STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 12,602

APPLICATION OF DAVID H. ARRINGTON OIL AND GAS, INC., FOR COMPULSORY POOLING, UNORTHODOX WELL LOCATIONS AND DIRECTIONAL DRILLING, LEA COUNTY, NEW MEXICO

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

February 22nd, 2001

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH,
Hearing Examiner, on Thursday, February 22nd, 2001, at the
New Mexico Energy, Minerals and Natural Resources

Department, 1220 South Saint Francis Drive, Room 102, Santa
Fe, New Mexico, Steven T. Brenner, Certified Court Reporter
No. 7 for the State of New Mexico.

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APPEARANCES

FOR THE APPLICANT:

HOLLAND & HART, L.L.P., and CAMPBELL & CARR 110 N. Guadalupe, Suite 1 P.O. Box 2208 Santa Fe, New Mexico 87504-2208 By: MICHAEL H. FELDEWERT

FOR ENERGEN RESOURCES CORPORATION:

MILLER, STRATVERT and TORGERSON, P.A. 150 Washington
Suite 300
Santa Fe, New Mexico 87501
By: J. SCOTT HALL

* * *

WHEREUPON, the following proceedings were had at 1 2 2:02 p.m.: 3 4 5 6 EXAMINER CATANACH: All right, at this time we'll 7 call Case 12,602, which is the Application of David H. 8 9 Arrington Oil and Gas, Inc., for compulsory pooling, 10 unorthodox well locations and directional drilling, Lea 11 County, New Mexico. Call for appearances in this case. 12 MR. FELDEWERT: Mr. Examiner, Michael Feldewert. 13 I'm with the law firm of Holland and Hart and Campbell and 14 15 Carr, appearing on behalf of David H. Arrington Oil and Gas, Inc. 16 MR. HALL: Mr. Examiner, Scott Hall, Santa Fe 17 office of Miller, Stratvert and Torgerson, on behalf of 18 19 Energen Resources Corporation. No witnesses this 20 afternoon. 21 EXAMINER CATANACH: Okay, any additional appearances? 22 Will the witnesses please stand to be sworn in 23 and be sworn in? 24 25 (Thereupon, the witnesses were sworn.)

6 1 DALE DOUGLAS, the witness herein, after having been first duly sworn upon 2 his oath, was examined and testified as follows: 3 4 DIRECT EXAMINATION 5 BY MR. FELDEWERT: 6 0. Mr. Douglas, would you please state your full 7 name and address for the record? Dale Douglas, Midland, Texas. 8 Mr. Douglas, by whom are you employed and in what 9 Q. 10 capacity? I'm a contract landman performing contract land 11 services for David H. Arrington Oil and Gas, Inc. 12 And have you previously testified before this 13 Q. Division? 14 15 Yes, sir, I have. A. At the time of that testimony, were your 16 17 credentials as an expert in petroleum land matters accepted and made a matter of record? 18 19 Yes, they were. Α. And are you familiar with the Application that 20 Q. 21 has been filed in this case? 22 Α. Yes, sir. And are you familiar with the status of the lands 23 Q.

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in the subject area?

Yes, sir, I am.

Α.

MR. FELDEWERT: Mr. Examiner, I would tender Mr. Douglas as an expert witness in petroleum land matters.

EXAMINER CATANACH: Mr. Douglas is so qualified.

- Q. (By Mr. Feldewert) Mr. Douglas, would you please
 Outline for the Examiner what Arrington Oil and Gas seeks
 with this Application?
- A. Yes, sir. We seek an order pooling all minerals from the surface to the base of the Mississippian formation under the west half of Section 35, Township 15 South, Range 35 East, Lea County, New Mexico, in the following manner:

The west half for all formations and/or pools developed on 320-acre spacing. We had advertised for pooling on 160-, 80- and 40-acre spacing, but that's not needed now since Arrington actually owns 100 percent of the northwest quarter, where this proposed well is located. So we would be dismissing the pooling Application for the 160s, the 80s and the 40-acre spacing.

Also an order approving an unorthodox well surface location for our proposed Disco Midge Well Number 1, to be located 1487 feet from the north line and 331 feet from the west line, in the northwest quarter, which is Unit E, of Section 35.

Also an order approving the drilling of this well in a north northeasterly direction to intersect the Strawn and Wolfcamp formations, and unorthodox locations, and a

bottomhole location in the Atoka formation at a standard location, which is 660 from the north line and 800 feet from the west line of Section 35.

- Q. Okay, why don't you identify and review for the Examiner Arrington Exhibit Number 1?
- A. Exhibit Number 1 is a land plat which identifies the lands in question. The highlighted acreage in yellow constitutes the west half of Section 35. The red dot on the map indicates the location for the Disco Midge Number 1 well.
 - Q. Is that the bottomhole location for that well?
- 12 A. Yes, it is.

- Q. Okay. Is that bottomhole location in the Atoka, is that an unorthodox location?
 - A. No, sir, it is an orthodox location in the Atoka which is, again, 800 feet from the west line and 660 from the north line.
 - Q. Okay, why don't you turn to Arrington Exhibit

 Number 2 and identify that for the Examiner, please?
 - A. This Exhibit Number 2 is a Form C-102 Application.
- Q. Okay. Does it show your bottomhole location in the Atoka?
- A. Yes, sir, it does. And the bottomhole location, again, is 1487 feet from the west line and 660 from the

north line.

- Q. Okay. Now, you indicated that you were going to be directionally drilling to intersect the Strawn and the Wolfcamp formations at an unorthodox location. Why are they unorthodox?
- A. They're unorthodox for the 80- and 40-acre spacing because they are less than 330 feet to the center line for the northwest quarter.
- Q. Are those locations unorthodox as to the outer boundary of the northwest quarter?
- A. No, sir, they're not. Their location is more than 330 feet from the west line for the 40-acre Wolfcamp spacing.
- Q. The proposed Strawn location, which pool is that in?
 - A. That's in the Undesignated West Lovington-Strawn Pool.
 - Q. Okay, and are there special pool rules for the location of those wells?
 - A. Yes, sir. Those special pool rules provide for 80-acre spacing and 330-foot setbacks from the quarter section line.
 - Q. And your proposed -- or the point at which you're going to intersect the Strawn formation is more than 330 feet from the outer boundary?

A. That is correct.

- Q. What acreage is affected by the unorthodox Strawn and Wolfcamp intersection points?
- A. The encroachment will be on the inner boundary of the northwest quarter, in which Arrington owns 100 percent of the leasehold estate.
- Q. So is there any acreage other than the 100percent acreage owned by Arrington Oil and Gas that is
 going to be affected by your unorthodox intersection point?
- A. There are no other parties affected, and it's an interior encroachment.
- Q. Okay. Now, what is the status of this acreage in the west half of Section 31?
 - A. It's fee acreage.
- Q. Why don't you identify, then, for the Examiner, Arrington Exhibit Number 3?
- A. Arrington Exhibit 3 is an ownership breakdown of the various tracts comprising the west half of Section 35.

 In the west half of the southwest quarter, the ownership for a west-half unit would be Energen, 82.2 percent;

 Arrington, 17.7 percent. In the east half of the southwest Arrington has 100 percent. In the northwest quarter

 Arrington has 100 percent.

I've broken that out as percentages and basically net acres in each of those tracts, and then I break down

the ownership in the proposed 320-acre spacing unit based upon these net acres, which would be Energen, 20.56993 percent; and Arrington, 79.43007 percent.

- Q. So is Energen the only working interest owner that's subject to this pooling Application?
 - A. That is correct.

- Q. Why don't you summarize for the Examiner the efforts you have made to obtain voluntary joinder of Energen in this project?
- A. Yes, we first contacted Energen in December of this year, and we had mailed a proposal letter to Energen on December the 18th of 2000, which they picked up on the following day. In that letter, we had proposed the drilling of this Disco Midge Number 1 well, had submitted an AFE to them as well and asked for their participation or joinder in drilling the well. In the absence of their joinder, we asked them to grant to us a term assignment.
 - Q. Have you had follow-up telephone calls with them?
- A. Yes, we have. We've probably spoken three or four different times.
- Q. And at this point, they have not committed to this project?
 - A. That is correct, they have not.
- Q. Okay. Is Arrington Exhibit Number 4 the letter that you were just speaking of reflecting attempts to

obtain their voluntary joinder? 1 2 Α. Yes, sir, it is. It has attached to it the AFE that was sent to 3 0. that letter; is that correct? 4 That is correct. And I'll point out on this 5 Α. letter which we subsequently discussed with Energen, there 6 7 was a typographical error in the township. It reads 16 south instead of 15 south. 8 You said Energen was aware of the proper township 9 Q. in this area? 10 11 Α. Yes, sir, they are. 12 Has there ever been any confusion, to your 0. 13 knowledge --A. 14 No --MR. HALL: Object, calls for hearsay. 15 (By Mr. Feldewert) Has Energen ever indicated to 16 Q. you that there was any confusion over the location of this 17 18 proposal? MR. HALL: Same objection. 19 EXAMINER CATANACH: I'll let you answer the 20 21 question. 22 THE WITNESS: No, sir. (By Mr. Feldewert) In your opinion, have you 23 Q. made a good-faith effort to obtain voluntary joinder from 24 25 Energen?

A. Yes, sir.

- Q. Why don't you refer to the AFE which is attached to Exhibit 4, that was sent with your proposed letter, and review for the Examiner the dryhole cost and the completed well cost.
- A. Okay, the AFE that's attached is the same AFE that was forwarded to Energen. The AFE was prepared on November the 9th, and the drilling, the dryhole costs for the well are estimated to be \$1,038,441. The additional cost for completion would give a total well cost of \$1,554,621.
- Q. Has Arrington Oil and Gas directionally drilled other Atoka wells?
 - A. Yes.
- Q. And have you participated in the directional drilling of other Atoka wells?
- 17 | A. Yes, sir.
 - Q. Okay. Are these drilling costs in line with what has been charged by Arrington Oil and Gas and other operators for similar wells?
 - A. Yes, sir.
 - Q. Have you made an estimate of the overhead and administrative costs while drilling this well and also while producing this well, if it is successful?
 - A. Yes, sir, we have. \$6000 a month for the

drilling cost and \$600 a month for the producing cost.

- Q. Are these overhead and administrative costs in line with what is being charged by other operators?
 - A. Yes, sir, they are.
- Q. And are they similar to the costs that other operators have been charging David Arrington Oil and Gas for overhead rates?
 - A. Yes, sir, they are.
- Q. Do you recommend that these figures be incorporated into any order that results from this hearing?
 - A. Yes, we do.
- Q. Are you familiar with the COPAS guidelines that are normally attached to joint operating agreements?
- A. Yes, sir.

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- Q. Does Arrington Oil and Gas request that the overhead figures approved by the Division be subject to the normal adjustments in those COPAS guidelines?
- 18 A. Yes, we do.
- 19 Q. Is Arrington Exhibit Number 5 an affidavit with
 20 attached letters giving notice of this hearing?
 - A. Yes, sir, it is.
- Q. Does Arrington Oil and Gas seek to be designated operator of this well?
 - A. Yes, sir.
- 25 Q. Does Arrington Oil and Gas request an expedited

1 decision in this matter? Yes, sir, we would. We have a lease that will be 2 Α. expiring in the latter part of April, April 27th of this 3 4 year. Mr. Douglas, were Exhibits 1 through 5 prepared 5 Q. by you or compiled under your direction and supervision? 6 7 Yes, sir. Α. Yes, sir. Q. 8 Mr. Examiner, at this time I 9 MR. FELDEWERT: would move admission into evidence of Arrington Exhibits 1 10 through 5. 11 EXAMINER CATANACH: Any objection? 12 13 MR. HALL: No objection. EXAMINER CATANACH: Exhibits 1 through 5 will be 14 admitted as evidence. 15 Mr. Hall? 16 17 CROSS-EXAMINATION 18 BY MR. HALL: 19 Q. Mr. Douglas, you testified that in your view you've made a good-faith effort to obtain Energen's 20 21 voluntary participation in the well; is that correct? Yes, sir. 22 Α. And is it also your view that you provided 23 Energen with a clear and unambiguous well proposal? 24 25 Α. Yes, sir, I think it is.

All right, let's look at your Exhibit 4, which is 1 Q. 2 your first proposal letter, dated December 18th, 2000. 3 Attached to that is your AFE, and it has a date of November 9th, 2000; is that correct? 4 Yes, sir. 5 Α. Can you explain why there was a delay from 6 Q. 7 November 9th to December 18th to make a proposal to Energen? 8 When we had the AFE prepared in anticipation of 9 Α. drilling the well, we were not prepared to send the AFE out 10 until we had some additional land issues to resolve. 11 And what were those land issues? 12 0. Verifying ownership. 13 Α. 14 All right. Does Arrington hold leasehold Q. interest in Township 16 South? 15 In Township 16 South? 16 Α. Yes, sir. 17 Q. Yes. 18 Α. 19 And to your knowledge, does Energen also own interest in Township 16 South? 20 Α. I have no idea. 21 And you've pointed out that the December 18th 22 Q. 23 letter contains a reference to Township 16 South, correct? 24 Α. Yes.

And if the letter was sent December 18th, you

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Q.

would agree with me, would you not, that this was just prior to the Christmas holiday, and the proposal would not likely receive any consideration until after the holidays; is that a reasonable conclusion?

- A. No, in my estimation it's not. We receive a certified letter with a well proposal, we give it immediate attention.
- Q. So some six weeks later, on February 1st, you directed your attorneys to proceed with a compulsory pooling Application, and that's evidenced by their notice letter attached to Exhibit Number 5, dated February 1st, correct?
 - A. Correct.

- Q. And the acreage identified in the February 1st letter identified by your counsel identifies the unit in Section 35, Township 15 south, correct?
- A. Correct.
 - Q. Can you explain to me, Mr. Douglas, why the actual Application filed in this case identifies a north-half unit?
 - A. There was originally a north-half unit to be posed. We elected to change -- We dismissed that. I believe it was either a dismissal or an amendment to include it to a west-half unit.
 - Q. Well, was it not the Application for a north-half

unit, the Application that was sent with the February 1st letter from your counsel?

- A. The letter I have says a west-half unit.
- Q. Yes, I'm speaking of the Application.

MR. FELDEWERT: I'm sorry, what's your question, Scott?

THE WITNESS: Of which date --

- Q. (By Mr. Hall) Isn't it true that you provided Energen with an Application that shows a north-half unit for this well?
- A. I don't recall sending one on the north half to them. Maybe initially when the -- No, they would have never received the Application. They did not own in the north-half unit.
- Q. Okay. Again, would you agree that the confusion about the unit orientation would cause Energen some problems in properly evaluating your well proposal?
- A. I don't know if it would cause confusion or not. To my knowledge, they did not own an interest in the north half. So if that unit had been proposed to them, they own no interest there to begin with. So I'm not sure the point of confusion.
- Q. Would that explain why there might have been a delayed response from Energen if, in fact, they didn't have any acreage interest in the north half?

- A. I've only spoken to them about a west-half unit.
- Q. The single AFE provided to Energen did not include a JOA, did it?
 - A. No, sir, it did not.

- Q. Was a JOA ever provided to Energen for --
- A. No, sir, they never requested one. In my letter I told them that in the event they felt like they would like to participate I would supply them with one to review.
- Q. And we're in agreement that the acreage position of Energen does not include any acreage above the 320-acre pooled units; is that correct?
- A. To my knowledge, Arrington owns all of the rights in the west half, with the exception of the west half of the southwest quarter, and the breakdown is roughly Energen 80 percent, Arrington 20 percent in that 80-acre tract.

 And I think their Strawn rights are contributed to the Strawn pool just --
 - Q. The West Lovington-Strawn Pool?
 - A. The West Lovington-Strawn Pool, correct.
- Q. So as proposed to Energen, they would have no opportunity to participate in anything other than the 320-acre units; is that correct?
 - A. That would be correct.
- Q. And the AFE provided to them shows no further breakout. It's for -- the total well cost is only for a

320-acre well, correct? 1 That's correct. 2 Α. So they would be asked to bear their share of a 3 0. 320-acre well only? 4 That is correct. 5 Α. And they were not given the opportunity to 6 Q. 7 participate in any of the shallower formations, were they? They own no rights in the shallower formations. 8 Α. MR. HALL: Okay, nothing further. 9 MR. FELDEWERT: Mr. Examiner, if I may, I just 10 11 had a couple questions. EXAMINER CATANACH: Go ahead. 12 REDIRECT EXAMINATION 13 BY MR. FELDEWERT: 14 Mr. Douglas, do you have Exhibit 4 in front of 15 Q. 16 you? 17 Yes, I do. Α. Okay, that's your December 18th, 2000, letter to 18 Q. Energen; is that right? 19 Yes, sir. 20 Α. What's the orientation of the spacing unit that's 21 Q. 22 set forth in that letter? West half of Section 35. 23 Α. Did you have telephone conversations with Energen 24 Q. after you sent this letter, before you filed your 25

21 Applications, in which you discussed your proposal? 1 2 Α. Yes. And at that time did you talk to them about a 0. 3 west-half spacing unit? 4 5 Α. Yes. Okay. The February 1st letter that is attached 6 0. 7 to Exhibit Number 5 that was sent to Energen advising them of this hearing, what spacing unit is set forth in that 8 letter? 9 The west half of Section 35. Α. 10 To your knowledge, was this case 11 Q. advertised as an application for a west-half spacing unit? 12 13 Α. Yes, I believe it was. And did you subsequently -- or did you receive at 14 Q. any time a response from Energen in response to your 15 December 18th proposal? 16 Yes, I received a phone call from Ken Gray, who's 17 Α. a landman for Energen. 18 Did you ever receive anything in writing from 19 Q. Energen in response to your December 18th letter? 20 We had several phone conversations, and then I 21 Α. 22 had received a fax of a written form of some things that he had proposed to us yesterday. 23

exhibit, Mr. Examiner, but I would like to -- I'll have it

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MR. FELDEWERT: Now, I only have one copy of this

marked as Energen Exhibit Number 12, and I will provide this copy that I have to you.

- Q. (By Mr. Feldewert) Is that the fax letter that you received from Energen?
 - A. Yes, it is.

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- Q. Why don't you read the first paragraph for the Examiner?
- A. This letter is from Kenneth Gray, District

 Landman. The first paragraph makes the statement, "To make

 sure no misunderstanding exists, we are responding to your

 letter of December 18, 2000 in writing. It assumed that

 your reference to 16 South should be 15 South."
- Q. Okay. In your conversations with Energen prior to receiving this letter, was there any indication to you that there was any confusion over which -- whether you were going to have a north-half spacing unit or a west-half spacing unit?
- A. None.
- 19 MR. FELDEWERT: Okay. That's all I have.
- 20 EXAMINATION
- 21 BY EXAMINER CATANACH:
- Q. Mr. Douglas, this well is to be directionally drilled. Is this for geologic reasons?
- 24 A. Yes.
- 25 Q. Okay, I'm not going to go into it, but I just

wanted to know, to clarify that. And you anticipate at this point that the 2 Wolfcamp will be encountered at the surface location? 3 That is correct. Α. And the Strawn will be encountered at an 5 0. unorthodox location -- Do we have that somewhere? 6 I can give it to you. It's 390 feet from the 7 Α. west line --8 9 Q. Okay. -- and 1250 feet from the north line. 10 Α. Which would be unorthodox? 11 Q. 12 Yes, it would. Α. And you would drill in a northeast direction to 13 Q. encounter the Mississippian; is that correct? 14 The Atoka-Mississippian. 15 Α. The Atoka-Mississippian. 16 Q. I might allow the geological witness to answer 17 Α. that for sure, but --18 I would hope he does. Okay, but that is proposed 19 Q. to be 660 from the north line, 1487 from the west line? 20 That's correct. 21 Α. Which would be --22 Q. It would be an orthodox location. An orthodox 23 location. 24

Okay. Now, your first letter of December 18th to

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Q.

- Energen -- When did you say you had a phone conversation 1 2 with Mr. Gray? The exact date, I don't recall. It's been, I 3 would guess, three weeks ago, was the first phone 4 conversation we had. 5 Okay. During that phone conversation, or during 6 0. 7 any phone conversations you had with Energen, was it explained to them why the well was going to be 8 directionally drilled? 9 10 Α. It was never discussed, no. 11 Q. And Mr. Douglas, do you believe that six weeks was sufficient time for Energen to evaluate this proposal? 12 13 Yes, I do. Α. 14 EXAMINER CATANACH: I have nothing further of this witness. 15 16 MR. FELDEWERT: We would like to call our next witness. 17 BILLY DON BAKER, JR., 18 19 the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows: 20 DIRECT EXAMINATION 21 22 BY MR. FELDEWERT: 23 Mr. Baker, would you please state your full name
 - STEVEN T. BRENNER, CCR

Billy Don Baker, Jr., and I live in Midland,

(505) 989-9317

and place of residence?

Α.

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1 Texas. By whom are you employed and in what capacity? 2 Q. Α. David H. Arrington Oil and Gas, and I'm his 3 4 exploration manager. Have you previously testified before this 5 Q. Division or one of its Examiners and had your credentials 6 7 as a petroleum geologist accepted and made a matter of record? 8 Yes, sir, I have, and they were. 9 Α. And are you familiar with the Application that's 10 Q. filed in this case? 11 Yes, sir, I am. 12 Α. And have you made a technical study of the area 13 Q. which is the subject of this Application? 14 Yes, sir, I have. 15 Α. 16 Q. And are you prepared to share the results of your 17 work with the Examiner? Α. Yes, sir, I am. 18 Mr. Examiner, are the witness's 19 MR. FELDEWERT: qualifications acceptable? 20 21 EXAMINER CATANACH: Any objection? MR. HALL: No objection, we stipulate. 22 The witness is so qualified. EXAMINER CATANACH: 23 (By Mr. Feldewert) Why don't you identify for 24 Q.

the Examiner the primary target for the proposed Disco

Midge Well Number 1?

- A. The primary target for the Disco Midge Well
 Number 1 will be three lower Atoka gas formations.
- Q. Okay, and turning to Arrington Exhibit Number 2, would you describe your strategy for the proposed Disco Midge Well Number 1 to the Examiner, please?
- A. Yes, sir. And Mr. Examiner, if I could also add Exhibit Number 6 to this, I'll talk about these two exhibits in conjunction with each other.

First off, Exhibit Number 2 is that C-102 form that Mr. Douglas has already referenced. It shows our surface location, being 1487 feet by 331, and ending up at a bottomhole location at 800 feet from the west line and 660 from the north line.

This one also shows approximately where the Wolfcamp will be intersected, which is our secondary target, and then were you also cross the Strawn formation, and then once again at the bottomhole location, which will be bottomholed in the Mississippian, which is a regional marker out here that sits below the Atoka-Morrow formations.

If you'll look at Exhibit Number 6, this is a well profile data sheet supplied by Baker Hughes INTEQ, which is the directional company that will be doing our directional work. We will drill a vertical hole down to a

depth of approximately 10,500 feet, which is through the Wolfcamp pay zone, which is the reason for the surface location and the directional well.

And then we will begin our curve at approximately 10,500 to 10,600. We will build angle and then kind of start heading it just a little bit to the north and east. We will cross the top of the Atoka formation about 150 feet back of actual bottomhole location. At the point we cross that we'll start trying to drop it as quickly as possible, but the design here basically shows it takes about another 150 feet to drop it, which would be at that 800-by-660 location.

And based on your geologic study of this area, how does your strategy compare to what you have seen?

A. Well, basically the geologic strategy right here is, there is some Wolfcamp production in the immediate area that does appear like it could possibly be a commercial secondary target. And for that reason, that's why we staked the well at the surface location here.

But the best optimum position to intersect the Atoka sands is located in the northwest quarter of the northwest quarter, and I'll show geology on both these two productive horizons and why we're planning on doing what we're doing.

Q. Okay, before we get there, do you contemplate a

dual completion with this well?

- A. No, sir, this well is not being designed, it's not being drilled for a dual completion, and if you'll look at the AFE, our casing design program is designed to complete it as a deep gas well with 5-1/2-inch casing. It was not designed as a dual completion.
- Q. Have you discussed your drilling strategy with Energen at any time?
 - A. Yes, sir, I have.
 - Q. When was the first discussion?
- A. Well, I had a call from Mr. Dave Cromwell, who is Energen's geologist, and I believe that's in Tuscaloosa, Alabama, and the exact time of that was either the week between Christmas and New Year or the first week in January. But Mr. Cromwell called and basically discussed, you know, what was my reasoning for doing what I was doing.

I basically told him that it was a pure subsurface deal, attempting to go for these Atoka sands. We had two wells out here that have had shows in them, which I will show in later testimony, that it was purely a subsurface well here but the reason for the reason for the surface location is, it's a direct east offset to a marginal Wolfcamp producer, and I think I can get into a little bit better position with the Wolfcamp mound and possibly make a Wolfcamp bail-out zone possibly there.

- Q. So you discussed your surface location?
- 2 A. Yes, sir.

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- Q. You discussed your directional drilling?
- A. Yes, sir.
 - Q. You discussed your bottomhole location?
- 6 A. Correct.
 - Q. Did you discuss a west-half spacing unit?
 - A. Yes, sir. And we also discussed the cost of the well. We went through the cost of the rigs, the cost of Bake INTEQ and kind of what general drilling costs out here in this area are right now.
 - Q. Okay.
 - A. And then I also discussed with him where we have had success in the Atoka and where commercial Atoka production is in the area too.
 - Q. All right, then let's turn to your geologic exhibits. Why don't you identify and explain for the Examiner Arrington Exhibit Number 7?
 - A. Okay, Mr. Examiner, Exhibit 7 is a cross-section, this is structural cross-section A-A', and this basically shows the only two deep wells in the immediate area, and it also will identify the Atoka pay sands, or what I believe to be pay sands, or the target zones that we're going for.
 - If you'll look on the left-hand side of the cross-section, you'll see a little insert right there.

There's a 15-35. You'll see where the cross-section is laid out on here.

As you move across, you'll see the Bridge Oil
Company Julia Culp Number 2. This well was drilled in 1990
as a Mississippian test. They did encounter the two Atoka
sands that I believe that could have been a productive pay
interval that took the well on down deep, produced it out,
a little bit of gas out of the Mississippian. That was
their initial test in there, which tested pretty good but
actually only made a couple thousand cubic feet of gas
before the plugged and abandoned it.

They subsequently came up to the Atoka, what I call the Brunson zone. It's actually lower Atoka "B", and then the lower Atoka Brunson is designated on the cross-section.

You show the perforated intervals right here. They perforated 12,270 to 12,277 and 12,300 to 12,308, and then 12,380 to 12,388. They acidized the zone with 2000 gallons of acid and tested a rate of 260 MCF a day on a 12/64 choke at 310 pounds, and then they set a plug and abandoned the well.

From this point, you'll notice where we had the David H. Arrington Oil and Gas Disco Midge Number 1, we anticipate being structurally low to the Bridge Julia Culp Number 2, probably approximately 50 to 60 feet, but we do

anticipate that we will encounter two to three of the sands.

And then if you move on from there, you go to the ARCO Daisy Chambers Number 1, located on the far right-hand side. This well was drilled in 1955 as a Devonian test by ARCO. They conducted no drill stem tests on the way down through the Atoka intervals.

But if you will notice, this is an old IES log with SP and resistivity. You'll see that they had three Atoka zones down there. Two of them have very good SP development in it. The resistivity character indicates that those were not wet sands. There was no test completed on these. They took it down to the Devonian, the Devonian was noncommercial. They subsequently completed back up in the Wolfcamp zone. It IP'd up to 222 barrels of oil a day. The well actually made 293,000 barrels of oil out of the Wolfcamp.

So basically what this shows is that we're going to be positioning ourselves in between these two wells.

The next exhibit that I have, Exhibit Number 8, is actually an isopach of the lower Atoka sands in here, and this is a gross interval isopach.

As you move up structurally higher towards the Julia Culp, it appears like the sand is deteriorating and thinning. And what we're hoping to do is actually move

back more down into the axis of where the sand system appears to be, more in strike with the ARCO Daisy Chambers but probably still in a little bit structurally higher advantageous position and hopefully encounter 50 feet, plus or minus, of porous Atoka sands in here.

- Q. Did either of the wells shown at A and A' ever produce from the Atoka?
 - A. Not in commercial, no, sir.
 - Q. Is there any Atoka wells nearby?
- A. The nearest Atoka wells are located over in Section 11 and Section 14 of 16-35, back down -- They're actually designated as North Shoe Bar-Atoka, which is probably three and a half miles to four miles to the southwest of us.
- Q. So if I understand this, you're moving north from your surface location to a bottomhole location in the Atoka in an effort to reach a thicker sand; is that --
 - A. Yes, sir.

- Q. Okay, why don't you identify, then, and review for the Examiner Arrington Exhibit Number 9?
- A. Okay, Arrington Exhibit Number 9 -- Let's look at 9 and 10 together, Mr. Examiner. This is the structure map, Exhibit Number 9 is the structure map on the top of the lower Wolfcamp, which is our secondary target, which is the reason for the surface location where it's at. This is

a structural picture of this lower Wolfcamp.

As you can see, it appears to just be a great big, large structural feature. The wells there in kind of that orange-ish red color are Wolfcamp producers in the area. There appears to be no particular rhyme or reason structurally as to where you may find a better one, whether it's necessarily offstructure or necessarily upstructure. But this is just a structural picture showing how the Wolfcamp lays in there.

If you'll look at Exhibit Number 10, this is an isopach of this lower Wolfcamp pay horizon here. As you can see, the Wolfcamp indicates that these are probably some type of shelf margin carbonate systems oriented in a northeast-southwest orientation. It also shows that our proposed surface location should be more in line with the thick of an apparent Wolfcamp mound that produced back to the west of us, 41,000 barrels and 94 million cubic feet of gas.

We will be structurally high by this interpretation to that well, although like I said, I don't think structure necessarily makes a difference. As a matter of fact, if you look on the structure map, there in the southwest quarter there is a well. I don't have them designated on here, but it's a BTA well. It has a minus 6428 right there.

If you'll look at the isopach interval over there, that well only produced 516 barrels of oil. So necessarily being high isn't always advantageous, but in this particular case we believe that we are going to be moving into a thick and that we are going to be in a structurally good position right here.

With reference to where the bottomhole location is at, if you'll notice on the isopach here, what I have done is, I have separated out the Daisy Chambers pod to the north, which made 294,000 barrels, from this pod to the south that made only 41,000 barrels. If my interpretation is correct, then anywhere up there in that northwest quarter will be extremely risky to encounter any type of Wolfcamp porosity up there.

Also as I move closer in that direction, if I did encounter any Wolfcamp porosity, it would probably be severely depleted by that Arco Daisy Chamber well that's made 294,000 barrels.

- Q. So in your opinion is there a standard surface location in the section that meets your geologic criteria?
 - A. Not for both, no, sir.
- Q. If you went with a standard location, do you feel that your chances of the Wolfcamp would not be very good?
 - A. They would be slim, yes, sir.
 - Q. In your opinion, does this drilling strategy

provide the best means of recovering the reserves under
this property, preventing waste and protecting correlative
rights?

- A. Yes, sir, I believe so.
- Q. Are you prepared to make a recommendation to the Examiner as to the risk penalty that should be assessed against the nonconsenting working interest?
 - A. Yes, sir, I am.

- Q. And what is that?
- A. The maximum, 200 percent.
- Q. And what's the basis for your recommendation?
- A. Well first off is that since we're not in an approximate area of Atoka production, even though I may encounter Atoka sands, that does not ensure a commercial well. I've still got an element of risk here as to porosity and permeability in the Atoka. So there's a large risk in itself.

As far as the Wolfcamp goes, being up on top of the structure, I can show where those aren't always the best wells.

And then I do have a severe depletion risk here as well.

Q. So do you believe there's a chance you could drill a well at the proposed location that would not be a commercial success, either in the Atoka or the Wolfcamp?

A. Yes, sir, I do.

- Q. Why don't you identify -- Why don't you turn to Arrington Exhibit Number 11?
 - A. Okay, sir.
 - Q. Identify and review that for the Examiner, please.
 - A. This is an authority for expenditure, an AFE, that our engineer Mr. Chuck Sledge prepared yesterday afternoon as a courtesy to Energen, basically taking out all of the costs incurred associated with the directional drilling and the drilling that would be to test and evaluate the shallower Wolfcamp formation.
- Q. Are the changes that you made to the original AFE proposed to Energen designated in any fashion?
- A. Yes, sir, I highlighted them with a star beside the changes that were made.
 - Q. Under the "Code" column?
- A. Yes, sir, under the "Code" column.
- Q. Okay, so that's an area -- So in other words, where we have a star, that's where you made changes to the original AFE?
- A. Yes, sir, this is where our engineer has made changes.
 - Q. For example, if I'm looking at the directional drilling column, there's a zero there?

- A. Yes, sir, we took out the entire cost of the directional drilling.
 - Q. And why did you do this?

- A. Basically because since we are the ones requesting to do the directional drilling for the Wolfcamp zones, it's only fair that we incur 100 percent of the cost for that.
- Q. In your discussions with Energen that you related to earlier, were they concerned about the cost of the directional drilling?
- A. At the time they were only concerned simply because of the actual cost of it. They didn't bring up the fact at that time whether they had rights or did not have rights and we did. That didn't come up in our conversation.
- Q. Did they subsequently raise concerns about the cost of the directional drilling?
 - A. Yes, sir, they have.
- Q. And is that why you prepared this Exhibit Number 20 11?
 - A. Yes, sir, it is.
 - Q. Does this AFE that's been marked as Exhibit

 Number 11 reflect what you believe to be the appropriate

 adjustments to the estimated well cost that you previously

 provided, to account for Energen's interest?

A. Yes, sir.

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- Q. Okay. And is this the AFE that you believe

 Energen should be subject to if they choose not to elect to

 -- or if they choose to either participate or not

 participate in this well?
 - A. Yes, sir. Yes, sir.
 - Q. Is this, in essence, an AFE for a vertical well?
 - A. Yes, sir, it is.

9 MR. FELDEWERT: Okay, that's all the questions I
10 have.

11 EXAMINER CATANACH: Mr. Hall?

CROSS-EXAMINATION

13 BY MR. HALL:

- Q. Mr. Baker, let me make sure I understand what Arrington is proposing. As I understand it, Arrington is absolutely precluding the possibility of the multiple completion of the well; is that correct?
- 18 A. Correct.
- Q. You mentioned that the well was not designed for a dual or multiple completion. Did you mean mechanically?
 - A. Yes, sir, mechanically.
- Q. What would prohibit that?
 - A. Well, basically, when we do a dual completion, we would be drilling an 8-3/4-inch hole and then running 7-inch casing to allow for multiple strings within the hole.

This well is being drilled as a straight 7-7/8-inch hole and 5-1/2-inch casing being run, which makes it very difficult mechanically to do a dual completion.

- Q. All right, so only in the event your three primary Atoka formation stringers are noncommercial will you recomplete back uphole; is that correct?
 - A. Yes, sir.

- Q. Let me ask you briefly about the Strawn. You've identified that as, I guess, your tertiary target; is that right?
- A. Well, actually the Strawn out in this area, simply because of the proximity of where the well is located, being the West Lovington-Strawn, you have to consider it a potential target.

But numerous geology filed by numerous companies on the West Lovington Unit subsurface control would indicate that our proposed location is not prospective in the Strawn at this point. As a matter of fact, most people use the Bridge Julia Culp as the defining northeast well for the edge of the Strawn reservoir here.

- Q. All right. So if the well is noncommercial in the Wolfcamp, your secondary objective, will you then necessarily test the Strawn?
- A. It just depends on what it looks like when we go through.

- Q. Okay. Have you done any other geologic

 evaluation of the Strawn that you could share with us?

 A. In this immediate area, no, sir. I've done an
- Q. Okay. Do you know what the contours for the Strawn in your proposed unit, would run north-south, eastwest, or can you say?
- A. Well, I think for the most part I have always agreed with the exhibits that were filed by the other companies. It's just a general northeast-sloping dip off of the main big West Lovington feature, which is located to the Southwest.
 - Q. All right.

awful lot to the south.

- A. And there's no reason to argue that position.
- Q. In the happy event you do get a Strawn commercial well, wouldn't the fact that you're proposing a location in the -- Let's see, you're in the northwest-northwest for the Strawn. Wouldn't the fact that you're proposing a location there and a laydown 80 for the Strawn there necessarily dictate that the next Strawn well be located in the southeast of the northwest, another laydown?
- A. You'd have to fit it in with how the geology fits and see, but that would be probably the next logical spot.
- Q. Would Arrington be amenable to reorienting the spacing unit for the Strawn to a standup 80?

A. Quite possibly.

- Q. Any reason why you could not at this point?
- A. Not that I know of. Is there any reason we -- Not that I know of.
- Q. Would you agree with me that the Strawn, if productive, could be more efficiently produced from the standup by a single well there?
- A. I can't really address that until -- if we were to get it and then plug the wellbore in, determine bottomhole pressure, if your reservoir study is to see exactly what the optimum way would be to produce it at this time.
- Q. All right. Getting back to your multiple completion issue. Since you're precluding the idea of a multiple completion altogether, there's been no effort made to attempt to allocate drilling and completion costs among the various depths then; is that correct?
- A. Well, yesterday what we basically did was talk about trying to allocate certain costs restricted to deep horizon for you, and that was basically the logging and the mud-logging cost and that type of stuff, right.

MR. HALL: Okay, nothing further, Mr. Examiner.

MR. FELDEWERT: Mr. Examiner, I'm afraid I neglected to have these exhibits admitted into evidence, if I may.

| 1 | Q. (By Mr. Feldewert) Were these Exhibits 6 through |
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| 2 | 11 prepared and compiled under your supervision and |
| 3 | direction? |
| 4 | A. Yes, sir, they were. |
| 5 | MR. FELDEWERT: Therefore, Mr. Examiner, I would |
| 6 | move into admission into evidence Arrington Exhibits Number |
| 7 | 6 through 11. |
| 8 | EXAMINER CATANACH: Exhibits 6 through 11 will be |
| 9 | admitted as evidence. |
| 10 | EXAMINATION |
| 11 | BY EXAMINER CATANACH: |
| 12 | Q. Mr. Baker, the costs on Exhibit Number 11, those |
| 13 | are what you plan on charging Energen for drilling this |
| 14 | well? |
| 15 | A. If they were to participate in this, that would |
| 16 | be the cost that I would guess they should be charged, yes, |
| 17 | sir. |
| 18 | Q. And even if they don't participate and you make a |
| 19 | completion in the Atoka, these will still be the costs that |
| 20 | are charged to them? |
| 21 | A. Yes, sir. |
| 22 | Q. Their share of the well costs? |
| 23 | A. Right. |
| 24 | Q. Tell me about the potential in the Mississippian. |
| 25 | Is there anything in there? |

1 A. No, sir. Well, there's always the possibility 2 for the Chester. The Chester is a marginal gas-productive horizon out here. That's what the Julia Culp produced out. 3 So I can't say that there's no potential in the 4 5 Mississippian, but to date it has been a noncommercial 6 zone. 7 It's just a very good regional marker that everyone likes to tag, because when you tag the 8 Mississippian you know you've gone through any potential 9 10 areas that have clastics in it, be it Atoka or Morrow. So that's the reason for drilling down to that 11 Q. interval? 12 13 Α. Yes, sir. Yes, sir. EXAMINER CATANACH: I believe that's all I have. 14 MR. FELDEWERT: Mr. Examiner, I think I do need 15 16 to clarify one point on the costs. 17 FURTHER EXAMINATION BY MR. FELDEWERT: 18 19 0. Mr. Baker, this Exhibit Number 11 --Yes, sir. 20 Α. 21 -- was it prepared as an adjustment to the AFE Q. that you presented to Energen back in December? 22 It was prepared yesterday as a courtesy to them 23 taking out the costs, yeah, I guess that's what you're 24 asking. 25

- Q. I had a bad question. Are the numbers that are on this AFE in Exhibit Number 11 --
 - A. Yes, sir.
 - Q. -- did you use the numbers that were on your --
- A. Yes, sir.

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- Q. -- AFE that was presented in December?
- 7 A. Yes, sir, we --
 - Q. That AFE presented in December was dated November 9th; is that correct?
- 10 A. Yes, sir, it was.
 - Q. Okay. Has there been an escalation -- Do you expect an escalation in the costs, given the time that has elapsed between November and present?
- A. Yes, sir, there's -- I think everybody is aware
 that industry costs are going up daily, so these are
 extremely conservative numbers, yes, sir.
- Q. Okay, so this is an estimate of the drilling cost; is that correct?
- 19 A. Yes, sir, it is.
 - Q. Okay, Exhibit Number 11 has an estimate, the final drilling costs Energen would be subject to would be the costs that are actually incurred. But do you intend them to be in the same proportions --
- 24 | A. Yes, sir, I do.
- 25 Q. -- as they are --

Yes, sir. Yes, sir. 1 Α. -- in Exhibit Number 11? 2 Q. Yes, sir. 3 Α. MR. FELDEWERT: Okay. 4 MR. HALL: Additional cross on 11, if I might. 5 FURTHER EXAMINATION 6 7 BY MR. HALL: Mr. Baker, the AFE Exhibit 11 is dated December 8 9th, 2000? 9 Α. Uh-huh. 10 And for the record, that's a yes? 11 Q. Yes, sir. 12 Α. This AFE was not presented to Energen until 13 Q. 14 today; is that right? Uh-huh. 15 Α. 16 Q. For the record, that's yes? Yes, sir. 17 Α. MR. HALL: Nothing further. 18 19 FURTHER EXAMINATION 20 BY EXAMINER CATANACH: 21 Wait a minute, I thought this was prepared Q. 22 yesterday. Yes, sir, it was, and I might clarify that. 23 engineer and his computer basically takes other AFEs that 24 25 he has been preparing and simply goes through and changes

| 1 | the numbers, and that's what happened here. This is a |
|----|---|
| 2 | Mayfly AFE that he simply went through and added all the |
| 3 | same costs that he had off of his November 9th one. |
| 4 | And that's why you'll also see, if you see on |
| 5 | there, the objectives, the Strawn, Atoka and the |
| 6 | Mississippian in there. This is a Mayfly AFE, which was a |
| 7 | Strawn-Atoka-Mississippian test, and that's the reason for |
| 8 | that date on there as well. |
| 9 | EXAMINER CATANACH: Okay, that's fine. |
| 10 | Anything further? |
| 11 | MR. FELDEWERT: No. |
| 12 | EXAMINER CATANACH: Would you like to make |
| 13 | statements? Mr. Hall? |
| 14 | MR. HALL: No, sir. |
| 15 | EXAMINER CATANACH: No. Mr. Feldewert? |
| 16 | MR. FELDEWERT: No, thank you. |
| 17 | EXAMINER CATANACH: Great. All right, then, |
| 18 | there being nothing further in this case, Case 12,602 will |
| 19 | be taken under advisement. |
| 20 | (Thereupon, these proceedings were concluded at |
| 21 | 2:55 p.m.) |
| 22 | * * * |
| 23 | hereby certify that the foregoing in the proceedings in |
| 24 | hereby certify that the roceedings to conclude record of the proceedings to conclude record of the proceedings to |
| 25 | heard by nie on februar 192091. |
| _ | Exeminer |

STEVEN FRENNER OF SINISION (505011 509 1931)

CERTIFICATE OF REPORTER

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

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL March 3rd, 2001.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 2002