying to draw data 18 19 from formations above and below?
  - Α. Both.
- 21 Did you use some information from, say, 22 Bone Springs information to project your general 23 trends in this area?
- Yeah. 24 Α.
- 25 In your general mapping actually the Q.

Wolfcamp shelf is off the north; isn't it?

- The Wolfcamp shelf is off to the north, Α. that is right.
- And you wouldn't be able to necessarily expect Bone Springs information to mirror what you get in the Wolfcamp; isn't that fair to say?
  - Say that again?

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- Could you look at the slope in, say, the Q. Bone Springs, and be able to project what the Wolfcamp is doing from that, or would you have to 11 have other data to do that?
- 12 Project it with what degree of accuracy? Α. Just that they are conformable?
  - Did you utilize that in concluding --
- Yes, yes. The beds from -- like I said, Α. from the Yates down to the -- gosh, upper Penn would be more or less conformable and would exhibit this 18 north-to-south structural dip.
- When we look at your contours on the 20 base of the lower Wolfcamp and we look at your 70to 50-foot contour, this is the section that you selected out of the regional map to show the trend in this area; isn't that correct? You were the person that decided to use this portion of it?
  - Me, solely? Α.

Q. Well --

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- That map, yes, I did use that -- I did Α. choose that.
- Q. Okay. And when we're drawing this contour, you're utilizing the points that you have north, northeast and somewhere off to the west -three points is that what you were telling me?
  - Α. Yeah.
- And based on that and integrating your general regional study, this is your best interpretation of the lower Wolfcamp as it comes across the subject area?
  - It's my best interpretation; right. Α.
- And if we look at the three sections north of it, we see your 7250 foot contour coming -going south. If we move to the west, it drops south about a thousand feet a section, doesn't it?
  - A thousand feet a section? No, about --Α.
- Q. How many feet would you say you have come down on, say, the east side of Section 6 from the north line of that of section?
- Α. Well, every one of those heavy black So that would be about 250 feet 23 lines is 250 feet. difference from the -- if you pick a point there at 25 the northeast corner of that Section 4, is 100 and

```
something -- excuse me, 250 feet high to a point,
say, two-thirds of the way down on the left-hand
side of Section 6.
```

- And you're saying that on the surface of the ground from the corner of Section 6, to where your contour intersects it is 250 feet?
  - Not on the surface of the ground.
- How many feet on the surface of the ground? About 3,000 feet?
  - On the surface of the ground? Α.
- 11 Yes, sir. Q.

31

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- 12 It -- no. Α.
- 13 I'm asking you how many feet to the south your contour moves if you look straight down 14 15 on it?
- Well, you're confusing me now. Are we Α. 17 talking about the surface out there where you walk 18 or are we talking about this map?
- I'm talking about your map, Mr. Bracken, and I am asking you, since you say these contours are north-south, I'm asking you how much -- when you look down at it -- how much to the south you are moving on the west line of Section 6? Where does 24 this intersect with the west line of Section 6?
  - Α. Midpoint? Two-thirds of the way down.

Okay, now --Q.

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About 250 feet difference from the top Α. 3 of that section, north part of that section down to that two-thirds point on that section.

MR. STOVALL: Mr. Carr, maybe to qualify, 6 you're talking about horizontal displacement of a 7 single contour elevation. And I believe the witness is talking the vertical difference between that 9 northwest corner of the section.

10 Do you understand this -- what he is 11 saying?

- 12 I think now, after you -- say it again? Α. I'm sorry, I'm not trying to be difficult. Say it 13 14 again.
- I'm asking you if you know how many feet 15 Q. are on the side of Section 6 -- on the west side of Section 6. 17
  - About a mile -- 5,280 feet Α. Sorry.
- And if we have 5,280 feet, you have 20 moved the contour, the 7,250 foot contour how many feet down? Two-thirds of that 3,000 feet maybe?
  - Yes. Α.
- And so that means as we go across three ο. 24 sections and we're moving south -- which I imagine 25 is toward the bottom of your map; is that a fair

```
assumption?
 1
 2
               Uh-huh.
          Α.
 3
               That you have gone -- you have tilted
   this contour approximately a thousand feet per
   section across those three sections; is that right?
 5
               One thousand feet horizontal
 6
          Α.
 7
   displacement; is that what you're saying?
 8
          Q.
               That's what I'm talking about.
 9
               Yeah, okay.
          Α.
10
               Now, if we go to your 75 foot contour --
   there's a 7500 feet contour --
11
12
               Uh-huh.
          Α.
13
               It again slopes generally from northeast
          o.
14
   to southwest, horizontally?
15
          Α.
               Uh-huh.
16
          0.
               All right? And I think you stated that
   you would expect the Wolfcamp to lay perpendicular
  to the slope of your formation?
18
19
          Α.
               Yeah.
20
               Wouldn't you expect the slope -- isn't
          Q.
   the slope of the formation basically a
22
   northwest-southeast slope based on these contours
23 that you picked?
24
               Based on both contours --
          Α.
25
               That you picked.
          Q.
```

Α. To answer your question, yes. 2 Q. And you picked them? 3 Α. Yes. And if it lies perpendicular to these, 4 Q. the formation would tilt from northeast to southwest 5 6 based on this exhibit? 7 It does not tilt northest -- or --Let me just ask you this --8 g It does not tilt northeast to southwest Α. 10 based on that contour. It's the exact opposite. 11 If we were drawing a line perpendicular Q. -- the slope of this formation based on these 12 contours is northwest-southeast? Based on that? 14 Right. 15 And perpendicular to that would be northeast-southwest? 17 Α. Perpendicular to that would be --18 Q. Perpendicular --19 --would be northeast-southwest, yes. 20 MR. KELLAHIN: I don't want to intrude, but I think the directions are wrong. perpendicular, the directions would be northwest to southeast. I think you misspoke. 23 24 MR. CARR: The slope is southwest to --25 you would tilt northeast to southwest.

```
MR. KELLAHIN:
                              It's backwards.
 1
 2
              EXAMINER MORROW: Do you have any
 3
  questions, Mr. Kellahin?
 4
              MR. KELLAHIN:
                             No, sir.
 5
              EXAMINER MORROW: Let me ask you a
  question about perpendicular. On Exhibit Number 2,
 6
 7
  zero contour line --
              THE WITNESS: Uh-huh.
 8
 9
              EXAMINER MORROW: -- runs on your isopak
10
  map, runs generally east-west; is that correct?
11
              THE WITNESS:
                            Right.
              EXAMINER MORROW: And this 7500 foot line
12
                                    Jub sea
                   minus
  on the contour, mines 7500 foot subsection, on the
  contour map, the base of the map at least, is
  running north and south; is that correct?
15
16
              THE WITNESS:
                             I'm sorry. My attention
                            second.
  span lapsed there for a section.
                                     minus
                                 The mine's 7500 feet C
              EXAMINER MORROW:
18
19
   line right there. At this point is it running north
  and south?
20
21
                             Oh, yes.
              THE WITNESS:
22
              EXAMINER MORROW: Is that what you mean
  by perpendicular, the zero line is perpendicular to
        minus -- mine's 7500 foot Sub-& line; is that what
25
  you mean?
```

1 THE WITNESS: No, I mean that the total accumulation of rock, clean rock, debris, as indicated by the isopak, has a noth-south direction perpendicular to the depositional -- or structural strike which has a more or less east-west direction. 6 And this is -- this is parallel to the Perma Pan reef front to the north as well as the Abo reef front. 8 9 There are minor variations in the -- in 10 the strike -- structural strike, due to the fact that there was postdepositional tilt to the west. 12 EXAMINER MORROW: I can see that these 13 ridges that you've contoured here on your isopak map 14 on Exhibit Number 2 --15 THE WITNESS: Uh-huh. 16 EXAMINER MORROW: -- are perpendicular to 17 the Bone Springs dip, as shown on Exhibit 3. 18 that what you mean by perpendicular, that the 19 general regional dip --20 THE WITNESS: Yes. 21 EXAMINER MORROW: --as reflected on Exhibit Number 3, is perpendicular to the ridges of 23 acumulation of rock on your isopak? 24 THE WITNESS: Yes, yes. EXAMINER MORROW: Is the Santa Fe 25

```
Number 1, was that the subject well -- the well that
 2
  was the subject of the subpoena?
 3
              THE WITNESS:
                            Yes.
              EXAMINER MORROW: Do you know when
 4
  Hanley's force pooling case was filed relative to
 5
  Santa Fe's, in time?
 6
 7
              THE WITNESS: I wouldn't have that.
  wouldn't know that.
 81
 9
              EXAMINER MORROW: Did you say you'd
10 recommend 150 percent penalty for the north location
  and 200 percent for the south locations?
              THE WITNESS:
                            Yes.
12
              EXAMINER MORROW: That's all I have.
13
              MR. STOVALL: I do have a couple of
14
15
  questions. And I preface them with a statement that
  I am supposed to be an attorney, so I am, by
16
  definition, unqualified for anything.
18
              MR. KELLAHIN: I'd like a copy of that.
19
              MR. CARR: I'd like a copy of that.
20
                        EXAMINATION
  BY MR. STOVALL:
               When I look at the structure map, in
22
          Q.
  your -- I think it's your Exhibit 2 -- well, they're
24 both the same structure map; aren't they -- on both
25 of your exhibits, and your structure map is the base
```

```
of the Wolfcamp; is that what I understand you to
 2
  say?
 3
               The base of the lower Wolfcamp.
 4
               Right. Now, if I look at Mr. Thoma's,
          Q.
  the one I can see over on the wall, which I believe
 5
  is their Exhibit Number 7, looking at the structure
  map which is -- one end is identified as the
8 structure map that's actually on a -- those
  structures are drawn on a different interval in the
10 Wolfcamp; is that correct?
11
          Α.
               Can I look at the map?
               Please do. I want to make sure that I'm --
12
          Q.
13
          Α.
               Top of the AG. Yes, yes.
14
               Now, would you -- when I looked at
  these, it appeared to me that -- sitting back here
  looking at them -- they look, the strike,
  essentially the same on the two of them.
17l
18
               You say my map more or less compares to
          Α.
19
  his as far as structure?
20
          0.
               Generally speaking. I'm not talking
21
  exact.
22
          Α.
               Generally speaking, yes.
23
          ο.
               Now, you might look at it and say your
  7250 line, it's geographic location, roughly the
```

same as I think Mr. Thoma's -- is it 7500 feet -- or

```
7,000 foot line, I believe. Kind of across the top
  of Section 5?
 2
               7250 and what --7,000?
 3
          Α.
               Is that his 7,000?
 4
          Q.
 5
          Α.
               Yeah.
               So that would indicate that the marker
 6
          0.
 7 he's used is about 250 feet higher than the marker
  you've used to mark the structure, to map the
  structure; is that right?
10
               Is 250 feet higher? I don't --
11
               His is -- the portion of the formation
12 that he's mapping is about 250 feet higher than
13 yours?
               Yes.
14
          Α.
15
          0.
               Am I correct?
16
          Α.
               Yes.
               But yet using different portions of the
17
   -- and we're talking aobut the Wolfcamp, how thick
  are we talking about, the total Wolfcamp?
20
               The total Wolfcamp interval is about 650
          Α.
  feet, roughly.
22
               You're mapping the bottom of it and he's
          Q.
  mapping a third of the way up from the bottom of it;
  is that right?
25
          Α.
               Yeah, a third. Yeah.
```

- 1 We're not talking exact. Remember, I'm 2 the Division lawyer here. So even though you're mapping different intervals, you're going about the same direction really? 5 Structurally. 6 So the strike of a Wolfcamp, you're 0. pretty consistent on that, it looks like? 8 Α. Structurally. 9 Structurally. Now, I quess what you're saying, though, is when you look at your isopak, your isopak map generally orients the thickness, 12 more north-south, and his is more 13 northeast-southwest? Northeast-southwest, correct. Uh-huh. 14 15 What's the significance -- what's the Q. 16 difference? What difference does it make to us from the standpoint of trying to evaluate the 18 information? 19 It makes a big difference, because he would like you to believe that our location is going to have less rock than their location, which is -in my opinion, there's no justification for that
- I feel we're going to have -- by the way, 25 I've drawn it, based on other parameters, that we'll

24

conclusion.

```
1 have just as much rock in our location as the
  location in the south quarter section, if not more.
  That's always a possibility, because you have to
  remember that isopak map is a total of all kinds of
  zones and piles of debris coming down. We might get
 5
 6 lucky and get another zone.
 7
          Q.
               Yours is the total Wolfcamp clean line;
8
  right?
 9
          Α.
               Yes.
10
               Yours is one isopak showing all the
  clean line?
11
12
          Α.
               Yes.
13
               Within the Wolfcamp that's known as the
          Q.
  Wolfcamp formation?
14
15
          Α.
               Lower Wolfcamp.
               Lower Wolfcamp, okay. Now, there's
16
  three different isopaks picking three different
  zones within that lower Wolfcamp area; is that
18
19 correct?
               Uh-huh.
20
          Α.
21
               So again the numbers aren't the same.
  But you're saying that by piling it more
  north-south, you get more thickness on your location
  than he would give you by piling it
25 northeast-southwest?
```

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Α.
               That's right.
 2
              MR. STOVALL: I don't have any more
 3
   questions. I've got myself far enough into geology
   to get myself into trouble.
 5
              EXAMINER MORROW: Anyone else?
 6
              MR. KELLAHIN: No, sir.
 7
              EXAMINER MORROW: Thank you, Mr. Bracken.
              MR. KELLAHIN: I'd like to call at this
 8
  time Mr. Bill Huck.
10
                     WILLIAM R. HUCK,
11 was called as a witness and, having been previously
  duly sworn, was examined and testified as follows:
                        EXAMINATION
13
14 BY MR. KELLAHIN:
               Mr. Huck, would you please state your
15
          Q.
16 name and occupation?
17
          Α.
               My name is William R. Huck. I'm a
18 petroleum engineer.
               Mr. Huck, would you summarize your
19
20
   educational background?
21
               I graduated from Marietta College in
          Α.
   1977 with a BS in petroleum engineering.
23
          ο.
               Subsequent to graduation, summarize your
24
   employment as a petroleum engineer?
25
               I've worked as a petroleum engineer for
          Α.
```

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the past 14 years in West Texas and New Mexico for
various companies, namely Marathon, Hanley, Arco
Petroleum.
```

- During the course of performing your ο. duties, are you familiar with doing reserve calculations for Wolfcamp wells in the Permian Basin?
  - Yes, sir, I am. Α.
- Are you also familiar with the details 0. 10 of preparing and evaluating AFEs for the drilling of Bone Springs Wolfcamp wells and wells to other formations in the Permian Basin?
- 13 Α. Yes, I am.

4

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8

- 14 Q. Have you, as an engineer, made any estimate, studies of the potential for the Wolfcamp 15 on a reservoir basis within the Corbin Wolfcamp pool 16 17 that we're discussing today?
- 18 Α. Yes, I have.
- 19 MR. KELLAHIN: We tender Mr. Huck as an 20 expert petroleum engineer.
- 21 EXAMINER MORROW: Accept his qualifications. 221
- 23 Mr. Huck, let me direct your attention, Q. 24 sir, to what is marked Exhibit Number 5. Would you 25 identify that for us?

```
Exhibit Number 5 is a map of the south
         Α.
 Corin Wolfcamp field. The Wolfcamp completions are
 shown in yellow. This map -- the numbers beside
3
 each well indicate the cumulative oil production
 through September of 1990 for each Wolfcamp
6
 completion in the field.
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And then after the slash, it indicates the average daily oil production for September of 1990 for that particular well. For example in Section 8, on the two wells at the bottom of the section, the well in Unit M -- Number 9-M, has accumulated 51,457 barrels, and in September was 13 producing 16 barrels a day.

14 Well Number 11-0 has accumulated 135,434 barrels, and in September was producing 170 barrels 15 16 a day.

The asterisks beside some of the cumulative production indicate that that well has ceased production from the Wolfcamp.

- Q. In order to properly prepare yourself to make engineering conclusions and calculations concerning the Wolfcamp production in the Corbin Wolfcamp have you also studied the production 24 history for the well in the pool?
  - Α. Yes, sir, I have.

- And are you familiar with the production Q. information for each of those wells?
  - Yes, sir, I am. Α.

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- Were you assigned the responsibility as Q. Hanley's petroleum engineer to try to evaluate and quantify the Wolfcamp potential for the 40 acres in the north half of this spacing unit in relation to the Wolfcamp potential oil in the south half of the spacing unit?
- 10 Yes, sir, I was. Α.
- What was the methodology applied by you 11 Q. to come to a basis to form opinions?
- Basically, I used a logical sequence to 13 Α. 14 -- we'll be drilling this well, searching for oil. We try to establish trends as to where oil 15 accumulations might be in the south Corbin Wolfcamp 16 The start of this was this Exhibit Number 5, 17 field. seeing the cumulative production for each of the 18 19 wells in the field.
  - ο. Once you've done that then, what is the next process in your analysis?
- Looking at the production histories on each of the wells in the field. You try to establish -- or I tried to establish a tpyical well 25 in the field, a good well in the field, a poor well

in the field, for purposes of economic analysis and evaluating their investment.

- Q. In making that evaluation, did you prepare an isoproduction map?
  - A. Yes, sir, I did.

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- Q. And what does that mean?
- A. Shall I show it now?
- Q. I'll give it to you in a moment.
- A. Isoproduction map would be similar to -in geology, an isopa map where they contour the
  thickness of a reservoir. I would contour the
  cumulative production or estimate ultimate recovery
  from the individual wells.
- Q. Why is that information useful to you as an engineer?
- A. It leads me to conclusions as to where
  the oil may be accumulated in the south Corbin
  field, where the most oil may be accumulated in the
  south Corbin field.
- Q. Let me draw your attention to what is marked as Hanley Exhibit Number 6. Is this your isoproduction map?
- A. Yes, sir, it is.
- Q. Describe for us how you prepared the 25 map?

Exhibit Number 6, to the upper right of each Wolfcamp producer is the estimated ultimate 2 3 recovery for that well based on the decline curve analysis in thousands of barrels. These estimated ultimate recoveries were then contoured on 50,000 6 barrels to obtain this isoproduction or iso EUR map. Shown in blue, to the lower right of each well, is that well's average 1990 water production through September expressed as a percent.

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- When we look at the isoproduction map, can you draw any conclusions about the risk involved in encountering water when you test for production in the Wolfcamp zones?
- Yes, sir, you can. The occurrence of water seems to coincide with the south or downdip side of each of these oil accumulations. Let me further define the oil accumulations, that they happen in isolated areas that are defined in part by the presence or absence of porosity in the Wolfcamp. And then are also limited on the south side, or downdip side, by the presence of water in a lot of cases.
- 23 When you look at the value of the 40-acre tract in the north versus the value of the 25 40-acre tract in the south for the spacing unit,

what conclusion do you reach?

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- I've reached the conclusion that the Α. 3 value in the south -- or the well in the south quarter, quarter section of the proposed unit is a 5 greater -- much greater risk to us, reservewise, 6 than a well in the north quarter, quarter section of 7 the proposed unit.
  - Have you examined Mr. Bracken's geologic Q. interpretation to see whether or not you can draw any conclusions based upon his work as compared to your isoproduction map?
- 12 Α. Yes, sir, I have. The total 13 accumulation -- or gross accumulation of oil, tends 14 to mirror his isopakus map, in that these oil accumulations have occurred in a north-south 15 16 direction. The individual accumulations or -- to break up these accumulations, they occur in isolated 18 areas, that are more or less oriented on an 19 east-west direction, being pinched on the north by a porosity absence and pinched on the south by either 20 21 porosity absence or the presence of water. squeezes the shapes of these accumulations. 22
- 23 If you have to choose between ο. Mr. Bracken's geologic interpretation and that of 25 Mr. Thoma, and draw a comparison to your

isoproduction map, which geologic interpretation is the closer fit to your conclusions about the isoproduction map?

- Mr. Bracken's. Α.
- ο. Why?

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- Again, his gross line interval orients Α. in a north-south direction. And that corresponds to the occurrence of hydrocarbons, which is what we're looking for in this case.
- Having come to the conclusion that the 11 Hanley 40-acre tract has greater oil potential in 12 the Wolfcamp than the Santa Fe-Heyco tract to the south, did you attempt to specifically try to quantify the reserve potential for each of those 15 tracts?
  - Yes, sir, I did. Α.
- What was the methodology applied by you Q. 18 to come to a reasonable engineering certainty about the accuracy of your numbers?
- Α. To start with the accumulation pod around the Santa Fe Kachina well -- or to start with the Santa Fe Kachina well itself. That well potential for one of the highest rates in the field and had the highest tube and pressure of any well 25 that we know of in the field. Therefore, we give it

the highest reserve value.

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And in light of the pay that appears to be above the current producing zone, we feel confident it will produce a quarter of a million barrels easily. The shape of the producing -- the accumulation pod around that well, was drawn to match the shape of the pods to the south.

If you look at the contour lines, you'll see a well on our location that we assume will produce on the order of a quarter of a million barrels of oil, while the well in the center of the 11 south quarter quarter section will produce on the 12 order of 130,000 barrels of oil. I think this is a generous assessment of the well in the south's potential, due to both moving downstructure from the 15 16 Kachina 8 Number 1 and the possible disappearance of 17 porosity.

- 18 Have you prepared your reserve estimates Q. 19 and your economic assessment in the terms of an 20 exhibit?
- 21 Α. Yeah. I've run a standard cash flow 22 analysis.
- Let me share that with everybody. 23 ο. on just a minute. 24
- 25 I've passed out Exhibit Number 7,

Hanley's Exhibit Number 7, Mr. Huck. Would you identify and describe that display?

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Exhibit Number 7 is a comparison of the Α. 4 reserves we expect between a well in the north half of the proposed unit and a well in the south of the proposed unit, and the resulting economics for producing these reserves. The well in the northwest 8 northwest quarter of that section, we think would produce approximately a quarter of a million barrels of oil, minimum, while the well in the south end would produce a maximum of 130,000 barrels.

Assuming the same net investment for either location to Hanley Petroleum, which would be 50 percent or \$334,000, it would take roughly the same amount of oil to pay out the drilling 16 investment for this well. Although a well on the 17 south end, because of a lesser initial rate, would pay out in eight months instead of four months for 19 the north well.

The main impact would be in the pretax cashflow to Hanley. A well in the north end of the unit would return to us roughly \$1.6 million, net of investment, while the well in the south end would only return roughly \$600,000, a difference of almost 25 \$1 million.

Our discounted net present value for a well in the north end would be \$1.2 million, 3 compared to \$450,000 per well in the south end, 4 again a difference of roughly three-quarters of a 5 million dollars. Likewise our royalty interest 6 under this 40-acre tract would suffer to the tune of 7 a quarter of a million dollars. In terms of the net present value, what 8 does that show? 9 10 The present value to the royalty 11 interest? 12 ο. That's the bottom line on the display, 13 the 432? Royalty interests, net present 14 Yes. 15 value for a well in the north end would be \$432,000 compared to \$185,000 for a well in the south end. 161 As I mentioned, the difference of a quarter of a 17 18 million dollars. 19 The next portion of the display the captioned risk analysis? 20 21 Yes, sir. Α. What are you studying here and what are 22 23 the conclusions? 24 This is a statistical summary of the Α.

25 EURs for all the wells in the South Corbin Wolfcamp

field, which there's 32 by our count. It doesn't include the wells that were dry holes in the 3 Wolfcamp. Statistically speaking, if you can lump

these wells into categories, the first category 6 being zero to 45,000 barrels, the amount to pay out -- required to pay out your drilling investment, 13 of these wells or over 40 percent will not produce the 45,000 barrels.

An additional 7 wells, for a total of 20, or 63 percent, would produce less than 90,000 barrels of oil, or the amount which would be considered minimum economics for a development location.

- Mr. Offenberger was using the assumption that the well in the west half of the northwest corridor would have 100,000 barrels of oil recoverable, if I remember that correctly?
  - Α. Yes, sir.

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- If that is the assumption, would that be Q. economically profitable to the working interest owners, if that's all the reserves there were to share in the 80-acre spacing units?
- That would be borderline economics. 24 Α. 25 What we would consider the minimum reserves

necessary to require -- to justify the investment in a development Wolfcamp location.

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I might point out, if you want to go back to Exhibit Number 5, the cumulative production from 5 these wells, you'll see -- and also Exhibit 6, the 6 EURs -- there's a range of zero to 250,000 There's -- nowhere does the average hover 7 barrels. 8 around 100,000 barrels per 80-acre unit. You can 9 move diagonally away from a good well and get a poor 10 well if you look at -- on Exhibit 7 -- well, we'll just stay with Exhibit 5.

You move southwest from the southeast quarter of Section 8, Well Number 11-0 has produced 135,000 barrels of oil. You move southwest, you find a well that watered out after producing only 30,000 barrels of oil. Then you come to a well that's produced over 200,000 barrels and we expect it to produce around a quarter of a million.

EXAMINER MORROW: What's the location 19 You lost me. 20 again?

THE WITNESS: You would be starting with the well in the southeast quarter of Section 8 and Unit O, and move southwest diagonally, you come to 24 the well in the northwest quarter of 17. It watered 25 out and no longer produces from the Wolfcamp.

You move further southwest to the well 1 along the west line of 17, it's produced 213,000 barrels and we expect it to produce a quarter of a million. 4 You move further southwest to the next 5 It's produced 39,000 barrels. We expect it 6 to accumulate around 75,000 barrels. It's producing at an 85 percent water cut right now. 8 9 EXAMINER MORROW: Okay. 10 When you look at the ultimate recovery 11 number that you've put on Exhibit Number 7, did you 12 derive that number based upon a volumetric calculation? 131 14 No, sir, it was derived on decline curve 15 analysis. 16 Let me have you describe for us your ο. decline curve analysis that gave you those results 17 and ultimate recoveries. 18 19 If I might offer --20 Yes, sir, we need to find where the Q. curves are. 21 22 Mr. Examiner, this is a graphic 23 representation of the --24 MR. KELLAHIN: Excuse me, Bill. 25 Α. Sorry.

- All right, please continue, Mr. Huck. Q.
- This is a graphic representation Α. Okay. of the historical oil production from every well in the field. I apologize, it's a lot of data on a lot of wells.

But, basically, each well has been separated by color. The estimated declines in the future that these EURs are based on show a stash line out to the right of the solid lines, which is the actual data to date.

- 0. Let me stop you --
- 12 EXAMINER MORROW: -- To the right --
- 13 The dash lines out to the right signify 14 the estimated future oil stream that I used in 15 evaluating the EURs for each well in the field.
- Q. Let me stop you and ask you whether or not for the Wolfcamp you can take the typical 17 18 volumetric calculation and come up with a reliable 19 estimate of recoverable oil for a given spacing unit? 20
  - No, sir, you can't. Α.
- 22 Q. Why not?

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23 Α. To use volumetrics, you've got to assume a uniform thickness or uniform porosity over an entire drainage area. The depositional nature of 25

these limestone pods would give you variations in porisity and permiability, well to well, over short distances. You just have to make too many assumptions to have a valid reserve estimation for 5 each well.

- How would the multiplicity of fractures in the varying size and shape and length of those fractures affect a volumetric calculation?
- Α. It could affect it dramatically if 10 they're shorter than appear to be by well log, or longer than would appear to be by your well log.
- ο. Volumetrically, is there any reliable 13 way to calculate the -- in a realistic basis, the poor volume that would contain the oil in the 14 15 reservoir?
  - Α. No, sir.

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- 17 ο. The best choice then is the decline 18 curve analysis?
- 19 Yes, sir, that's what you get back from 20 the well.
- ο. Let's talk then about Exhibits 8, 9 and 10, and have you take us through the main points of that information to show us how you support the 24 reliability of your ultimate recovery numbers 25 utilized in Exhibit Number 7.

Okay. Again, each well's production history is plotted on a similog paper in a historical fashion. To the left you see oil rate and barrels per month. And on the bottom scale you just see time in years. And you see different starting points for each well, because this is an actual historical representation.

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In all cases, you see a fairly steep decline indicative of primarily solution gas drive for the first year to two years -- the average is about 60 percent. Then it levels off to 23 to 30 percent over the rest of the 12-year life.

You can fit or match a good well to this, start a well out at top allowable, decline it at 60 percent for almost two years, then flatten it out. You'll match up with some of the better wells in this field. You can start out a well at a half allowable, around 200 barrels a day, let it decline likewise for two years, and flatten it out. And you will match up with some of the mediocre wells in this field.

Q. Based upon your engineering study, Mr. Huck, do you have a recommendation for the 24 Examiner for a risk factor penalty to be applied if 25 he allows Hanley the opportunity to have the well

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located in the north 40-acre tract of the spacing
 2
  unit --
 3
          Α.
              Yes --
              -- versus locating it in the south 40?
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          Q.
               Yes, sir, I do.
 5
          Α.
               What is that opinion?
 6
          Q.
 7
               Based on the expected reserves
  recoverable in these locations, we feel much less
 8
  risk to be applied to a well in the north end of the
10 proposed unit.
11
               Do you have a percentage level in
  accordance with the risk factor penalty formula that
1.3
  you can recommend to the Examiner?
               I feel a risk factor of 150 percent
14
  would be equitable to the risk -- relative risk
15
  involved with the north location.
16
17
               Have you also examined the rules that
          Q.
   apply to the Corbin Wolfcamp pool, Mr. Huck?
19
               Yes, sir, I have.
20
               Let me show you what is marked as
          0.
   Exhibit Number 11, and ask you if this is a true and
   accurate copy of the rules as you know them to
22
  exist?
23
24
               Yes, sir, it is.
          Α.
25
          Q.
               Santa Fe has urged that there should be
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maintained some kind of sequence so that the opposite 40-acre tracts, in fact, have the well. Do you find in your examination of the rules that apply currently to the pool, that there's that type of limitation or restriction?

- A. No, sir, there's no limitation other than that a well has to be within 150 feet of a governmental quarter -- within 150 feet of the center of a governmental quarter, quarter section. In fact, Rule 2 specifically provides for the drilling of wells on adjacent quarter, quarter sections.
- Q. With regards to the possibility of having Rule 3 of the special rules used as a solution to this problem, whereby each operator is allowed the opportunity to drill a Wolfcamp well and then have a nonstandard operation unit dedicated consisting of 40 acres, is that a viable solution in your opinion?
- A. In my opinion it's a more viable solution for Hanley, rather than participating in a well in the south end to drill 100 percent well in the north end and accept the penalty.
- Q. If the well is awarded in the north 40 acres, and it's on a 40-acre spacing unit, what

would its producing allowable be in relation to the offsetting Kachina 8 Number 1 well?

> It would be half. Α.

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- Would that be equitable and fair? Q.
- Α. As far as rules of capture, no, it wouldn't. Interference between the wells -- there would, I think, still be drainage happening to the Kachina 8's advantage.
- If the well is located as Santa Fe 0. proposes in the south 40, what will happen to the oil reserves underlying the north 40-acre tract in terms of capture by the competing wells in the immediate area?
- I feel that they'll be more likely 14 15 captured by the closest well to that unit, and also the more structurally favorable well to that unit, 16 which is the Kachina 8 Number 1.
- Let me direct your attention now, Mr. Ο. Huck, to the topic of the estimated cost for the 19 drilling of the well. Let me show you, sir, what is marked as Exhibit Number 12.
  - Α. I think you're --
- 23 MR. KELLAHIN: Take a moment,
- 24 Mr. Examiner, and see if I haven't mixed these all 25 up.

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EXAMINER MORROW: We'll take about five
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  or ten minutes here. Let's say, be back at ten till
 3
  3:00.
 4
               (A recess was taken at 2:35 p.m. until
 5
  2:53 p.m.)
 6
              EXAMINER MORROW: All right, let's
 7
  continue.
 8
               Mr. Huck, let me turn your attention now
          Q.
  to the estimated well costs that you have prepared
  on behalf of your company and analysis you have made
10
  of Santa Fe Energy's AFE that they have applied to
11
  your company. In doing so, let me direct your
  attention not only to Hanley Exhibit Number 12, but
13
14 to have you get a copy of the Santa Fe Energy
15 Exhibit Number 9. You have both of those before
16 you?
17
               Yes, I do.
          Α.
               Summarize and describe for us those
18
          Q.
   important elements to you as an engineer?
               First off, Exhibit Number 12 is
20
          Α.
21
   essentially, line-by-line comparison of the AFEs on
   Hanley's format. I'll work from Hanley's Exhibit
   Number 9, since everybody is already seen it and is
23
  familiar.
24
25
              Santa Fe objected to Hanley's omitting
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1 omitting conductor pipe from the AFE. As our 2 drilling contracts are structured, conductor is set at the expense of the contractor and a lot of contractors, if left to their own devices, leave it 5 out. In any event, the rat hole machine is also at 6 the contractor's expense and that's all included in 7 the drill and footage rate.

They objected to labor for tank battery installation. This was an omission on the Hanley AFE. We expect it to cost between \$8,000 and \$10,000.

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Battery to the south with a heated 13 treater, a thousand barrels of storage and 500 barrels of water storage recently cost us \$6500 to install.

They objected to fencing. We include that in our AFE costs -- or in our location costs of \$16,000. And that's within the line of what we've experienced in our wells in the area.

They objected to drilling equipment Inspectin of intangibles and further down rental. testing. All those -- we lump and include in our contingencies. And they are inevitably covered by our contingencies.

They object on the bottom to us not

including drilling overhead As Hanley proposed --2 or the joint operating agreement as proposed by Hanley, includes the provision that drilling overhead in addition to being placed at \$5,000, compared to Santa Fe's \$6260, and producing rate was requested to be made \$500 a month, compared to Santa Fe's \$620.

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In addition to proposing those rates, we also proposed that the provision that makes them include first-line supervision and technical support and employee salaries be included in the overhead rates.

Hanley has included some \$10,000 for supervision in the drilling of this well. This will be absorbed -- this is more than what we figure the overhead will be for drilling the well. The cost will be absorbed by Hanley. So no overhead is shown 18 on the AFE because Hanley proposes that -- again, that any overhead charges in the JOA be made to observe first-line supervision, engineering and technical salaries and charges.

We had a couple of objections to their 23 AFE. From the technical standpoint, they were going 24 to run eight and five-eights 24-pound pipe to 3,000 25 feet. Using standard practices for casing design,

we think the collapse rating of this pipe will be exceeded at a depth below 2200 feet. So we have OR OUT AFE recommended an RAFE -- or propose an RAFE with 32-pound pipe be used in your intermediate string below 2200 feet, and we can furnith it at a cost some \$6,000 less than their intermediate strength.

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Likewise, on the production strength, they've proposed five and a half, 1515 K55 casing as a portion of their design. You can -- conventional API design will allow you to use some 3500 feet of that pipe in your string, but due to the probability of uphole completions later and stimulation down the casing, we'd prefer and are willing to furnish -again, at a lesser cost -- at least 17-pound K pipe, if not 17-pound M80, in the drilling -- if we get to operate the well.

Thus, the basic differences in the AFE.

- When you get down to the bottom line totals on a dry hole versus AFE and a completed well versus each AFE, where are we?
- For a dry hole? As Mr. Roberts stated, Α. when you adjust for this omission of drilling overhead and abandonment costs -- which we don't include in a development well -- for dry hole costs 25 they're essentially the same. But for a completed

well, Hanley is some \$80,000 to \$90,000 cheaper.

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- In your opinion, Mr. Huck, does Hanley Petroleum Company have the qualified personnel and the expertise and experience to be designated by the Division as the operator of this well?
- Yes, sir, they do. Hanley operates over 300 wells in the Permian Basin and has interests in hundreds more. We've produced some 1 million barrels of oil last year, and right at 3 bcf of gas. We've been around since the turn of the century. We're qualified to operate in the Permian Basin. We've operated some -- if we might go to a -- I'm

probably getting ahead of myself.

We've operated some five wells in this immediate area -- three wells in this immediate There's a Bone Spring well to the south, a PD area. to 8700 feet. There's another Bone Spring well to the township to the west, PD'd at 8800 feet. drilled a well to the Morrow to the west in Township 29 east -- Range 29 east. We drilled through the Wolfcamp in that well.

We're -- we have drilled in this area and 22 23 we're qualified to drill in this area.

Does the fact that Santa Fe Energy --Q. 25 does the fact that they have drilled more wells in

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the immediate vicinity than Hanley cause you, as an
 2 engineer, to conclude that they're more qualified to
 3 be operator than you are?
               Not more qualified, sir, no.
               Do you have some actual costs to compare
 5
 6 your AFE cost, too, so that the Examiner can have
   confidence that your AFE, which is lower than
  Santa Fe's is a reliable, realistic number?
 8
 9
               Yes, sir, I do.
10
          Q.
               How do you make that comparison?
               I have a summary of AFE versus actual
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          Α.
  costs on a well drilled, if we might go ahead and
  offer it.
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               Yes, sir. It will be Exhibit -- Exhibit
14
               Is that what you have?
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   13, is it?
16
          Α.
               Yes, 13.
17
          ο.
               Thirteen.
               Everybody has copies?
18
          Α.
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          Q.
               Yes.
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              EXAMINER MORROW: Is that the one marked
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   12?
22
              MR. KELLAHIN:
                              It's this one. Let me
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   give it to you, if it didn't get marked.
              EXAMINER MORROW: Thank you very much.
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               Exhibit Number 13, Gentlemen, is a
          Α.
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comparison of AFE versus actual costs for an 8700 foot Bone Spring test drilled three miles to the south of this subject acreage.

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To summarize the comparison, the well is completed. These costs are 99 percent complete, are actual costs for \$542,000 compared to an AFE cost of \$536,000. We overspent the AFE by one percent. we had some extra rig time that -- due to holes in the drill pipe kind of caused most of that.

The well was spudded on December 29th. It was completed on February 6th. This being March 8, I think it's fair to note that 30 days after the completion of the well, our first line accounting procedures on the well is complete. have a summary of our charges in, checks have been written, bills have been paid, where this joint interest well would be invoicing the partners at 18 this point.

I might also had this \$542,000 was a completed Bone Springs producer through the tanks. Earlier, Mr. Roberts, I believe, referred to allocating some \$660,000 of completed well costs to the Bone Springs in the subject acreage. We believe that's a little excessive.

> What does it cost you for a Bone Springs Q.

completion?

- A. In this case it waas \$542,000.
- Q. Turn now to Exhibit Number 14, and identify and describe that display?
- A. Exhibit Number 14 is a list of wells operated by Hanley in New Mexico to date. And then below that a list of outside operated wells in which Hanley has a working interest in New Mexico to date. Keep in mind we have really started focusing and working over here in 1983.
- Q. Have you analyzed the question of cost allocation so that if the Examiner feels it's appropriate to allocate costs between the Bone Springs and the Wolfcamp portion of this well, that he may do so in some fair and reasonable way?
  - A. Yes, sir, I have.
- Q. What is the basic information that you utilized upon which to draw conclusions about appropriate cost allocations?
  - A. I've read the record of some prior cases in which cost allocation was adopted for shallower zones. I've studied the completed well costs of shallower wells in the area, compared to deeper wells in the area. And, basically, that's it.

Formulated what I believe is a fair and

equitable method of cross-identification.

- Specifically, Mr. Huck, did you make ο. yourself familiar and aware of the Division Order R-9093C entered in the Yates Energy Corporation case on November 29, 1990?
  - Α. Yes, sir.

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MR. KELLAHIN: Mr. Examiner, I show you a copy of that order for your information.

- In addition, have you proposed cost 10 allocation and is that formula shown on Exhibit 15?
  - Yes, sir, it is. Α.
- And then, finaly, on Exhibit 16 is that 12 13 the Copus Bulletin Number 2 that shows a method of 14 determining cost allocations for joint operations?
- I have -- as part of Exhibit 15, or 15 should be Exhibit 16, I think there's an example 16 allocation. 17
- Q. We are missing that from the package. 18
- 19 If you'll give me some more copies, we'll add that to Exhibit 15. 20
- Here you go. Somehow it got folded up 21 22 over here.
- I'm going to mark your example cost 23 ο. 24 allocation as Exhibit Number 17, Mr. Huck. This one 25 is not in the package.

Α. Okay.

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- Let's go back then to Exhibit 15 and have you compare it -- well, first of all, go to 15 and describe for us the methodology you propose to utilize for the allocation of costs between the shallow formations and the Wolfcamp test?
- Yes, sir. First off, we propose and ask Α. that shallow costs be allocated on the basis of -on this basis for a well drilled in either the north 10 end or the south end of the proposed unit. exhibit outlines Hanley's proposed method of allocating costs between the Wolfcamp and any 13 shallower zones of different ownership, should the 14 well bore no longer produce from the Wolfcamp. method of allocation is outlined in the Copus 16 Bulletin Number 2 that we've offered as Exhibit Number 16, entitled determination of values for well cost adjustment of joint operation and has been adopted by the Commission in prior cases, most notably Order Number R9093C, as mentioned by Mr. Kellahin.

To summarize the parameters we propose under Section A, the determination of intangible costs, we would like to see the actual historical costs used. And if the Wolfcamp produces and

adjustments are made down the road, these historical costs coulde be amortized using the straight-line method in Section 3, where the number of years produced are divided by the total number of years expected to be in the life of the well.

Under Section B, the allocation of these intangible costs, we refer to Subsections 1A and 2 of the Bulletin --

(A five-minute recess was taken from 3:10 p.m. until 3:15 p.m., to replace a broken stenograph machine.).

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MR. KELLAHIN: Go ahead.

To continue, again, the determination of Α. 14 intangible costs, we ask that the actual historical costs be used. To allocate intangible costs we 16 refer to Subsections 1A and 2, which allocate such 17 costs on a drill and day ratio. We ask that this day ratio equal the number of days to drill to 100 feet below any shallow zone of interest, be divided by the total number of days from spud to riq release and any activities known to be zone specific such as DSTs or coring be withheld from the total cost and the corresponding days deducted from the 24 total days before making this division.

We propose the tangible costs be

determined as in Subsection 1A, which is basically 2 the actual costs at the time of installation and 3 depreciated according to Subsection 2B, which is a 4 time straight line depreciation over seven years. The -- I believe that's the normal life of tangible 6 goods for tax purposes.

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We ask that these tangible costs be allocated according to Subsections 1, 2 and 3, to summarize casing that any -- if both zones produce 10 then any casing that serves both zones be equally the costs be equally divided between those zones.

If only one zone produces or only a shallower zone produced, then the casing that serves that zone will be 100 percent attributable to that 16 zone.

Well head and production tankage are referred to in Sections 2 and 3 and basically the same allocation formula is proposed.

As Part 2 of this proposal that -- for the purpose of these calculations, Hanley proposals that the operators of the subject well be required 23 to provide all working interest owners an accounting 24 of the actual well costs within 60 days of the 25 completion of drilling and completion operations.

Exhibit 17 is simply an example allocation using these proposed parameters. assumed that the shallow zone is the Wolfcamp at 9,000 feet. The costs are from Hanley's AFE 5 furnished on 1/7/91, totaling \$667,000.

And the drilling day ratio is taken from Santa Fe's Kachina 8 Federal Number 1 where it took 15 days to drill to 9,000 feet. We allowed two extra days there making a total of 17 for logging 10 and running casing.

They spent a total of 33 days on the 12 well. We took out for the -- the attempted DST and 13 the TC problem for a total of 30 under total days.

- ο. Let me interrupt you for a second.
- Yes, sir. Α.

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- I think you misspoke when you said 16 Q. Wolfcamp at 9,000 feet? 17
- 18 I'm sorry, I meant Bone Springs at Α. 19 9,000 feet.

Going back to the drill day ratios, the resulting ratio would be 17 divided by 30, or .566. My main point of this exhibit without going into every line, if you look at the total dry hole costs 23 attributable to the Bone Springs, it amounts to 25 \$278,000.

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              This compares to a total dry hole cost on
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  Hanley's Federal 24 well, with Bone Spring producer
  to the south, of $287,000, and compares to a --
  equivalent dry hole cost on a Kachina 8 Federal
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  Number 1 at this depth of $261,000.
              So the method, the result of the method
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 7
  is in line with what would actually be expected to
  drill a Bone Springs well in the area, and we feel
  it's fair and equitable.
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              MR. KELLAHIN: That concludes my
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  presentation, Mr. Huck.
              We move for introduction of his
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  Exhibits 5 through 17.
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              EXAMINER MORROW:
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                                 Exhibits 5 through 17,
15 were there that many?
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              MR. KELLAHIN:
                             Yes, sir.
                             It didn't seem like it.
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              MR. STOVALL:
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              EXAMINER MORROW: Exhibits 5 through 17
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  are admitted.
20
                         (Hanley Exhibits 5 through 17
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                           admitted into evidence.)
22
              MR. CARR:
                          I just have a couple of short
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  ones.
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## EXAMINATION

2 BY MR. CARR:

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- According to Mr. Kellahin, I have proven 4 I don't know what perpendicular means. Now, I'm going to show you I don't know what an isoproduction map is. My question is what are you mapping here? This is your Exhibit Number 6.
  - If we can refer to it as an isoproduction map or iso-EUR, that is the estimated ultimate recovery values for each Wolfcamp producer.
- So what you take is the ultimate 11 recovery and then are you -- what are you mapping, a 12 13 drainage area or --
- You're contouring it, from 50,000 barrel 14 intervals. 15
- Okay. Does this in any way relate --16 Ο. do you integrate geology or the isopak maps that are 18 prepared by the geologists into this or is this an 19 independent tool that you use?
- 20 Initially, it's independent. contour it and you see has shape you come up with. 22 In this case we found out that these pods, particularly the areas that would give you 150,000
- 24 to 250,000 barrels per well are extremely small and 25 isolated. The overall pods, going down to the

smaller reserves seem to be squashed into an east-west elongation due to, we think, water production on the south end.

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After you get the shapes, that's determined independently. They also happen to correspond to this area. The overall oil accumulation corresponds to the area of greatest overall clean carbonate thickness in the Wolfcamp.

- So if we look at the pod you've drawn ο. 10 around your proposed location and the Kachina 8 Number 1, you've elongated that east-west; is that right?
  - I've elongated it somewhat east-west. Α.
- 14 If we look at other ones, like the one down in 16, that seems to be a elongated 15 16 north-south, why is that?
  - Α. You have to --
- 18 ο. It would move around --
- 19 I know where you're talking about, Α. Yes. down but -- down in the southeast corner of 16?
- 21 Yes, in the southeast. It's got a 50 Q. with a question mark after it on the isoproduction 23 map I have. Why would you go north-south there?
- 24 That's been -- the zero line has been Α. 25 pulled to the north a little bit there honoring this

1 100 barrels that was produced off to the northwest, 2 and which ought to really be considered a dry hole. 3 But it produced 100 barrels, so we put it on there.

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The well to the southeast, which just completed, we've given it 125,000 barrels of reserves. Its potential was for 400 barrels a day, but it the tubing pressure was down around 300 pounds, I believe. It's going to be a good well, but how good we don't know.

- Q. And so what you're doing, for the record, is you're taking these points that show, I guess, ultimate recovery in 500 -- or 50,000 barrels increments, and you're honoring these and building a map just like you built a structure map with geologic points. Is that similar?
  - A. Yes, a similar process.
- Q. Now if I go to the pods that you've drawn around your proposed location and the immediate east offset, how is it that you've structured -- placed that so that it extends over the 40-acre tract that you own and control in that area?
- A. Again, I've shaped it to match the orientation and the shape of the pods to the south which have -- a lot of those wells have produced

for, some of them five, six, some of them as much as twelve years.

If I look at this map, you've shaded some of these spots blue, and that is the percent 5 water cut; is that what that is?

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- The blue number to the lower right of each well is the percent water cut. The blue 8 coloring is a relative coloring of the dot. Ninety percent is nearly entirely blue; 50 percent is half blue.
  - Q. And can you tell me what in your opinion these blue dots show you about this reservoir?
  - The blue dots show me that as you sit on Α. the south or downdip side of these oil accumulations, these pods, they seem to be limited or trapped on the north by the absence of porosity. And as you sit on the southwest side you produced water sooner. You produced greater quantities of it, and your ultimate recovery is affected by it.
  - Does that mean that if you're ο. downstructure, you've got a water problem?
    - Yes, sir, in most cases. Α.
- If you look at the Kachina 2 Number 8, I 23 24 think that's it, it's the well in the southeast 25 I'm sorry, southwest, southwest of Section 8?

```
Α.
               Southwest -- that would be well
 1
 2 Number 9M.
               Well, it's the Kachina -- I think
 3
          ο.
  8 Number 2. It's in Section 8 in the southwest
 5 southwest. It has -- what?
              EXAMINER MORROW: I think Number 2 is a
 6
  proposed well, I believe.
 7
 8
               All right. Well then let's look at the
          Q.
  well down here in the southwest southwest.
10
          Α.
               Yes, sir.
11
          ο.
               If we look at that well -- and I go back
  to your structure map -- it appears that it has a
        it's at a depth of 7459; might be?
13
14
          Α.
               Okay, yes, sir.
15
               And if you compare that well and you go
          Q.
  down in Section 17 to the south, slightly east,
  there's a well down there in the northeast of the
  southwest that's got a 10 percent water cut?
18
19
               Northeast of the southwest? Yes, sir.
20
               And that well, if I relate it back to
  your structure map, is at a minus 7474. That would
  be deeper -- a deeper depth than this well in the
  southwest southwest?
23
24
              Yes, sir.
          Α.
```

How do you explain the fact that it's

25

Q.

got a 10 percent water rate being deeper in the 2 reservoir than that well -- than the well in the 3 southwest, southwest?

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The well in Section 17, Number 2 K, I 5 believe is what it's called, is completed and would 6 be either the AC or AD carbonates as referred to in the uppermost part of the zone. The well in the 8 southwest southwest of Section 8, well Number 9 M, I think it's West Corbin Number 9 M, is completed and I would call it the E zone -- or it would probably correspond to the E zone.

Additionally, it seems to be on the south side of another pod, another trap mechanism.

- So, correct me I'm not trying to Q. misstate has you're saying. That's because it's -perhaps because it is in a different part of the Wolfcamp.
- 18 Probably a different part of the Α. Wolfcamp and/or a different porosity pod. 19
- If we move from the well in the southwest southwest of 18 and move to the east, we 21 get a well that, I guess, has a five percent water 23 Do you see that well? It's in Section 8. cut. 24 It's in the southwest of the southeast and it's got a 5 by it, a 5 percent water cut? 25

Yes, sir. Α.

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- Now, compare that to the structure map that's at a depth of minus 7500 feet, or 41 feet lower than the well in the southwest southwest?
  - Α. Yes, sir.
- Again, if I asked you to explain that Q. would your answer be the same?
- Again, that well is completed in what Α. would be considered -- Santa Fe calls their AG. 10 We'll call it the basal line of the lower Wolfcamp package. It's a very good well, by the way. 12 see that here -- you'll see a good well like in the 13 southeast of Section 8, like in the northwest of 14 Section 17.

And like in the southeast of Section 16, 16 you'll see one good well that will produce these 17 kind of reserves. But then as they've moved away 18 from it, there's locations move away from it, you see a greater increase in water, particularly on the downdip side.

- 21 Q. Okay. And could that be again because it's in a different part of the Wolfcamp?
  - A different part or different porosity. Α.
- 24 Q. Pcds?
- 25 Α. Pcd.

- Q. Or could it be a different stringer or different strand in the reservoir?
- A. A different porosity pod; we'll call it pay zone. Again there's a trapping mechanism on the north side -- oh, or on the updip sides of the stuff that has to be an absence of porosity. But this map is an evaluation of the local Wolfcamp interval, that's why you have these variations.
- Q. And that's consistent with the way your geology has been done on this portion?
  - A. It happens to match it, yes, sir.
- Q. If you get these differences because
  they're in different zones, wouldn't it be better to
  evaluate it on the different stringers, as Mr. Thoma
  has, of the different zones instead of grouping it
  all together?
- A. Not for picking our one location in our one chance at oil in this reservoir. We need to evaluate them on a cumulative basis.
- Q. If I go to your Exhibit Number 7?
- 21 A. Yes, sir.

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- Q. And you have an ultimate recovery
  estimated for a well at your location of 260,000
  barrels?
- A. Yes, sir.

Q. Now, how did you come up with that number?

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- I think due to structural position and Α. proximity -- proximity with a capital P, that we'll 5 have reserves comparable to the Kachina 8 Number 1.
- And then how did you get that number. 6 7 I mean is it
- We gave the Kachina 8 Number 1 a quarter Α. of a million barrels, again because it had the 10 highest potential of any well recorded in the field, had the highest tube pressure along with that potentiality. So we give it an ultimate recovery equal to the highest in the field.
- And then, because you're a little bit 14 ο. higher than that, you increase the number; is that 15 fair? I'm not trying to testify. 16
- If you call it increasing from 250 to 17 I think the total on my economic analysis came 18 out to 260; that's just the way the decline totaled. 19 20 That extra barrel 12 years in the future is insignificant. 21
- 22 So you're expecting a well that would be comparable to the offsetting well? 23
- 24 Α. Yes, sir.
- 25 Did you take into account you would have Q.

two wells in this one pod competing for those reserves, and how that might affect the number? Yes, it may reduce their well. 3 Α. But it would not reduce yours? 4 Q. It's possible that it might. Yes, it's 5 6 possible. 7 But you didn't factor that in in reaching this? 8 9 There's such an open end on the up sides Α. of these reserves for these two wells on the north end. You can give the Santa Fe well a quarter of a 11 12 million barrels just out of the 30 feet they got 13 perforated, and they've got 40 to 60 feet above that in a middle zone, and they've got another zone above 14 15 that. I don't think either well will produce 16 less than a quarter of a million barrels. 18 Q. And you're basing that on the one point in this circle of the isoproduction map? 19 Yes, sir, I am. 20 Α. 21 And from that point you're going to extrapolate into the northwest northwest of the 23 section? 24 Α. Yes, sir, I am. 25 Q. And you can put two wells in a pod

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that's about the same size as some of these that
 2 have 250 foot total pods?
               Yes, sir.
 3
          Α.
 4
               And you can say each of them will get a
          ο.
 5
  quarter of a million?
 6
          Α.
               You say 250 for the total pod.
 7
               No, that's probably a misstatement.
          0.
  You've got 250 on the existing well in the pods?
 8
 9
          Α.
               Uh-huh.
               And you're -- it's your estimate that
10
  you've got two wells in there that each would
11
  produce that?
               Yes, sir.
13
          Α.
14
              MR. CARR:
                           That's all thank you.
15
                         EXAMINATION
16
  BY MR. BRUCE:
               Mr. Huck, were you here when
17
          ο.
18 Mr. Offenberger testified?
               Yes, sir.
19
          Α.
20
               And did you hear him comment about
          ο.
  pressure drop in the Wolfcamp?
               Yes, sir.
22
          Α.
               And if I remember, I believe he said
23
24 that pressure drop on offsetting 40 acre Wolfcamp --
25 in the north well Wolfcamp was about a thousand
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pounds in six months; is that correct?
 2
               I recall a thousand pound pressure drop
 3
  in his testimony. If you say it was six months --
 4
               Let's assume for now it's six months.
          0.
 5
          Α.
               Yes.
 6
               Would that have any effect on your
          Q.
  calculations of reserves for Hanley's proposed
 8
  location?
 g
               Again, it's the up side is so great on
          Α.
10 the Kachina 8 Number 1, you can put a quarter of a
  million barrels comfortably in the only zone they've
12
  got perforated. I think there's interference, or
13
  will be interference, between their well and the
14 well in the north end of our tracts. But that
15
  interference is a two-way street. It shouldn't all
  go to the Kachina 8 Number 1.
16
17
          Q.
               Well wouldn't 25 percent pressure
18
  depletion within six months kind of alarm you?
19
          Α.
               Yes, it would.
20
               Now, referring to Exhibit 6, again, you
          Q.
  draw these pods, and you have one rather large one
   in the south covering parts of Sections 17 and 16,
22
23
  18?
               Yes, sir.
24
          Α.
25
               Couldn't -- looking at Section 18,
          Q.
```

- isn't it possible, if you're correct on these pods, 2 that perhaps the well in the northwest quarter of Section 18 and the one in the northwest and northeast of the of Section 18 would form a separate 5 pod from those to the east?
  - Yes, sir, I think it's possible that it Α. There's not enough control to close off the could. circles.

8

9

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19

- And by the same token, the other four ο. 10 wells, the two in the east half -- east half of Section 18, and the two wells in the northwest 11 quarter of Section 17 could form a separate porosity 13 pod?
- Two wells in the northwest --I don't Α. 15 think so. You have a production limitation on the 16 north side here that allows all the wells basically in Section 17 on the south end of 17, to be in the 18 same pod.
- Q. Okay. Well let's take that then. 20 the wells in the south end of Section 17 could be on one pod. And then you just admitted that over to the west those two wells on Section 18 could be in pods. If that was the case those pods would be 24 oriented in a northeast southeast direction, 25 wouldn't they?

- Are you talking about their shape? Α.
- Yes, their shape. Kind of an oval Q. shape, or with the --
- I agree with the oval shape. I don't agree with the northeast southwest axis.
  - Ο. No, why not?

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- You have your data points on the west half of 17 and the east half of 18; that precludes you from shifting or twisting that elongation around to the southwest.
- ο. Well, you do have a porosity pod over in Section 16 that's oriented in a north-south direction or after that fashion, isn't it?
- Again, we had to honor those points -that 100 barrel point up in -- or I have honored the hundred barrel up in the northwest corner of That stretches that pod. If you eliminate 16. 18 that, that pod itself squishes more into a circular.
- But it's possible, for instance, you know, in the area of the Kachina 8 Number 1 well, that pod could be oriented either north-south or northeast-southwest? 22
- It's possible, although even if you 23 24 orient it that way, if you'll look at the well in 25 the southwest corner of Section 16, Well Number 2 N,

I believe it is, it's Federal 16 Number 2 N. It has a 75 percent water cut. That well come in every bit as good as Number 1 J up in the bullseye of the pods produced for seven months and the water hit and production dropped off to near zero.

- Q. Which one is higher structure, really?
- A. It really shows the Number 2 to be higher on the base of the Wolfcamp structure, really.
- Q. The one that has the 75 percent water cut is higher structurally than the one that has a 50 percent water cut; is that has you're saying?
- A. Yes, sir. But I might add to it, they are in different zones. The one that has the dashed 50 percent, again, that's according to gas engineering committee records and that water cut coming up suspiciously at the same time that Well Number 2's water cut came up. But well number two is the only one that developed in production.

But going back to my original point, Well Number 1 J is in what would be the basal carbonate zone. Well Number 2 is in has would be the middle carbonate zone to us.

Q. Now in your estimation which well, 25 looking at Section 8 -- which of these wells is

```
going to drain, the north -- or I should say the
  north half of the northwest quarter?
               Which wells would better drain?
3
         Α.
              MR. KELLAHIN: You're talking between
4
  Santa Fe's proposed well and Hanley's proposed
5
6 well?
7
              Well, I'm saying which of these wells?
8 Look at them. Say, take the Kachina 8 Number 1.
  There's a well that will -- still to be completed in
10 the northeast of the southwest and then there will
  be Hanley's well, assuming Hanley's well gets its
12
  location.
               So which of those three would better
13
  drain the south half of the proposed unit?
15 would depend on which location would have a porosity
16 zone connecting into the south half of that
17 proration unit. And I would assume that to be any
18 units -- that the closest would have the best
19
  location.
20
               So it could be Hanley's location?
          ο.
               More likely Hanley's location.
21
               It could be the well in the northeast or
22
          Q.
  the southwest, couldn't it?
23
```

Less likely, it's further away.

But that well in the northeast of the

24

25

Α.

Q.

southwest doesn't have a 40-acre offset, does it?

No, sir, it doesn't still.

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- Mr. Huck, how did you arrive at ultimate recovery for the 8 Number 1 well?
- Again, it was its potential for the 6 highest oil rate of any well in the field and its flow in pressure was higher than any well in the field, so we gave it an EUR highest of any of the 9 wells in the field.
- And for that you used those declining 10 11 curves -- I forget the exhibit number?
- No, there's no curves, just potential 12 some 60 days ago. It's still producing to my 13 14 knowledge at top level.
- Now, your basis for the recovery of the 15 other wells you have on this Exhibit 6, that is based on declining curve analysis; isn't it? 17
  - Yes, sir, it is. Α.
- And these wells, say, looking at 19 Section 17 that's based on 80-acre spacing, isn't 20 21 it?
- The ones that are currently drilled yes, 22 Α. Except for the 5E, that's offset 40 acres to 23 24 the west.
  - Q. That's the only one that is offset by a

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40-acre well; is it not?
 2
               Yes, sir, it is.
          Α.
               One final question, Mr. Huck. Do you
 3
  know if Santa Fe's application is granted, will
 5 Hanley join in that one?
          Α.
               I would recommend that they not.
 6
 7 would recommend that they apply for their own
  location to the north.
 9
              MR. BRUCE:
                           Thank you, Mr. Examiner.
10
              EXAMINER MORROW: You have anything Mr.
11 Kellahin?
12
                              No, sir.
              MR. KELLAHIN:
13
              EXAMINER MORROW: On Exhibit 5,
14 Mr. Huck, you showed a cumulative and current
15 prediction. I believe you said through September,
16 or the current one as of during the month of
17 September.
18
              THE WITNESS:
                             September 1990.
19
              EXAMINER MORROW:
                                 That was what they
20 produced, averaged in September. On Exhibit 7,
  tell me again why the payout was different for the
22 two cases.
                             The lower indication or
23
              THE WITNESS:
24 the 130 barrel case at the Santa Fe location, it
25 requires roughly --
```

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EXAMINER MORROW:
                                 The payout time is
 1
  what I'm getting at, the four months and eight
2
 3 months.
                             The declining curve to
 4
              THE WITNESS:
5 match those reserves would start at a lesser rate,
6 it would take that well eight months to produce that
7 85,000 barrels of oil.
8
              EXAMINER MORROW:
                                 So you don't think it
9 would produce at top allowable?
10
              THE WITNESS:
                             No, sir, I don't.
11
              EXAMINER MORROW: Okay. What is top
12
  allowable?
                             Top allowable is 445
13
              THE WITNESS:
14 barrels a day for an 80-acre well.
15
              EXAMINER MORROW:
                               And you recommended
  150 percent risk penalty for a Hanley well.
  would you recommend for the Santa Fe well, you said
18 higher?
19
              THE WITNESS:
                             It's a higher risk well.
20
  I assume that a higher risk would apply. They've
  been quoting 200 percent.
22
              EXAMINER MORROW: Let's see on
23| Exhibit 6, again, that everybody talks about in
24 Section 8, the two wells with a Santa Fe Kachina 8
25 Number 1 has a 250 beside it.
```

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Yes, sir.
 1
              THE WITNESS:
 2
              EXAMINER MORROW: And the well down in
  the southwest of the southeast has a 257 beside it.
 4
              THE WITNESS: Yes, sir.
 5
              EXAMINER MORROW: Did you have any
 6
  control points between those two --
              THE WITNESS: No, sir.
 7
 8
              EXAMINER MORROW: -- wells?
 9
              THE WITNESS: There are none.
10
              EXAMINER MORROW: Do you think there's
11
  any secondary recovery potential in this reservoir
12
   -- secondary or tertiary after primary is
13 recovered?
              THE WITNESS: I think we -- I think you
14
15 would find it a grossly inefficient flood. I don't
  think you'd see water I put in one well showing up
  anywhere else.
17
18
              EXAMINER MORROW: You don't think it
19 would be?
              THE WITNESS: I think it would be
20
  unsuccessful.
              THE EXAMINER: Unsuccessful.
22
  Santa Fe drilled a well, or if Hanley drilled a
  well, would the building be on the actual cost or
25 estimated cost?
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THE WITNESS: You're talking about for
1
  allocation?
2
3
             EXAMINER MORROW: Billing of partners,
                    YOUR
  would you billion the partner on your estimated AFE
5
  costs or actual AFE costs.
6
              THE WITNESS: I believe it's on the
  actual field costs as the tickets come in off the
  well. I don't know -- I don't think Hanley
8
9 prebills.
              EXAMINER MORROW:
                                 On the allocation of
10
  costs, what is the bottom line on that Exhibit 17,
11
  what -- say, if Hanley did drill a well and the
12
  costs were allocated, and assume you made at least
  three types of wells, what would you allocate to
14
15
  the --
16
              THE WITNESS: For a complete -- what
17 would I allocate to the Wolfcamp?
                                 Yes, sir.
18
              EXAMINER MORROW:
              THE WITNESS: As this stuff works the
19
20 partners would be billed for actual costs at the
  time the Wolfcamp was completed. Then at the time
  the well was completed to the Bone Spring, the
  allocation would be made and the Bone Spring owners
24 would reimburse --
             EXAMINER MORROW: They will reimburse?
25
```

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The Wolfcamp owners based
 1
              THE WITNESS:
 2
  on the relative positions.
 3
              EXAMINER MORROW: You indicated you had
  recommend that the Hanley drill a well in that north
  40 acres if faced with the choice of joining
 5
  Santa Fe or not. Would the rules, current rules,
  permit you to do that?
 8
              THE WITNESS:
                             Yes, sir, they would.
 9
              EXAMINER MORROW: That's all I have.
10
              MR. STOVALL: Before I start, I want to
11 find out if Mr. Kellahin has any other witnesses.
12
              MR. KELLAHIN: Yes, I do. I have one
  last witness, Mr. Stovall.
14
              MR. STOVALL: What are his areas of
15
  expertise and scope of testimony?
16
              MR. KELLAHIN: He is the president of
  Hanley Petroleum Company.
18
              MR. STOVALL: He's the one I want.
              MR. KELLAHIN: He's a geologist.
19
              MR. STOVALL: The main man is here.
20
  I'll wait.
22
              EXAMINER MORROW: Mr. Huck, you may be
2.3
  excused.
24
25
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L.D. ROBBINS, 1 2 was called as a witness and, having been previously sworn, was examined and testified as follows: 3 EXAMINATION 4 BY MR. KELLAHIN: 5 Mr. Robbins, for the record would you 6 Q. please state your name and occupation? My name is L.D. Robbins, and I am the 8 Α. president of Hanley Petroleum. Do you hold a professional degree in 10 0. 11 either petroleum geology or engineering? I have a Bachelor's in petroleum 12 Α. geology, and a Master's from Tulsa University. 14 In has years did you obtain each of 15 those degrees? 16 1955 and 1967. 17 Have you testified before the Oil Q. 18 Conservation Division of New Mexico on prior occasions in either your capacity as president of Hanley Petroleum, Inc., or in your capacity as a 20 petroleum geologist? 22 Α. Yes, sir. 23 Have the employees of your company that 24 have testified previously in this case been under 25 your control and management with regards to their

```
analysis of the data available to your company and
 2
  available to you?
 3
          Α.
               Yes, they have.
               Based upon your own professional
 4
          Q.
  judgment as a geologist, as well as your perspective
 5
  as the president of Hanley Petroleum, Inc., do you
  have certain conclusions and recommendations to the
  Examiner with regards to these applications?
 8
 9
               Yes, I do.
          Α.
              MR. KELLAHIN: We tender Mr. Robbins as
10
  an expert petroleum geologist.
12
              EXAMINER MORROW: Mr. Robbins was that
    '57 or '67?
13
              THE WITNESS: '67.
14
              EXAMINER MORROW: You certainly
15
16 qualify. And we'll accept his qualifications.
17
               Mr. Robbins, earlier this morning
          Q.
18 Mr. Murphy testified that he had an oral
19 conversation with someone at Hanley Petroleum -- I
  think in the spring of 1990, in which he first asked
20
  your company to contribute in some fashion,
  participation of your 40-acre tract with the well
  that has actually been drilled. It's the Kachina 8
23
  Number 1 well?
25
          Α.
               (Witness nods).
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- Did he have contact with you, sir? Q.
- Α. No, sir.

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- To the best of your knowledge, did he Q. have contact with any of your employees or personnel?
- Not to my knowledge. And along those lines we have about 28 employees, and all but about 7 of these are in the field pumping wells and doing work like that. So within our office, those that are there, four are accountants. And so the rest of the group are just right next door to each other.

Along those lines, you know, we were told this morning that Hanley Petroleum had been sitting on their lease forever and that this was Santa Fe's Just to set the record straight, we prospect. bought our lease in 1986 at a competitive federal 16 sale, a 40-acre lease. The adjoining acreage owned by the federal government was unleased. 18

- There is adjoining acreage that later 19 Ο. is in Section 8? 20
  - The north half of Section 8. Α.
  - The north half, okay?
- And that acreage was then put up for 23 Α. sale in 1990, I believe, and we were outbid by a 25 combine composed of Santa Fe and Yates. So it was

very prudent for us to wait for the rest of the acreage to come up where we could complete the leaseholds on our prospects that we had long before Santa Fe had a leasehold in the area.

- Before the federal acreage came available to 40 and 80 acres spacing units?
  - (Witness nods). Α.

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- What then happened? ο.
- Well, the next thing that happened was Α. 10 that we had -- Santa Fe had got that acreage and we noticed they staked the location. And we thought, well, they would surely contact us. Usually when you're drilling a well next to an offset operator, you'll contact them for support.

I went to all my employees about anything coming from Santa Fe asking us that they would join or support our well and they said, no, nobody called We polled everyone that worked there in anybody. the office. We never received anything in writing, a proposal to drill a well, ask for dry hole support, or join in the well.

So we were still sitting there where we thought their well was a location, and the next thing, we start getting things in the mail, registered mail, certified, return receipt, you will do this in 10 days, and all this stuff.

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And, you know, if you've been down these roads before, you say, what's going on with this well up there. And then when the thing started to unravel and we finally got the data smoked out, we saw they had completed a major well just 510 feet from our leasehold.

- As a petroleum geologist have you been Q. involved with your technical people in analyzing and evaluating the geology with regards to the choice of location between the Hanley acreage and the Santa Fe - Heyco acreage south of the spacing unit?
- Α. Yes, sir, I have. I might add to that starting back in 1968, out in the basin here in New Mexico, there were these different types of wells that would start to show up where the people would be drilling to deeper horizons and it was hard to explain what kind of rock it was.

And, anyway, it developed and later when I was with Marathon Dr. John Larms, Lloyd Pray, and others, studied these carbonate debris flows in the Wolfcamp and in the Bone Springs. And their analysis based on cores and outcrop studies and 24 other things, were that these deposits were, indeed, 25 deposited out in the deep basin off of the high

standing reef fronts that in this particular area were to the north and trended generally from the 3 west towards the east.

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And this goes clear up through Abo. 5 because of the nature of the deposits being density 6 flows and this rubble comes rolling down, for whatever reason, they tend to take the path of least resistance, which is down slope.

- Prior to today, had you had an ο. opportunity to actually see the Santa Fe geologic interpretation as to the well locations?
- No, sir. Except I might add from one Α. previous hearing they had, on one particular so-called zone. I might add, too, about these deposits, they're -- you can correlate a deposit like the lower Wolfcamp that may be 600 feet thick and it may be a mile or so, or two miles wide, and it may be some miles long.

But when you get within this, all of this rubble and stuff, and you look at a well, that's a penetration of the whole thing, and you get another location from it, or maybe two locations. You may sometimes be able to trace a block or a pile of 24 blocks or something.

But when get much beyond this, and you

start correlating it, then you're fooling yourself, because it is not continuous. And so when you layer 3 cake something that isn't layer cake, you're just manufacturing a map that will show, you know, thicks where maybe 11 out of 15 or 20 wells, or whatever it is, are dry holes.

You're the man that writes the check. Ο. You're the guy that's going to decide for your company where you're going to spend your dollars?

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- When you look at Mr. Bracken's geologic interpretation and you have that to contrast against Mr. Thoma's geologic interpretation, you have two qeologists and you must make the business judgments about which to believe and where to put your money, what are you going to do?
- Well, I prefer the northwest northwest Α. of Section 8 because this location will recover the most oil. It will recover the most oil in the It will recover the most oil in the Bone Springs. It will recover the most oil in the Wolfcamp.
- I think Mr. Huck's analysis of contouring 23 the ultimate recovery of these wells, from all of 24 the various zones in this interval of lower Wolfcamp 25 shows that the high productive areas are what we

fondly refer to as sweet spots, are isolated, and your best chance of recovering the most oil is in the closest proximity you can get to that. And it's also referred to as closeology.

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- Mr. Thoma has got an analysis that pods lie in the carbonated reservoir in the northwest to northwest of 8 to what Mr. Bracken has. Now, how are you going to resolve that?
- There again, when you contour all of the Α. 10 clean carbonates in the lower Wolfcamp, it contours in a north-south direction, more or less parallel to what the structural strike was at that time. 12 was keeping its orientation because this was the depositional position of it. When you get up in the structure, there's a tertiary tilt involved and you cut a window in a map, it may look like it has a little skew.

Nonetheless, this is the way we expect the most rock, and therefore the most potential and the most zones to be.

- Mr. Thoma dismisses the importance of ο. water in the Wolfcamp formation as a question for people in your position in terms of deciding well locations.
  - Α. Well, it is astonishing testimony when

you see Mr. Huck's exhibits and here are, like where
there's some productive history on the wells down
there, 18 and 17 -- wells making 85 percent water,

percent water, 85 percent water, to say that
water is not important in this trend.

Q. When you take water into consideration, where then would you place this well in this spacing unit?

6

- A. I would get as high as I could. Now I'm
  not any reservoir engineer, but believe me, I
  understand oil and water and structure.
- Q. In the absence of a well in the
  northwest of the northwest of 8, what is your
  assessment about your abilities to protect your
  protective rights from competition by the Santa Fe
  Kachina 8 Number 1 well immediately to the east of
  your 40-acre tracts?
- A. Well, first off, they're 510 feet from our lease line right now, and they're producing oil and they've been producing oil, for well over a month. So we're in jeopardy right now. And, also, our royalty owner, the federal government, where they have a quarter royalty under us at these rates and an eighth for the offsetting acreage. So we're concerned about royalty.

- 0. What is your recommendation to the 2 Examiner regarding a risk factor penalty to be 3 applied in this pooling case?
- Well, Santa Fe is proposing, I believe, a 200 percent penalty, which I think is the maximum, 6 above recovery of the costs on their proposed 7 location for the 8-2. We feel ours has 8 substantially less risk, so we're willing to cut 9 this to 150 percent.
  - And your assessment, Mr. Robbins, is Ο. Hanley Petroleum, Inc., ready, willing and able to act as an operator? Can you do so in a prudent and effective manner if the Division allows you the opportunity to be the operator?
- Yes, sir. We will. We've been in the Α. business a long time. We operate over 340 wells in the Permian Basin and have interests in hundreds of 17 others. And Mr. Huck summarized what oil we produced last year. And I know we're a demonstrated, qualified operator and that we can do 20 an efficient job and that we can do it cheaper.

MR. KELLAHIN: That concludes my examination of Mr. Robbins.

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## EXAMINATION 1 2 ВΥ MR. CARR: Mr. Robbins, if I understood your 3 testimony, you obtained the property in 1987? '86, I believe, is right. Isn't that 5 6 correct, Mr. Rogers? MR. ROGERS: We acquired it in a sale in 7 8 the fall of '86, the lease was effective January 1. 9 MR. STOVALL: We have a sworn witness 10 who's trying to say something. I'm going to ask the Examiner to strike that. 11 '86 approximately, sometime ago. 12 Α. You've been holding the property since 13 Q. Why did you decide to go forward with 14 that time. 15 the pooling case now? Our lease has been in effect since that 16 Α. It was a 10-year lease. And why now did you go forward with the 18 Q. 19 pooling? Was it the drilling of an offsetting 20 well? 21 Yes. Α. 22 Q. And when you decided to go forward with 23 this well, did you contact the other interest owners 24 about putting together a tract for the -- for the

25 drilling of this well?

- We have no other interest owners in our Α. We own it 100 percent. 40 acres.
- Did you consider putting together an ο. 80-acre tract form of a well?

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- We have proposed to force pool the west 6 half of the northwest quarter into an 80 acre Wolfcamp proration unit with the stipulation that the location be in the northwest northwest.
- With this proposal, did you ask Santa Fe 0. 10 to join with you in that effort?
  - Α. Yes, I think we did ask them.
- 12 0. Did you ever contacts Yates and ask them to voluntarily participate?
- 14 No, we've never contacted Yates. Α. Wе 15 understood they were not the operator.
  - Ο. And you knew --
- 17 Α. We did contact Yates though, pardon me, to support us as operator of a well. And we were 18 informed they would support us as operators of a They later reversed their position that they 20 21 would support us as operators of the well.
- 22 You did know they had an interest in the Q. 23 tract that was going to be pooled?
- 24 Α. Yes, they have a -- it is our 25 understanding in the Santa Fe lease they own

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25 percent, they own 50 percent.
2
         Q. Did you ever ask them to join and pay
3 their share in the well?
         A. We were asking Yates to do that through
4
5 our pooling.
6
         Q. Did you ever ask them for farmout or any
7 other way voluntarily join?
8
              No, we have not asked Yates or Santa Fe
         Α.
9 of a farmout of interest. We figured, you know,
10 with the type of well that they had, that would be a
11 waste of our time.
12
         Q. Did you see the answer that was filed in
13 this case?
14
             MR. KELLAHIN: In which case Mr. Carr?
             MR. CARR: I'm sorry, the pooling case
15
16 for Hanley?
17
         A. Hanley's application or Santa Fe's?
18
         Q.
             Hanley's.
             MR. KELLAHIN: Let me find a copy in
19
20 here.
         Just a second.
             I'm sorry for the interruption.
21
             Now my question was, sir, have you seen
22
         Q.
23 the answer filed in this case by Hanley Petroleum,
24
  Inc.?
         A. I have. I think I have general
25
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knowledge of it. I did not write it and I did not
 2 prepare it.
 3
             Let me just --
         0.
 4
              MR. CARR: Tom, if you want to look at
5 this, that's the transmittal letter and the
 6 application.
 7
              EXAMINER MORROW: What is that,
  Mr. Carr?
81
9
              MR. CARR: That is a copy.
10
              MR. STOVALL: We have it in the file,
11 too.
12
              MR. CARR: That's a copy of application
13 that was filed by Hanley.
14
              MR. STOVALL: I'll find it for you.
15
              MR. CARR: May I show that to the
16 witness?
17
              EXAMINER MORROW: Why don't you hold up
  just a minute, until we find it. We don't have it.
18
19
              MR. STOVALL: Here's a copy.
20
              EXAMINER MORROW:
                                 Continue.
21
              (By Mr. Carr) I'd like to show you what
          Q.
  we understand to be and have received as the
  application filed in this case on behalf of Hanley.
24
  Would you look at that for a minute, please, sir?
25
         A. I just got through reading it.
```

- I'd like to direct your attention to ο. Paragraph 4 on Page 2 where it states that Hanley has sought voluntary agreement from the interest owners in the well and has been unable to obtain their voluntary agreement; isn't that correct?
  - Α. That's what this says.
- And then if you go to the back of that on the very last page, find the signature pages, is an Exhibit A that shows Harvey Yates is one of the 10 interest owners that needs to be pooled?
  - That's correct. Α.

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- 12 And I understand your testimony to be Q. 13 that you didn't ask Yates to voluntarily --
- I think we sent Yates an AFE, a copy of 14 Α. 15 our AFE.
- 16 Do you know when that might have been sent? 17
- Let me see. I think I have it right 18 Α. 19 here. January 7.
- And this application was transmitted to 20 ο. the Oil Conservation five days before, isn't that 22 true?
- That's what the dates show. 23 Α.
- And this morning Mr. Kellahin asked 24 0. 25 Mr. Murphy if he didn't think it was strange to

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commence pooling before he --
 2
              MR. KELLAHIN: I'm going to object.
 3 think Mr. Robbins is not the right witness. I'm the
 4 witness Mr. Carr wants to address. I did the
 5 application on behalf of my client and I'll be happy
 6 to testify if he likes.
              MR. CARR: I'm asking questions of
 7
 8 Mr. Robbins, and that's an appropriate question.
 9
              MR. KELLAHIN: If he knows the answer,
10 he can respond.
11
              MR. CARR: Did you --
12
               Let's back up now and begin at the
          Α.
13 beginning.
14
               I'm asking --
          0.
               If you begin at the beginning, all of
15
16 this business of drilling a well, and keeping it
  tight, and no potential on it for 60 days, and
17
18 forced pooling started with Santa Fe, who is Harvey
19
   Yates' partner.
20
          0.
               Did you hear the question I was asking
  Mr. Murphy this morning?
22
          Α.
               Yes.
23
               My question is, why did you file a
          ο.
  pooling answer before you had attempted to negotiate
25 with Heyco?
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Because Heyco was Santa Fe's partner. 1 Α. 2 But you haven't negotiated directly with Q. Heyco? 3 4 Α. No. 5 MR. CARR: Okay. May it please --And Heyco was not the operator was the 6 reason. It was nothing to do with Heyco, per se. 71 8 MR. CARR: I have no further questions 9 of this witness. EXAMINER MORROW: Mr. Bruce? 10 11 EXAMINATION MR. BRUCE: 12 BYMr. Robbins, I believe you answered that 13 0. 14 Hanley has had their lease for about four years or so -- owned this lease, the northwest northwest of 15 Section 8? 16 17 Yes, something over four years. Α. And how long have you been aware that 18 Q. there was a good Bone Springs potential or good 20 Wolfcamp potential in the northwest quarter? 21 Our study in the area began, oh, 22 somewhere in '83 or in when we started putting more 23 of the emphasis on this particular trend in New 24 Mexico. And so we had been studying the area for a

25 long time and preparing maps, and analyzing data and

trying to get a leasehold. We were successful in getting a few tracts along the trends.

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We mentioned a couple that we just finished developing, and this was a tract, and this was one of our prospects we developed here.

- You bought the lease because you thought 0. it was a good area?
- Well, as I recall, we paid about, almost Α. \$400 an acre for this acreage, for the royalty on With a quarter royalty on it.
- Well, how come sometime sooner than ο. this, you didn't drill a 40-acre Bone Spring well or maybe also drill it down to the Wolfcamp with a 40-acre nonstandard unit? I believe Mr. Huck said 40 acre units would be preferable to Hanley?
- I know you're not an oil man, obviously. Α. You don't drill a 40-acre, 12,000 foot wildcat well. You try to build yourself a block where if you're lucky enough to find something, you don't have all your risk riding on one well and you're able to make a real economic success, like Santa Fe and Yates, when they formed their combine on the rest of the acreage she'sets theirs up a block to drill their wildcat well. 24
  - And their testimony was they have Q.

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interests, or Santa Fe any way has interests, in
2
  about 3,000 acres in this immediate area?
               Well, I'll just have to rely on your
3
          Α.
4 knowledge for that.
5
              MR. BRUCE:
                           I have nothing further.
                                 Mr. Robbins, did
6
              EXAMINER MORROW:
  Santa Fe contact you concerning your participation
8 in the their Kachina 8 Number 2 prior to their
  filing the compulsory pooling application?
9
10
              THE WITNESS:
                             I think we got a letter,
  some days -- I'm just relying on my memory here, and
11
  my landman handled all this. But my recollection is
13
  we handled a certified return request letter which
14 was a sort of a -- you know, reply within 10 days to
15 join or farmout on a, you know, unacceptable type of
16 a proposal.
17
              And then shortly after that and I think
  it was in a matter of days rather than weeks, they
19
  filed their forced pooling.
20
              EXAMINER MORROW: Do you know on their
  forced pooling application whether or not it was
  filed prior to your forced pooling application?
22
23
                           Yes, sir, it was, I know
              THE WITNESS:
24 that.
25
              EXAMINER MORROW: It was filed earlier?
```

THE WITNESS: Yes. 1 2 EXAMINER MORROW: Bob, do you have any 3 questions? 4 MR. STOVALL: Yes, I do have a few, Mr. Examiner. 5 6 EXAMINATION 7 BY MR. STOVALL: I quess I'll back up and do this 8 chronologically, now. You say Hanley bought the lease in 1986, is that correct, the 40 acres? 10 I believe that's correct. 11 Α. 12 And perhaps if somebody could find 13 Santa Fe Exhibit 2 for you, we can use that as kind 14 of a reference so that I know whether we're talking 15 on the same thing. 16 And did I hear you say then that the 17 balance of the acreage in Section 8 was unleased at 18 the time you purchased it? 19 That's my -- yes, sir, it was either Α. 20 unleased or it was leased and expired and then 21 became available. But it was not -- it was not in 22 the lease sale when we bought the 40 acres that was all that was included in our prospect. And my 24 recollection is that it was unleased. 25 Q. Are you familiar with the BLM nominating

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process for leases at that time?
 2
          Α.
               For the BLM?
               This is federal acreage; is that
 3
   correct?
 4
               Yes, sir.
 5
          Α.
 6
               Do you know a process they used --
          Q.
               Our lease was bought, as I recall, on a
 7
          Α.
  KGS sale.
 8
 9
               Which would -- that was back in the
          0.
10 time when they still -- did they have the
  competitive and noncompetitive processes; is that
12 correct?
13
               That's correct. And if I recall right,
14 we bought ours at a oral sale. I may be wrong on
15 that, but I'm thinking it was an oral sale.
               Based upon your belief, you know, if it
16
          Ο.
  was KGF, if it went to competitive sale, it was
18 KGF. Would that mean that the rest of the north
19 half would also have been KGF?
               For some reason I don't know the details
20
   on it, I'd have to ask my landman. But when this
   other part came up, it was in a different type of
23
  sale. It was not a KGF sale because it had this
  one-eighth royalty on it.
          Q. It came up in 1990, approximately?
25
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I think that's right.

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- I will state for the record I am aware ο. that the BLM changed its bidding processes between 1986 and 1990 and then eliminated.
- Yes, and I was dismayed when I found out 6 this other had a eighth royalty and our 40 had a sliding scale.
- ο. Do you know about the acreage in Section 7 -- do you know what the status of that was at the 10 time you purchased the --
- 11 Α. As I remember -- again, I'm not qualified as a land expert, but just as my general 13 knowledge of the area, I think it was held by 14 production.
- 15 ο. Were you president of Hanley at the 16 time?
  - Yes, sir, since 1982. Α.
    - And in Section 5 what was -ο.
- 19 I think this was held for production. Α.
- What about the south half of Section 8? 20 Q.
- Well, I think -- I'm not sure, but as I Α. recall it was held by production. I do remember 23 this, that the lease situation in here, that the only acreage in terms of trying to build a block to 25 evaluate a prospect, our strategy was to get this

first tract that came open and then buy this other when it came up at the sale.

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And then we proposed to drill a well. Wе would approach offset operators for support.

- Do you know when in 1990 the balance of Section 8 became available -- when it was purchased? Let me say that -- let me rephrase that question.
- Α. I'm not sure. I'm looking at this map that Santa Fe provided, and it says H.E. Yates, 10 et al., 6-1-90.
- 11 Ο. So that would indicate that it was probably purchased, actually became under lease, in 13 about May?
  - First of June 1990, I'd guess. Α.
- 15 Now would it be safe to say at that ο. point you realized that the 40 acres was all you were going to have in that area?
  - Α. That's sure the way it looked.
- 19 Did you -- what did you do? What did 0. your company do then at that point? 20
- Α. Well, we kept our powder dry and waited to see what the other lease holders were going to do, those that had enough acreage to drill a wildcat 24 well on.
  - Q. So you didn't initiate any efforts --

- No, it would be the tail trying to wag the dog, so to speak, at this point. At this point what we're talking about is development drilling.
- Okay. When did you fist propose Ο. drilling a well? When did you internally -- when did you, as president of Hanley, authorize drafting an AFE and proposing a well for your acreage?
- After we got this forced pooling from Α. Santa Fe, and we were able to subpoena their data and find out what the well data indicated and to evaluate the prospects.
- I'm going to go through the sequences and make sure I understand it. Now the first thing you say, Hanley testified that they thought they'd contacted you about the Number 1 well?
  - Α. Yes.

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- It's your belief that nobody in your organization --
- Yes that's -- to my recollection, I never talked to anybody. And I specifically asked all my employees if they ever talked to anybody, and they say they never talked to Santa Fe about it. And it's my knowledge -- it's something like over 40 years in the oil business -- when you want to set 25 the drill, the prudent thing is to write a letter

and ask for support. And we did not receive this.

- Were all the same employees with you now ο. that were with you back at the time?
  - Α. Yes, sir.

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- Okay. Then we've got the packets -excuse me, Santa Fe Exhibit Number 3 which goes through the history of correspondence, and we'll just let that stand in the record. We don't need to go back and read all that.
- 10 But Santa Fe approached Hanley in November; Hanley did not agree to participate at 11 12 that time?
- I don't know that that's a correct Α. summarization of our position. We received -- and if you'll read the letter that we received from 16 Santa Fe, it was not, "come over and talk about drilling a well with us. " It was a very cut and 18 dried, give or take, 10 days.
  - And when we got there letter we said, "what is going on up there"? And they said, well they've got a lease up there. I said, well, somebody better go up there and see that location, also.
- 24 And when we got there, the well is down 25 and here we're getting this letter.

```
You're talking about the Number 1 well?
1
         Q.
2
          Α.
               The 8 - 1.
               I'm talking Number 2 and the stuff
 3
  that's in Exhibit Number 3. They sent a letter
  offering to either have you join the well or
5
  farmout?
 7
              EXAMINER MORROW: Let me be sure I
  understand. When you got the correspondence on the
8
  8 Number 2, you sent someone up there to see about
10 the 8 Number 2; is that correct.
              THE WITNESS: Yes, sir. We wanted to
11
12 see what was going on. We were caught flat-footed.
13
              EXAMINER MORROW: You never did --
14
              THE WITNESS: I never did get any
15 correspondence on 8-2.
16
              MR. STOVALL: Mr. Examiner, can I take
  one minute? I have got to answer a phone call.
17
18
               (A brief recess was taken.)
19
              MR. STOVALL:
                           Now I'm just going to
20
  summarize what I understand the record to be.
21
  There's no point to having you retestify to the
  whole thing. And we're talking only about the
23
  Number 2 well at this point.
              The record indicates that Santa Fe first
24
25 approached Hanley on November 12, 1990. Hanley
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responded asking for more information and suggesting
  that they would like to operate the well, that
 3 Hanley would like to operate the well.
  Conversation was had in -- more communication took
 5 place in December and sometime in early to mid-
 6 December, Santa Fe filed their application for
  forced pooling.
 7
 8
          Α.
               Our --
 9
               Is that it so far?
          0.
10
               Is this our exhibit you're reading
          Α.
11
  from?
12
               This is Santa Fe Exhibit Number 3.
          Ο.
13
          Α.
               Did we present our exhibit?
              MR. KELLAHIN: We have not yet presented
14
15
  our documents -- set of correspondence. It may be
  slightly different than Santa Fe's, because we have
16
  a few more bits and pieces than --
18
          Α.
               We had prepared an exhibit that was a
19
  chronological order of all the documents we know of
  that pertain to this case. Our landman was going to
20
  present it, but in the interest of time he's not
  going to testify. And so we haven't submitted that,
23 but we can submit it.
              But whatever chronological order that
24
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25 that shows is what we believe happened. Now what

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you're saying, seems to me to be the right
 2 chronology of events.
 3
              But if there's a very important point
 4 hinging on this, I really can't testify to that,
 5 because I'm not looking at it.
               Okay. I'm just trying to get a general
 6
          ο.
 7
  summary.
 8
               I think what you're saying is generally
          Α.
 9
  right.
10
               Is it that what you would offer would
          ο.
11 supplement this?
12
              MR. KELLAHIN: I propose to offer our
13 package of documents.
14
                         And I have no objection.
              MR. BRUCE:
15
              MR. KELLAHIN:
                             Without calling
16 Mr. Rogers to authenticate it, so that again, with
17 both sets of correspondence you hopefully have all
18 the pieces.
               Let me just follow this line of thinking
19
  then, because I don't think it hinges on specific
21
  details. Sometime in early to mid-December the
   Santa Fe application for forced pooling was filed;
23
  is that correct?
24
          Α.
               I think that's right.
25
          Q.
               Okay. Now as far as -- and this is what
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I'm really concerned with -- the Hanley application
2 for forced pooling was filed on -- I believe it was
3 January 2nd, I believe the record shows, the date of
4 the application. I've got it right here. It's got
5 the OCD received stamp on January 2nd.
              Did you authorize and direct that that
6
  application be filed?
7
8
         Α.
               Yes.
              If I'm not mistaken the original
9
          0.
10 application, the Santa Fe application, was scheduled
11
  for hearing on January --
              MR. KELLAHIN:
                              10th.
12
13
              And then there was the subpoena issue
14 that came up.
15
               (Witness nods).
          Α.
              MR. STOVALL: Mr. Kellahin, perhaps you
16
17 can help me again. What was the Commission's order
18 on the subpoena issue?
19
                           February 15th, Mr. Stovall.
              MR. BRUCE:
20
              MR. STOVALL:
                             February 15th.
              MR. KELLAHIN: There were several
21
  hearings on the subpoena.
23
              MR. STOVALL:
                             The Commission order is
24 the one that I'm concerned with. The one that you
25 finally --
```

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EXAMINER MORROW:
                                 I don't know if they
 1
  agreed, before it was issued.
 2
                             I think the Commission
 3
              MR. STOVALL:
  issued an order; is that not correct?
 4
 5
              MR. KELLAHIN:
                             Yes, sir.
                                         It's dated
 6
  February 15, 1991.
               (By Mr. Stovall) Okay. Hanley filed
 7
          Q.
  an amended application prior to that time to move
 8
  their proposed well to the northwest quarter; is
10 that not correct?
               Yes, sir. I know that's right.
11
          Α.
               And did you authorize that?
12
          Q.
               Yes.
13
          Α.
               Upon what information did you make that
14
          ο.
15
  decision?
               On the data that we had at that time.
16
          Α.
  And previously we didn't have this data because we
  didn't have this subpoena to obtain the additional
18
  data. We had also attained additional data about
  their well from the field. So it was -- as our
20
21
  knowledge and our understandings and everything of
22
  the area progressed, we amended our filing.
23
              MR. KELLAHIN:
                              Mr. Examiner, I'm sorry.
24 Mr. Stovall, Mr. Examiner, the amended application
25 specifically changing in writing the location was
```

```
filed on February 12th, which was after the time
  that Mr. Bruce and his client furnished us some of
 2
  the information.
 3
 4
              MR. STOVALL:
                             Okay.
                                 The original Hanley
 5
              EXAMINER MORROW:
  filing had it in the south half of that 80; is that
 6
  correct?
 7
              MR. STOVALL:
 8
                             It was the same location,
  I believe, as the original Santa Fe location; is
10 that not correct?
              MR. KELLAHIN:
                             Yes.
11
12
              MR. STOVALL:
                             So they were both
13 competing to operate the same well at this same
  location as originally filed?
14
15
              MR. KELLAHIN: Then based on a
16 preliminary analysis of the information that
  Mr. Bruce had provided to us after the January 24th
  hearing in which Mr. Catanach made some preliminary
18
19
  rulings. I'm not sure if it was -- I believe it
20
  was the 24th.
                             It was the 18th.
21
              MR. STOVALL:
22
              MR. BRUCE: I think we originally had the
  argument before Mr. Catanach about -- a week later
  being on the 18th. We did it before the Commission,
  Santa Fe -- before the written order was issued,
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turned over logs and certain other data
2 approximately the 30th or 31st of January. And the
3 written order issued on February 15th, and Santa Fe
  hand-delivered the remaining data to Mr. Kellahin, I
5 believe. On the 25th of February.
6
             MR. KELLAHIN:
                              So that's right.
  after the delivery of the first package of
  January 31st, I filed the amended application, that
9 is my recollection of the sequence.
                             Okay. I think one more
10
              MR. STOVALL:
  question will take me through there then.
               Did you authorize or direct your
12
          Q.
13 landman, after you decided to change the location to
  contact any other working interest owner in the west
15 half of the northwest quarter of Section 8 to
16 attempt to seek joinder of a well at your new
17
  proposed location?
               No, I don't think we did.
18
                             I have no further
              MR. STOVALL:
19
20
  questions.
21
              EXAMINER MORROW: Mr. Kellahin?
                              No, sir.
22
              MR. KELLAHIN:
2.3
              MR. CARR:
                          Mr. Bruce, do you have
24 questions?
25
              MR. BRUCE: No, I have not.
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Anything further of
              EXAMINER MORROW:
  this witness? Would you wish to introduce another
 2
  exhibit?
 3
              MR. KELLAHIN: Yes, sir, if now is an
 4
5
  appropriate time.
 6
              EXAMINER MORROW: I hope we're getting
7
  close to finished.
 8
              MR. KELLAHIN:
                              Exhibit 18, Mr. Examiner,
  is my Certificate of Mailing for the original
  pooling case to complete that aspect of
  presentation.
11
12
              And then if you'll permit me, I have
13 simply collectively marked as Hanley Exhibit 19,
14 Mr. Rogers' copies in chronological order of the
  documentation that -- from his perspective that
15
16 dealt with the efforts of Santa Fe and Hanley and
  Heyco to come to agreement on various aspects of the
18
  case. And we would liked that introduced as Exhibit
19
  19. Copies for Mr. Carr and Mr. Bruce.
20
              MR. BRUCE:
                          Thank you, I think.
21
                              Okay. That completes our
              MR. KELLAHIN:
  presentation, Mr. Examiner.
23
              EXAMINER MORROW: Are all the exhibits
24 in?
              MR. KELLAHIN: Yes, I think so.
25
```

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MR. STOVALL: Let's get one thing on the
2 record. Mr. Bruce and Mr. Carr, do you stipulate to
3 the Commission of Exhibit 19 or -- actually it has
4 not been truly sponsored by a witness.
5
             MR. BRUCE: I have no problems with it,
6 Mr. Examiner.
7
             EXAMINER MORROW: Are you through?
             MR. STOVALL: I'm through with the
8
9
  witness.
10
              MR. KELLAHIN: Have you admitted all
11 your witnesses? It will be Exhibits 18 and 19, we
  move that they be admitted at this time.
13
             EXAMINER MORROW: Okay we admit 18 and
  19 at this time.
14
15
              And Mr. Bruce now wants to recall one of
16 his witnesses.
17
                         (Exhibits 18 and 19 were
18
                         admitted into evidence.)
19
             MR. BRUCE: I would like to recall
20 Mr. Thoma.
21
                      JOHN L. THOMA,
22 was recalled as a witness and, having been
23 previously duly sworn, was examined and testified as
  follows:
25
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## EXAMINATION

BY MR. BRUCE:

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- And Mr. Thoma, I'll ask you one ο. question. Could you address the importance of structure and its effects on water production in the 6 Wolfcamp?
  - I'll make this very brief. think it's worth taking a moment to look at this. MR. KELLAHIN: Speak up John, so she can
- 10 hear you. 11
- I'm sorry. I believe that you can segregate the producing reservoirs in this field. You can say that you can't, but the fact of the 14 matter is, I've done it.

If you look at the structure map which is on top of the AF carbonate, the same structural 16 17 inclination dips and has no features that Fred has 18 shown on his structure map. And you look at --19 take the Exhibit 6, of Hanley Petroleum, and you post the water producing, or water cuts, on the 20 wells and then look to each one of these isopaks and look at where the water is structurally occurring on 23 in each one of these zones in the AG zone, 24 which is the zone productive in the 8 Number 1.

25 We're at a zero water cut.

Look at the West Corbin Number 12, and 2 the West Corbin Number 18. The 18 has a two percent 3 water cut; the 12 has a 15 percent water cut. Look 4 where we are structurally. The 8 Number 1 is 71, minus 7179. The 12 is minus 7257. The 18 is minus 7246.

1

6

7

12

13

17

22

23

We are roughly 61 feet down dip at the 18 8 and we're producing essentially water free. location that we've proposed is 21 feet down dip 10 from the 8 Number 1. Look at the AF zone. water cut in the AF, and our well untested obviously.

Go down dip and again we're looking now 14 at structures immediately on top of this carbonate. Go down dip into the 12 and you've got a 15 percent 16 oil cut. And on the AF you are 61 feet down dip.

If you look at the AE, you've got two 18 wells producing, the West Corbin 12, and the West 19 Corbin 11. The West Corbin 11 is also open in the 20 AC which I do not have an isopak of. But on the structure map the West Corbin 11 is at 7299, 200 feet down dip from the 8-1. And it's producing a 5 percent water cut.

24 If you look at the structure map, 25 Mr. Examiner, the high water cuts are coming in down

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here at 7270, 7309, 7343, and over here in 16
 2
  they're fairly high, where you're down below the
  7000 contour.
 3
              So I would contend, based on this
 4
  mapping, that your water encroachment is not a
 5
  problem anywhere in basically the north half of 17,
  the north half of 18, the entire Section 8 and
  Section 7. And from in the north. That's all I
 9
  wanted to point out.
10
              EXAMINER MORROW:
                                 Mr. Kellahin, do you
  have any questions of Mr. Thoma concerning his
11
  testimony?
12
13
              MR. KELLAHIN:
                              No.
                                 Mr. Bruce, anything
14
              EXAMINER MORROW:
15
  further?
16
              MR. BRUCE:
                           Just one final thing,
  Mr. Thoma. Santa Fe is drilling a well in
18
  Section 5, is it on that acreage officially.
19
              THE WITNESS:
                            No, we don't. I believe
20
  that if Hanley Petroleum honestly wanted to build a
21
  block out here, they could have built a block.
   Section 5, which -- this acreage here was acquired
22
   from Oxi Petroleum within the last six months.
  acreage was available, if you were doing your home
25 work.
```

1 MR. BRUCE: Thank you, Mr. Thoma. 2 THE WITNESS: Thank you 3 EXAMINATION BY MR. KELLAHIN: 5 Mr. Thoma, do you know what Hanley bid Q. 6 for the balance of the acreage in the north half of the 8, when it came up for public sale against your 8 company? 9 No, I don't, Mr. Kellahin. Α. When you look at your Well Number 12, 10 0. 11 isn't that well producing out of all the zones in the Wolfcamp and wouldn't that mask the presence or contribution of water to any of those zones? 14 No, it wouldn't. Because it's producing 15 from the AG, the AF, and the AE. If there was water 16 production from any one of those zones, you would see it. The other wells on the map that Hanley has 18 presented, they've lumped all the zones together and where they're wet, you see the water. 19 20 I'm confused your position Mr. Thoma. 21 This morning you told me that water was not a problem insofar locating Wolfcamp wells in 23 Section 8? 24 I don't believe that water is a problem 25 in this reservoir, period. I still belief that the

water we're seeing down dip is not water 2 encroachment from a water log but it's a matter of 3 the reservoir depleting, the oil depleting from the reservoir and increased friction and developments of 5 conate water being produced.

EXAMINER MORROW: Excuse me. We can 7 continue this if you'd like to. I believe you've 8 made your point to us, you don't believe this 9 structure or that water production has anything to 10 do with structure. And the other side has made 11 their point that they think it does.

6

12

15

18

22

And if you want to dwell on it some more, 13 we'll stay so long as you want to. But I think we 14 understand each side's position.

- (By Mr. Kellahin) And that was my last 16 question to you, Mr. Thoma. You and Mr. Huck have a total disagreement about water in the Wolfcamp?
- Yeah, we do. But I think that this data, the data I've provided on this montage, 20 demonstrates that there is not going to be a water problem in Section 8 and structure will not be a factor.
- 23 MR. KELLAHIN: I understand your 24 position. Thank you.
- 25 EXAMINER MORROW: Anything more in this

```
case?
 1
 2
              MR. KELLAHIN:
                              No, sir.
 3
              MR. BRUCE: I have nothing further,
  Mr. Examiner.
              EXAMINER MORROW:
                                 The cases 10211 and
 5
 6 10219 will be taken under advisement.
 7
              And we did have one more thing we needed
  to say on the record concerning Case 10241.
 9 needs to be --
10
              MR. STOVALL: Yes, in the hearing
11 yesterday we left that case open because we weren't
12 sure, we thought it maybe had to be continued for
13 one more hearing, and that is correct. That case
14 for an advertising purpose needs to be continued to
15 the next -- the first of March.
16
              EXAMINER MORROW:
                                 Adjourned.
17
              (The hearing was adjourned at 4:42 p.m.)
18
19
20
21
22
23
24
25
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STATE OF NEW MEXICO
                           )
                              SS.
  COUNTY OF SANTA FE
 3
 4
                   REPORTER'S CERTIFICATE
 5
 6
          I, GAIL D. VINSON, CCR, a Certified Court
 7 Reporter and Notary Public, DO HEREBY CERTIFY that I
 8 stenographically reported these proceedings before
 9 the Oil Conservation Division; that the foregoing is
10 a true, complete and accurate transcript of the
  proceedings of said hearing so taken and transcribed
   under my personal supervision.
12
          I FURTHER CERTIFY that I am not related to
13
14 nor employed by any of the parties hereto, and have
15 no interest in the outcome hereof.
16
          DATED at Santa Fe this 24th day of April,
17
  1991.
18
19
                                        VINSON,
                                                 CCR
20 My commission expires:
                                Certified Court Reporter
   5/14/94
                                CCR 297, Notary Public
21
22
                             I do hore be train in the an a
23
                                                  5.10211 + 1021 9
                             heard by my
2.4
                                           Examiner ,
25
                                Sil Concervation Division
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