#### 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. 12,079

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

ORIGINAL

# REPORTER'S TRANSCRIPT OF PROCEEDINGS

#### **EXAMINER HEARING**

BEFORE: DAVID R. CATANACH, Hearing Examiner

8 NOV 19 PH 2:

November 5th, 1998

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH,
Hearing Examiner, on Thursday, November 5th, 1998, at the
New Mexico Energy, Minerals and Natural Resources
Department, Porter Hall, 2040 South Pacheco, 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 DIVISION:

RAND L. CARROLL Attorney at Law Legal Counsel to the Division 2040 South Pacheco Santa Fe, New Mexico 87505

# FOR THE APPLICANT:

CAMPBELL, CARR, BERGE and SHERIDAN, P.A. Suite 1 - 110 N. Guadalupe P.O. Box 2208
Santa Fe, New Mexico 87504-2208
By: WILLIAM F. CARR

\* \* \*

1 WHEREUPON, the following proceedings were had at 2 10:29 a.m.: EXAMINER CATANACH: At this time I'll call Case, 3 12,079, the Application of David H. Arrington Oil and Gas, 4 5 Inc., for compulsory pooling, directional drilling and an unorthodox well location, Lea County, New Mexico. 6 7 Call for appearances. 8 MR. CARR: May it please the Examiner, my name is 9 William F. Carr with the Santa Fe law firm Campbell, Carr, 10 Berge and Sheridan. We represent David H. Arrington Oil and Gas, Inc., in this matter. 11 12 My witnesses are Dale Douglas and Bill Baker. would request that the record reflect that Mr. Douglas and 13 14 Mr. Baker have previously been sworn and that their 15 credentials have been accepted and made a matter of record. 16 EXAMINER CATANACH: The record shall so reflect. 17 Any other appearances in this case? 18 Okay, Mr. Carr? 19 MR. CARR: Mr. Catanach, several months ago in 20 Case 11,994, Mr. Arrington obtained an order from the Division pooling the middle laydown -- one-third laydown 21 unit in an irregular section. And since that time, 22 additional information has become available in the 23 24 reservoir. 25 And so this case and the following case, 12,080,

are cases in which Mr. Arrington is proposing to develop the southern third of this irregular section, the two standup units.

Yesterday afternoon there were discussions between Mr. Arrington and Ocean Energy concerning the development of a western unit. That is Case 12,080, and there are concerns about the appropriate well location for that spacing unit. And when that case is called, we will request that that case be continued for two weeks, to enable us to continue our negotiations with Ocean.

In the meantime, we're prepared to go forward with this case, and it is, in fact, a stand-alone case. It is a case for a standup spacing unit in the southern third of this irregular section, and by virtue of approving this, in fact, you will be superseding the previous pooling order for the laydown unit.

EXAMINER CATANACH: Okay.

#### DALE DOUGLAS,

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

#### DIRECT EXAMINATION

22 BY MR. CARR:

Q. Mr. Douglas, are you familiar with the Application filed in this case on behalf of David H.

25 | Arrington?

A. Yes, sir, I am.

- Q. And are you familiar with the status of the lands which are the subject of this Application?
  - A. Yes, sir, I am.
- Q. Could you briefly review for Mr. Catanach Mr. Arrington's prior efforts to develop this acreage? And you may want to refer to Exhibit 1 as you do this.
- A. Okay. In Case Number 11,994 we had acquired a pooling order on this irregular section. If you'll refer to Exhibit 1, Section 3, you'll notice on the first page there's the middle 320. This is a 960-acre section. The middle 320 was the tract that was pooled under that Case Number 11,994 for a Morrow test of that 320 acres.

Since that acreage was pooled, we obtained additional -- this is a fairly active area, and we obtained additional geological information that made us alter our interpretation of this area and felt like the appropriate thing to do was to reorient or dissolve that unit and have two standup 320s instead of one laydown 320 in the middle of the section.

- Q. Would you briefly review for Mr. Catanach what Mr. Arrington seeks with its Application in Case 12,079?
- A. Yes, sir, we're seeking an order pooling all the minerals from the surface to the base of the lower
  Mississippian formation under the following spacing units

in Section 3.

And if you'll look and refer to the second page of Exhibit 1, there is a plat that outlines that 320-acre tract.

The legal description for that is lots 9, 10, 15 and 16 in the southeast quarter of Section 3, which would be the 320-acre spacing.

For 160-acre spacing we would ask for the southeast quarter. There is already an existing Strawn producer in the north half of the southeast quarter, and that well was drilled and is operated by Amerind, and it was drilled subject to a pooling order, R-10,791. That well is still producing, so therefore we're not asking for any pooling on that 80-acre tract.

And then we're asking for the northeast of the southeast quarter, which is the drillsite 40, for all 40-acre spacing, which would be lying below the base of the Strawn formation.

- Q. Now, as we go through this case, Amerind has not been named as a party subject to pooling, have they?
  - A. That's correct.
- Q. And you are negotiating with them a voluntary agreement for the development of this spacing unit?
  - A. That is correct.
  - Q. The pool units which you've just described, to

what well are they going to be dedicated?

- A. Be dedicated to the Arrington Parachute Adams
  Well Number 1. It's to be directionally drilled from a
  surface location of 1859 feet from the south line and 777
  feet from the east line, which is Unit I, to an unorthodox
  bottomhole location of 1450 feet from the south line and
  990 feet from the east line of Section 3.
- Q. Now, let's finish up with our Exhibit Number 1. Would you just review what it shows? And let's stay with this second page.
- A. Okay. The second page again shows the 320-acre spacing unit, and there -- Since the unorthodox bottomhole well location will be encroaching upon the south line of that 320 acres, the offset operator to the south is Yates Petroleum Corporation, and they are the party which will be encroached upon.
- Q. Are they the only party that -- affected party by the unorthodox bottomhole location?
- 19 A. Yes, sir, they are.
  - Q. What is the primary objective in the proposed well?
    - A. The lower Mississippian.
  - Q. Can you identify what has been marked as Arrington Exhibit Number 2 and review that for Mr.
- 25 | Catanach?

- A. Arrington Exhibit Number 2 is a breakdown of ownership as to the various tracts which will be making up this 320-acre tract. There are several depth restrictions as to ownership in here, so what this exhibit attempts to do is to break down each specific tract that has different ownership. And we have done that to show each party's leasehold interest and, if there are unleased minerals, that party's unleased mineral interest.
- Q. Mr. Douglas, when we go to the last page of Exhibit Number 2, you have set out there the percentage of the working interest that has been voluntarily committed to this proposed well in each of the subject spacing units; is that right?
  - A. Yes, sir, that is correct.
- Q. So if we look at a 320-acre spacing unit, at this point in time you have 62.17445 percent committed to the well?
- 18 A. That is correct.

- 19 Q. Do these figures include the interest of Amerind?
- 20 A. No, sir, they do not.
  - Q. And so if Amerind and Arrington reach a voluntary agreement, these numbers will increase?
- A. Yes, sir.
- Q. Let's go now to Exhibit Number 3, your AFE. I'd ask you to review the totals on that exhibit for the

Examiner.

- A. This is the AFE for the Parachute Adams well.

  The dryhole costs for drilling this well have been estimated to be, \$668,750. Additional costs for completion would be \$358,210, which would give us a total well cost of \$1,026,960.
- Q. Are these costs in line with what's charged by other operators from similar wells in this area?
  - A. Yes, sir, they are.
- Q. Could you summarize for Mr. Catanach the efforts made by Arrington to obtain the voluntary joinder of all working interest owners in the proposed spacing units?
- A. Yes, sir. Initially, this area was started back in -- We started our work in this area in September of 1997 for the purposes of putting the original laydown 320-acre unit together.

We had acquired voluntary participation in this unit from all parties, with the exception of one party, one unleased mineral interest owner. And we had then received the order pooling that interest.

Subsequent to receiving that pooling and the additional geological information, we then did additional - started doing our additional land work in this area to determine ownership in the other tracts which would be affected if we re-oriented the units.

We've made efforts to contact and have, indeed, contacted all record owners, or all owner of record, being leasehold owners and mineral owners. We've followed those, we've mailed proposals to all of those parties, asking for their participation in the well or, in lieu of participating in the well, to reach some sort of an agreement for an oil and gas lease or an assignment.

On the parties that we did not hear back from, we followed those up with additional letters and additional personal phone calls. We talked to several of the parties. There are some small mineral owners in here. Basically, the response is, they will react to the order. So we were unable to get them to voluntarily commit to the drilling of this well.

I have also attached a chronology of the breakdown of our efforts to locate all these people. start off with the --

- Q. Are you referring now to what's been marked as Arrington Exhibit 4?
  - Α. Yes, sir, I am.
- 21 Q. Okay.

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22 Α. That chronology breaks down, generally, the 23 efforts we have gone to, to obtain voluntary joinder from all these people.

And I have also attached to that the chronology

which set forth what we had done on the original order for the laydown 320.

- Q. So when we look at the chronology, the top page is what has been done by you for Mr. Arrington since you decided to reorient the spacing unit?
  - A. That is correct.

- Q. And then behind that you have a chronology which reviews efforts that date back to September of 1997 to develop the interest in Section 3?
  - A. That is correct.
- Q. Is Exhibit Number 4 [sic] an affidavit with attached letters and return receipts confirming that notice of this Application has been provided in accordance with OCD rules?
- A. Yes, sir, it is.
- Q. Have you made an estimate of the overhead and administrative costs to be incurred while drilling the will and also while producing it if, in fact, it is successful?
- A. Yes, sir, the drilling rate we've utilized is \$6000, and a producing monthly rate of \$600.
  - Q. And what is the source of those numbers?
- A. The primary source of these numbers is from the Ernst and Young survey.
- Q. And are these costs in line with what's being charged by other operators in this area?

1 Α. Yes, sir, they are. Do you recommend that these figures be 2 Q. incorporated into the order which results from this 3 hearing? 4 Yes, sir, I do. 5 Α. Were Exhibits 1 through 5 prepared by you or 6 Q. 7 compiled under your direction? 8 Α. Yes, sir. 9 MR. CARR: At this time, Mr. Catanach, we would 10 move the admission into evidence of Arrington Exhibits 1 11 through 5. EXAMINER CATANACH: Exhibits 1 through 5 will be 12 admitted as evidence. 13 14 MR. CARR: That concludes my direct examination of Mr. Douglas. 15 16 EXAMINATION 17 BY EXAMINER CATANACH: 18 As I understand it, Mr. Douglas, you've not 19 attempting to pool the -- an 80-acre unit? 20 That is correct. Α. 21 0. But you are -- You do see the 320, a 160 and a 22 40? 23 That's correct. Α. 24 Q. Okay. Now, these would all be from the surface

to the base of the lower Mississippian, in all three of

those units?

A. No, sir, on the 320 acres, if you'll refer to the Exhibit 2, there is varying ownership as to depth, and some of which -- There are some producing wells in this 320 right now, so some of those depths are contributed to the spacing units for those wells.

For example, the Amerind Strawn well in the north half of the southeast quarter is pooled from the surface to the base of the Strawn, so -- which is the reason we're not seeking an order pooling that interest. It's already contributed to that unit.

If you'll go up to Lot Number 10, there are two wells in there. There is a Wolfcamp well, for example, that Bruno operates, which is holding a 40-acre tract, so we're not asking for the pooling of the zones from the surface in that tract either. But the breakdown that I have specifically describes each tract and the ownership as to each of those tracts.

MR. CARR: Mr. Catanach, may I ask a question?

EXAMINER CATANACH: Yes.

MR. CARR: Mr. Douglas, in terms of an order resulting from this hearing, if it pooled 40-acre tracts, 160-acre tracts and 320-acre tracts below the base of the Strawn, would that satisfy Arrington's purpose?

THE WITNESS: Yes, it would.

MR. CARR: That's all I have. 1 EXAMINER CATANACH: So the order that we need to 2 3 issue, Mr. Carr, would be from the base of the Strawn --4 MR. CARR: Yes. EXAMINER CATANACH: -- to the base of the lower 5 6 Mississippian? 7 MR. CARR: Yes, sir, that would take care of 8 this. (By Examiner Catanach) Mr. Douglas, when did you 9 ο. undertake the effort to contact these interest owners with 10 11 regards to drilling the east half? 12 Α. For this Adams well, it was in September -- it 13 should be on my chronology -- September the 25th. 14 Q. That was your first contact with these interest owners? 15 16 Yes, sir, for the ones that we had not already 17 reached agreement with for the original pooling. parties that we needed to contact were the ones that owned 18 19 interest in the southeast quarter. 20 Q. The interest owners you had already agreed to on 21 the previous orientation, you didn't need to attempt to 22 reach an agreement with those again? 23 Α. No, sir. 24 Q. Had you leased those interests? 25 Α. We had subsequently leased those interests, or

acquired assignments of the leasehold estate from the parties.

- Q. And it didn't matter -- As far as that lease agreement was concerned, it didn't matter, the orientation of the spacing unit?
- A. No, sir. Contractually, our agreement allows us to do what we wish with the acreage.
- Q. Okay. So the only interest owners pending were the ones in the southeast quarter of that section?
- A. That's correct. And actually, in that southeast quarter, Arrington controls the southwest of the southeast, so the affected interests are actually the 120 acres comprising the rest of that southeast quarter.
- Q. Okay. And those interest owners were contacted on the 25th of September?
- 16 A. Yes, sir.

- Q. Do you have a letter in here that reflects that first contact?
- A. Yes, sir, there is -- Exhibit Number 4, I have attached a chronology listing the dates, and then also attached to that are copies of the various letters and correspondence that we've sent out.
- Q. Okay. It appears all the letters I have are dated September 28th.
  - A. Well, the letters were dated the 28th. Initial

contact on phone calls started on the 25th.

Q. Okay.

- A. And the first contact was Amerind, because they had the one well in that 120-acre tract, which was the primary effort to control.
- Q. Are all of these letters that you've got listed here, these are all the same correspondence?
- A. There are a set of letters included which were sent out by a contract lease broker that we had acquired, or hired to locate and attempt to make agreements with the unleased mineral owners.

And then the other letters are all letters that were mailed out under certified mail, asking for participation or some sort of voluntary agreement.

- Q. So how many interest owners are we dealing with in this -- that you're trying to secure the agreement from?
- A. That we don't already have agreement with, there are 11 mineral owners. And as you can tell from our -- part of our problem with reaching agreement on the majority of these people, certain ones have said that they'll respond to the order when it's issued. Others have said their interest is too small and they're -- They didn't even care to visit further with us about it.
- Q. So the biggest interest that's not consolidated is Amerind's?

A. Yes, sir.

- Q. How much is that?
- A. They own the majority of that 120 acres in the southeast quarter. That would increase our participation to under -- a voluntary participation for the 320 acres, they control roughly 30 percent of that.

An agreement with Amerind would give us a voluntary participation of 92 percent for the 320-acre tract, 89 percent for the 160-acre tract, and 94 percent under the 40-acre tract. And those remaining percentages are unleased mineral owners.

- Q. Okay. Do you anticipate reaching an agreement with Amerind?
- A. Yes, sir, we do.
  - Q. And the other interest owners, there's no other chance to probably secure them?
  - A. There is a possibility. We've received letters from two parties asking for copies of our proposed operating agreement, but no indication that -- there are no -- They have not signed an AFE or an agreement. And they have been furnished with operating agreements.
  - Q. Okay. Offset notification, as far as the location is concerned, was provided to the interest owners in the north half of Section 10; is that right?
    - A. It's the northeast quarter of Section 10.

Q. Northeast quarter of Section 10. 1 Which is Yates Petroleum. Α. 2 Is there a well in that north half, do you know? 3 Q. Of Section 10? It's not the Mississippian? 4 Α. 5 MR. BAKER: No, sir. There's an Atoka well, Mr. Catanach, in the southeast quarter -- southwest quarter of 6 7 the northeast quarter. I'll show that on my geological 8 exhibit. 9 0. (By Examiner Catanach) Okay. Do you know what 10 the interest ownership is in within the northwest quarter 11 of Section 10? Northwest of 10? No, sir, I do not. I believe 12 Α. 13 that that particular zone, or the Atoka zone, is -- is that 14 contributed to that well in the south half? 15 MR. BAKER: In the south half of what? 16 THE WITNESS: Of 10. 17 MR. BAKER: Of when? THE WITNESS: Of Section 10. 18 19 MR. BAKER: The south half of Section 10? 20 MR. CARR: You need to --EXAMINER CATANACH: Can we -- Why don't we just 21 22 pursue this with the next witness? 23 THE WITNESS: Oh, I'm sorry. 24 Q. (By Examiner Catanach) But you did not provide 25 notice to anybody with -- in the northwest quarter of

#### Section 10? 1 2 Α. No, sir. 3 Just the northeast quarter? 0. That's correct. 4 Α. 5 0. Okay. And that was Yates Petroleum --Yes, sir. 6 Α. 7 -- owns the entire quarter section? Q. 8 Α. They're the operator, yes, sir. 9 EXAMINER CATANACH: They're the operator, okay. 10 I believe that's all I have of this witness. 11 MR. CARR: At this time, Mr. Catanach, we call Bill Baker. 12 13 BILL D. BAKER, JR., 14 the witness herein, after having been first duly sworn upon 15 his oath, was examined and testified as follows: 16 DIRECT EXAMINATION BY MR. CARR: 17 18 Q. Mr. Baker, are you familiar with the Application filed in this case? 19 20 Α. Yes, sir, I am. 21 Q. And have you made a geological study of the area 22 which is the subject of the Application? 23 Α. Yes, sir, I have. 24 Are you prepared to share the results of that Q. 25 study with the Examiner?

- A. Yes, sir, I am.
- Q. Let's go to what has been marked as Arrington Exhibit Number 6, your isopach map.
  - A. Okay.

- Q. Would you review that for Mr. Catanach?
- A. Yes. And Mr. Catanach, if it's all right, I'd like to back up and give a little bit of history, some of the wells in this area and what has kind of taken place over the last nine months, which has also prompted us to change its unit orientation. And it will explain a little bit about some of those wells in Section 10.

Originally on this particular area, we were interpreting the Brunson Atoka sands to be north-south trending distributary channel systems. And at the time that we originally proposed the original Number 1 Parachute Hopper with that laydown 320 that we had talked about, the one producing well out in this area that had sustained production was the Yates Petroleum Brunson State Number 1.

If you'll look on your exhibit, that is the gas well located in the southwest quarter of the northeast quarter of Section 10. That particular well right there is the well that kind of sparked the interest in this area. And like I said, at that particular time I had this interpreted as two different particular channel systems.

Subsequent to that well being drilled, Ocean

Energy drilled a well, being the Carlisle well in the northeast quarter of the southwest quarter of Section 10. At this particular time, that well is still being held confidential. It's our understanding that it's producing from a zone that is not in the Atoka Brunson interval but a lower interval, possibly a Morrow or a Mississippian interval. It was reported that it did have a drilling break in the Atoka Brunson interval.

Subsequent to that, Yates Petroleum drilled the Big Flat well, which is located in the northwest quarter of the southeast quarter of Section 10. To date there's no log released on that particular well, but it's my understanding it is producing from the Brunson interval.

Also with that, Yates Petroleum drilled two wells over in Section 11. They actually re-entered a well, being the Shell Lusk well, which is in the southeast quarter of the northwest quarter of Section 11, and completed a well there in the Brunson interval.

And most recently, they drilled a well in the northwest quarter of the southeast quarter of Section 11, the Runnels well, which is also completed in the Brunson Atoka interval.

It was because of these particular wells and all this activity in here that prompted me to reinterpret my original maps from being two particular distributary

systems to what appears to be one.

Also what prompted that is some information we received on the pressure information, indicating that the Yates Brunson well might possibly be in communication with the Shell Lusk well located there in Section 11. If that pressure information is valid, then it's definitely that there are not two systems here; there's one larger system. And at that particular time we felt like we probably need to protect our rights in the southeast quarter there of Section 3.

Part of the risk of this particular well is, if you'll also notice in Section 3, there are three wells that penetrated through the Brunson interval, and all three of those wells -- which are kind of highlighted there in pink -- did not encounter any Brunson Atoka interval.

Therefore, as to the western edge of that sand pinchout, it's somewhat unknown.

But with the reported drilling break that was encountered in that Carlisle well down there in the southeast quarter -- southwest quarter, excuse me, of 10, it does appear like there might be a second lobe developing within the system.

And it is because of these reasons here that we felt that we needed to reorient the unit and drill two standups on that.

And that's pretty much what this particular map 1 2 indicates here. This is a net interval isopach of the area 3 and shows our proposed location for the Adams there, and 4 that is a bottomhole location of 1450 by 990 from the east, and we'll get into that directional in just a little bit. 5 EXAMINER CATANACH: Let me ask you just a couple 6 7 of questions. Yes, sir. THE WITNESS: 8 9 EXAMINATION 10 BY EXAMINER CATANACH: The primary target, then, is the Atoka interval? 11 0. 12 Α. Yes, sir, the primary Atoka [sic] is this Atoka 13 Brunson interval, yes, sir. Okay. And the well in the northeast of Section 14 Q. 15 10, that is a well that is currently producing from that interval? 16 Correct, yes, sir. 17 Α. And that is a -- Do you know if that's an east-18 Q. 19 half dedication on that well? 20 Α. It is my understanding that it was originally 21 dedicated as an east-half well, and it is also my

A. It is my understanding that it was originally dedicated as an east-half well, and it is also my understanding that Yates Petroleum is proposed to possibly come to the OCD for simultaneous dedication. They are not producing those two wells currently at the same time. It is my understanding that they produce one for a while and

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the another one for a while.

- Q. I'm sorry, which other well are you talking about?
- A. That would be the Big Flat well located there in the northwest quarter of the southeast quarter where it has no log available, NLA, directly south of that Brunson well.
  - Q. Okay.
- A. But it's my understanding the original Brunson well was dedicated to an east-half unit.
- Q. Okay. Do you know -- And also the well in Section 11, the -- I believe that's another Yates well?
- A. Yes, sir, both those two wells are there, and I know that is an east-half well -- or, excuse me, a west-half well, for the Shell Lusk well, which is that one up there in the northwest quarter. And then it's an east-half well for the Runnels well.
  - Q. Okay, both of those are Yates?
  - A. Yes, sir, they are.
- 19 Q. Okay.
- 20 A. Yes, sir.
- 21 | Q. All right.
  - A. Also, this map indicates that Yates has proposed a well there in Section 2. If you'll see where it shows the location, that is the Yates Petroleum location right there as well.

26 1 Q. Okay. 2 Α. Okay? 3 DIRECT EXAMINATION (Resumed) BY MR. CARR: 4 All right, let's go to Exhibit Number 7, the 5 Q. structure map, and I'd ask you to review this and 6 7 particularly focus on your bottomhole location. Α. Mr. Catanach, this is a structure map on 8 Okay. 9 the top of the Morrow section, which is the regional 10 structural marker that directly underlies the Atoka Brunson 11 interval, and this is also the principal -- will be the 12 principal reason for asking for an unorthodox location. 13 It is evidenced by subsurface well control, as 14 well as some 2-D seismic in this particular area, that the 15 Morrow section is highly faulted. There's a lot of faults 16 throughout this area. And we have a nonproprietary 2-D 17 seismic line that indicates that at our legal location we 18 would stand a strong possibility of encountering a fault 19 and possibly faulting out our interval. As you notice, we have proposed the well 200 feet 20 south of that. 21 This would give me a little bit of latitude 22 as far as risk associated with that particular fault.

this is the principal reason for the unorthodox location.

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The map simply shows a couple of structural eastplunging noses, just kind of regional dip to the east.

Q. Let's go to the next exhibit, Exhibit Number 8. Identify this first and then explain what is shown.

A. Okay, Exhibit Number 8 is a topographic land survey sketch of where we have our surface location currently located at with respect to several wells in the area, as well as a lease road and an existing highline.

Part of the reason for the directional well here is because of cultural problems. It's all because of cultural problems. You see the surface location staked here, and it is 777 feet from the east line and 1859 from the south line. You also see where our bottomhole location would fall. We will be 15 feet from an existing lease road, and we would be almost directly underneath a power line.

So for cultural reasons, that is the reason for an approximate 461-foot directional kick.

- Q. All right, let's go to Exhibit 9, and what is this?
- A. Exhibit 9 is a topo map. And I apologize for not having the wells colored in here, but if you'll look, Mr. Catanach, there in Section 3, you'll see two dots around Number 402 [sic] there. It shows our surface location and then the bottomhole location as well. And once again, this pretty well shows that you're going to be right on a road.
  - Q. If you drilled a straight hole at this location

you, in fact, would be on the road and under the power line?

- A. Yes, sir, we'd be 15 feet off of it, yes, sir.
- Q. Are you prepared to make a recommendation to the Examiner concerning the risk that should be assessed against any interest owner who isn't voluntarily participating in this well?
  - A. Yes, sir, I am.

- Q. And what is that?
- A. That would be cost plus 200 percent.
- Q. And just briefly summarize upon what you base this recommendation.
  - A. Well, it's pretty much twofold, but obviously the structural risk here with the faults, there's a very high probability if we encountered that fault that we could fault the zone out.

And then if you want to go to the isopach, because there are no wells in Section 3 that have encountered any of the Brunson sand, although my isopach indicates what I hope to happen, we do not know where that pinchout is located.

So there is still a very strong element of sand risk in the Atoka channel system.

Q. And it is possible that a well at this location might not be a commercial success?

- 29 Yes, sir, there's -- there is. 1 Α. 2 Does David H. Arrington Oil and Gas, Inc., seek Q. to be designated operator of the proposed well? 3 Yes, sir, we do. Α. 4 5 0. In your opinion, will the granting of this Application and the drilling of the well as proposed be in 6 7 the best interest of conservation, the prevention of waste 8 and the protection of correlative rights? Yes, sir, it will. 9 Α. 10 Were Arrington Exhibits 6 through 9 prepared by Q. you or compiled under your direction? 11 12 Α. Yes, they were. 13 MR. CARR: Mr. Catanach, at this time we would 14 move the admission into evidence of David H. Arrington 15 Exhibits 6 through 9. 16 EXAMINER CATANACH: Exhibits 6 through 9 will be admitted as evidence. 17 18 MR. CARR: That concludes my direct examination 19 of Mr. Baker.
- 20 EXAMINATION
- 21 BY EXAMINER CATANACH:

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- Q. Mr. Baker, there's just no way that a vertical well can be drilled to meet the surface and geologic restrictions in this area?
- 25 A. Not at what we consider to be, you know, probably

the best location. You could move around up there by the legal location, but you'd still be fairly close to where we think that fault would be. And so we feel like, you know, 200 feet is about as little as we could give up, yes, sir.

- Q. And that fault in the Morrow, that would affect your Strawn?
- A. Since -- Yes, sir. See, that Morrow zone is 50 feet below our zone, and if you were to cut that -- and that's a 100-foot fault -- you would essentially fault out your sand. And what I'd like to do is just give myself an opportunity not even to have to mess with it.
- Q. What data have you used to determine the location of that fault?
- A. Just this -- This particular is just seismic data right here. Yes, sir, there's no subsurface control right there around that location that -- substantiate, other than this 2-D seismic.
  - O. 2-D seismic?

- A. Yes, sir, 2-D seismic.
- Q. Is this well actually going to be drilled to the lower Mississippian, Mr. Baker?
- A. Yes, sir, it is our belief now, with what has happened down in the Ocean well that -- It is our opinion we should take every well to the lower Mississippian interval. You should tag that as a marker. So yes, sir.

- Q. I'm sorry, what's happening with the Ocean well?
- A. Well, because we don't know exactly where that Ocean well is producing from, but we know it's somewhere below the Brunson interval, we feel like that we need to go all the way through to the Mississippian, to look at anything that might be happening.
  - Q. Is there Morrow potential?

- A. With the subsurface well control that is in the area, I would say no, sir. Generally speaking out in here, the Morrow sandstones are eroded off and not deposited. That's not to say that if you drilled in a graben system you might have some debris, eroded debris, that would be classified Morrow down in there.
  - Q. Is this all fee acreage?
- A. With the exception of our 40-acre -- which would be the southwest of the southeast, I believe that -- Is that a state tract, or is that fee, Dale?

MR. CARR: You need to talk to the Examiner.

THE WITNESS: I believe it is, yes, sir.

EXAMINER CATANACH: That's all right, don't worry about it.

- Q. (By Examiner Catanach) That bottomhole location would put you right on that road, and right near that electric line?
  - A. Yes, sir, it would put us right underneath it.

Q. Okay, so the location you're proposing to drill from, that's the closest location that you can get to that bottomhole location?

A. According to our engineer who surveyed it out there, in order to build our pad, yes, sir, it is. And that's so that we will have plenty of room not to fall into the pits of these old wells that you see, abandoned wells, around.

If we moved towards those, then we started getting into pit problems from those old abandoned pits. So our engineer felt that that was the best surface location for building his pad.

- Q. Okay. And your directional-drilling plans are to encounter that -- Is it the Strawn? I mean, I'm sorry, the Atoka interval, at that bottomhole location?
- A. No, sir, it's to bottomhole the well at that particular location.
  - Q. That's the Mississippian?
- A. Yes, sir. The actual cutting of the Atoka interval should occur about a hundred feet north of there, which would be about 1550, is where we would be.
- Q. Okay. So that's actually a little less unorthodox?
- A. As far as cutting the Atoka Brunson interval, yes, sir.

1	EXAMINER CATANACH: Okay. I have nothing
2	further, Mr. Carr.
3	MR. CARR: That concludes our presentation in
4	this case.
5	EXAMINER CATANACH: Okay, there being nothing
6	further in this case, Case 12,079 will be taken under
7	advisement.
8	(Thereupon, these proceedings were concluded at
9	11:10.m.)
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14	I do have also could be the formation to
15	I do hereby certify that the foregoing is  a complete record of the proceedings in the Examiner hearing of Case No. 2019
16	neard by me on 1997
17	Off Conservation Division
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#### 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 November 9th, 1998.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 2002