1	NEW MEXICO OIL CONSERVATION DIVISION
2	STATE OF NEW MEXICO
3	CONSOLIDATED CASES 10535, 10536,
4	10537, AND 10538
5	
6	APPLICATIONS OF AMERICAN HUNTER EXPLORATION, LIMITED:
7	
	CASE NOS. 10535 AND 10536:
8	For an unorthodox oil well location,
	Rio Arriba County, New Mexico.
9	
	<u>CASE NO. 10537</u> :
LO	For directional drilling, an unorthodox
Ì	bottomhole oil well location, and a
11	nonstandard oil proration unit,
	Rio Arriba County, New Mexico.
12	
	CASE NO. 10538:
L 3	For an unorthodox oil well location
	and a nonstandard oil proration unit,
4	Rio Arriba County, New Mexico.
. 5	
۱6	BEFORE DAVID R. CATANACH
	Hearing Examiner
17	State Land Office Building
	August 20, 1992
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21	REPORTED BY:
	DEDDIE VECMAI
2.2	DEBBIE VESTAL
	Certified Shorthand Reporter
23	for the State of New Mexico
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## **ORIGINAL**

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I N D E X		
F	age :	Number
Appearances		2
WITNESSES FOR THE APPLICANT:		
1. JAMES C. LISTER		
Examination by Mr. Carr		7
Examination by Examiner Catan	ach	37
Examination by Mr. Stovall		4 1
Certificate of Reporter		4 5
	Appearances  WITNESSES FOR THE APPLICANT:  1. JAMES C. LISTER  Examination by Mr. Carr  Examination by Examiner Catar  Examination by Mr. Stovall	Appearances  WITNESSES FOR THE APPLICANT:  1. JAMES C. LISTER  Examination by Mr. Carr  Examination by Examiner Catanach  Examination by Mr. Stovall

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7	Exhibit	No.	4										1	2	
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1 EXAMINER CATANACH: Call the hearing back to order. At this time we'll call Case 2 3 10535; right? MR. STOVALL: Are you sure? 4 EXAMINER CATANACH: I think. 5 MR. STOVALL: Application of American 6 Hunter Exploration, Limited, for an unorthodox 7 8 oil well location, Rio Arriba County, New Mexico. 9 10 MR. CATANACH: Are there appearances in this case? 11 12 MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law 13 firm, Campbell, Carr, Berge & Sheridan. We 14 represent American Hunter Exploration, Limited. 15 And I have one witness. 16 17 At this time I would request that this case be consolidated with the following three 18 19 cases, 10536, 537, and 538. They all involve unorthodox well locations. They're all in the 20 21 same area. And the testimony is similar and also 22 overlaps to some extent. 23 EXAMINER CATANACH: Okay. Mr. Stovall, 24 would you, please, call Cases 10536, 537, and 25 538.

1 MR. STOVALL: Application of American Hunter Exploration, Limited, for an unorthodox 2 3 oil well location, Rio Arriba County, New Mexico. Application of American Hunter 5 Exploration, Limited, for directional drilling, 6 an unorthodox bottomhole oil well location, and a 7 nonstandard oil proration unit, Rio Arriba 8 County, New Mexico. 9 And application of American Hunter 10 Exploration, Limited, for an unorthodox oil well 1 1 12 location and nonstandard oil proration unit, Rio 13 Arriba County, New Mexico. EXAMINER CATANACH: 14 Are there additional appearances in any of these cases? 15 MR. STOVALL: Sounds like what the 16 17 music world calls variations on a theme. EXAMINER CATANACH: 18 19 MR. CARR: Would you like to swear the 20 witness? EXAMINER CATANACH: Yes, we should do 21 22 that. JAMES C. LISTER 23 Having been duly sworn upon his oath, was 24 examined and testified as follows: 25

## EXAMINATION 1 2 BY MR. CARR: 3 Q. Would you state your full name for the record, please. 4 5 Α. James C. Lister. 6 Q. Where do you reside? 7 Α. Evergreen, Colorado. 8 By whom are you employed? Q. 9 Α. American Hunter Exploration. 10 Q. And in what capacity? Senior exploration geologist. 11 Α. 12 Q. Mr. Lister, have you previously testified before this Division? 13 14 Α. Yes, I have. 15 Q. At the time of that testimony, were 16 your credentials as a petroleum geologist 17 accepted and made a matter of record? 18 Yes, they were. Α. Are you familiar with each of the 19 Q. applications filed in these consolidated cases? 20 21 Α. Yes, I am. 22 Are you familiar with the proposed Q. wells in each case? 23 24 Α. Yes, I am. MR. CARR: Are the witness' 25

qualifications acceptable? 1 2 EXAMINER CATANACH: Yes, they are. 3 Q. (BY MR. CARR) Would you briefly state what American Hunter seeks with these, in each of 4 5 these applications? 6 Basically we're seeking approval for 7 unorthodox surface locations for four wells in 8 Township 27 North, Ranges 1 and 2 West. 9 Q. And how many wells are involved? Α. Four. 10 One of the wells involved is an 1 1 Ο. 12 application for directional drilling. 13 American Hunter desire to still directionally 14 drill one of these wells, or would they all be straight holes at this time? 15 At this time all of these wells 16 Α. No. will be straight holes. 17 18 Could you refer to what has been marked as American Hunter Exhibit No. 1, identify that, 19 and review it for Mr. Catanach? 20 21 Α. All right. Exhibit No. 1 is a regional 22 plat showing pool boundaries in the proposed well

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locations.

boundary. In the southwest portion of the map in

is the West Puerto Chiquito Mancos Pool

In blue on the east side of the map

orange is the Gaviland-Mancos Pool boundary.

And additionally I have shown in green on the map lines representing one mile of distance from each of those two pool boundaries. And then finally the four subject wells' surface locations are shown on the map.

Q. Let's move to what has been marked Exhibit 2. This exhibit consists of four or five sheets of paper that relate to the requested unorthodox location in Case 10535.

And if you'd like to just approve the application, we can dispense with this.

EXAMINER CATANACH: No. Go ahead, by all means.

- Q. (BY MR. CARR) We are on Exhibit 2. Could you identify Exhibit 2, please?
- A. Okay. Exhibit 2 is an acreage plat for the proposed well, the Jicarilla 2-A-1 in Section 2 of 27 North, Range 2 West. The acreage plat shows the proposed location 1000 feet from the north line and 1300 feet from the east line. And additionally it shows that this section is a standard section composed of 640 acres.
- Q. Mr. Lister, what rules govern the development of this acreage?

- A. Well, this particular well lies greater than a mile from any existing pool boundary, and it, as such, is subject to the statewide rules for wildcat oil wells, which is 40-acre spacing and 330 setbacks for this area.
- Q. So this well is actually too close to which of the boundaries of this acreage?
- A. The location would be encroaching 20 feet farther than the minimum to the west and 320 feet closer than the minimum to the south of the 40-acre section spacing.
- Q. Who offsets this property to the south and the west?
  - A. The Jicarilla Tribe and American Hunter, joint venture acreage.
  - Q. So what you're proposing is to dedicate a standard 40-acre spacing unit and you're encroaching only on the properties which you operate pursuant to the joint venture agreement?
    - A. That's correct.

- Q. All right. Let's go to the next page in Exhibit No. 2. Would you identify this for Mr. Catanach and then review it?
- A. Okay. The next page is a topographic map enlargement of the Leavry Canyon quadrangle.

This scale is 1 inch to 1000 feet. And it shows
the subject Section 2. Additionally it has
highlighted in yellow the proposed surface
location of the well.

And then additionally seismic line shot points are shown across the area. And then finally in orange I've identified the fractured target area for the reservoir.

- Q. Why is this particular location being proposed?
- A. Based on our seismic interpretation, we have interpreted the Niobrara member of the Mancos to be fractured in this position.
- Q. Is this the only location on this 40-acre tract where you would be able to intersect the fracture system?
  - A. Yes.

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- Q. Would it be possible to drill the well at a standard location on this acreage?
  - A. No, it would not.
- Q. Would you identify what the remainder of Exhibit 2 includes?
- A. Okay. The next three pages are simply a notice of staking package, which was sent to the BLM for this well and for other wells. And

it simply consists of a cover letter, the notice
of staking form itself, and then a corresponding
supporting topographic map.

- Q. Let's go to what has been marked American Hunter Exhibit No. 3, and I'd ask you to identify that.
- A. Exhibit No. 3 is a C-102 survey plat showing the latest survey of the proposed location of the well.
- Q. Have you had an on-site inspection of this location?
  - A. Yes. We had an on-site yesterday. And the surface location remains as shown on the diagram.
    - Q. Let's move now to what has been marked Exhibit No. 4. Please identify and review that.
    - A. Following the same format Exhibit No. 4 is an acreage plat also showing the proposed location of the Jicarilla 24-N well in Section 24 of 27 North, Range 2 West. Additionally it shows that this is a standard section composed of 640 acres.
  - Q. What exactly is the footage location you're proposing for this well?
    - A. Shown on this acreage plat is the

originally requested surface location filed with the Commission of 2250 feet from the west line and 1000 feet from the south line.

- Q. What rules govern the development of this acreage?
- A. This Section 24 well lies within one mile of distance from the outer boundaries of the West Puerto Chiquito-Mancos Pool boundary and as such is subject to 640-acre spacing and 1650 setbacks.
- Q. And so you are developing this with a standard spacing unit, but you are too close to the south line of the acreage?
  - A. That's correct.

- Q. Let's go now to what has been marked as Exhibit No. 2. Could you identify -- I'm sorry, page 2 of Exhibit 4.
- A. Page 2 is the topographic enlargement of the proposed well in Section 24. Also shown here is the seismic line shot points. And in the previous convention the fractured target area identified from the seismic.
  - Q. Who offsets you to the south?
- A. The Jicarilla Tribe joint venture acreage.

1 Q. On the 640-acre tract, are there other locations that are available within the spacing 2 3 unit on which you can locate a well? For a straight hole? 4 Α. 5 Q. Yes. 6 Α. No. 7 There has been an on-site inspection of Q. 8 this particular well location; is that correct? Yes, that's correct. We had an on-site 9 Α. 10 inspection yesterday. And as a result of that on-site inspection, the surface location of this 11 12 well has changed slightly from what is shown on 13 here. And what is the current surface 14 0. 15 location? The current surface location would be 16 Α. 17 1025 feet from the south line and 2030 feet from the west line. 18 19 At this new location will you be able 20 to drill this well as a straight hole and 21 intersect the fracture system in a position that 22 will enable you to produce the reserves under 23 this acreage?

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Α.

Q.

Yes.

If we go back in Exhibit 4 again you

have included your application --

- A. The notice of staking package.
- Q. -- to the Bureau of Land Management?
- A. Yes.

- Q. Exhibit No. 5 is what?
- A. Exhibit No. 5 is the C-102 survey plat which was performed on August 8. But as I just mentioned as a result of the on-site held yesterday, those footages have now changed and are 2030 from the west line and 1025 from the south line.
- Q. This case would have to be readvertised to correct these well locations, would it not?
- A. Well, I guess that's in the jurisdiction of the OCD here, but I'd like to point out that the encroachment change from the advertisement still affects the same parties.
  - Q. In fact you're moving farther away?
- A. Right, we're moving farther away and not getting closer, and it affects the same parties as was advertised.

EXAMINER CATANACH: Excuse me, Mr.

Carr. The plat that identifies that well was stated as 2350, and the advertisement is stated as 2250.

MR. CARR: Okay. And where we are moving that location now would be to 2030. EXAMINER CATANACH: Okay. MR. CARR: I think all of those are more than 1650 back from the outer boundary of the track in that regard. What, I guess, we're doing is moving 25 feet farther away from the south boundary by this change in location as a result of the on-site. And I don't know in those 

circumstances if you would require

11 | readvertisement or not.

**EXAMINER CATANACH:** Think about that, Bob.

MR. STOVALL: Let me ask Mr. Carr, while we're thinking about it, if we didn't readvertise it, what could be potential impact on your client?

MR. CARR: Well, the case has been advertised with the well actually closer to the offsetting property owner than where it will actually be located. In that circumstance I would think that there's been adequate notice to the offsetting owner, which in fact is American Hunter and the Jicarilla Tribe who are proposing to develop this as one of their joint venture

properties. So I see really no impact on here.

MR. STOVALL: My suggestion would be, I understand your rationale and I don't disagree with it, but I would so advise with the caveat that should somebody seek to challenge this application based upon the erroneous ad, the risk would be on American Hunter and not on the Division.

And I think what you've got to discuss with your client is whether or not you would rather clean up a technical error or if that risk is so minimal because the parties seeking to challenge based on that may not have any standing.

Why don't you discuss that with your client at the conclusion of the case here.

MR. CARR: We'll advise the Division.

MR. STOVALL: Yes, advise us. Again, my philosophy on notice is the purpose of it is to make sure the parties who would have a right which might be affected by an action be notified and have the opportunity to appear.

If in fact you are satisfied -- and again the risk is if something is -- if notice is improper, that party can then come in and

challenge the action, and the one who bears the burden is the applicant.

MR. CARR: Okay.

- Q. (BY MR. CARR) All right. Mr. Lister, let's move on to American Hunter Exhibit No. 6 and, I would ask you first to identify this.
- A. Exhibit No. 6 is an acreage plat for the proposed Jicarilla 5-B-1 well in Section 5 of 27 North, Range 1 West. It shows the proposed surface location as advertised, 660 feet from the north line and 1900 feet from the east line.
- Q. Is this the well that American Hunter no longer seeks authority for directionally drilling?
- A. Yes, that's correct. And additionally this shows the -- this is a nonstandard acreage section with 655.48 acres.
- Q. And what has caused that variation in the size of the proposed proration unit or spacing unit?
- A. It's a variation in the survey for the section.
- Q. What rules govern the development of this particular tract?
- 25 A. Section 5 well lies within the West

Puerto Chiquito-Mancos Pool area and as such is subject to 640-acre spacing and 1650 feet setbacks.

- Q. So this proposed location is too close to the north line of the dedicated acreage?
  - A. Yes, that's correct.

- Q. And who offsets American Hunter to the north?
  - A. The Jicarilla Tribe.
- Q. Have you resurveyed this location as well or had an on-site concerning the location of this well?
  - A. Yes. We had an on-site for this well yesterday. And the new surveyed location for it is 610 feet from the north line and 2110 feet from the east line.

MR. STOVALL: Again, if I look at the advertisement on this one, I'll just raise the issue, the bottom -- what you've now done is put the surface location, before the change from yesterday, at the location originally proposed for the bottomhole location; is that correct?

And so you've simply now have taken your surface location and moved it to be vertically above the bottomhole location?

1	THE WITNESS: That's correct. And that
2	was as a result of the previous on-site. And the
3	surface location was moved at the request of the
4	Jicarilla Tribe.
5	MR. STOVALL: To the directional
6	location you mean?
7	THE WITNESS: No. From the directional
8	location, which was chosen by American Hunter, to
9	the straight-hole location shown here.
10	MR. STOVALL: The 610-2110 you mean or
11	the Let me get back to where we're going.
12	We're going with the advertising issue. And the
13	question is, again, let's first discuss offsets.
14	Is there any change in the offset issue?
15	I guess you hadn't gotten into that,
16	had you, Mr. Carr?
17	MR. CARR: The offset on this property
18	who offsets this to the north?
19	THE WITNESS: The Jicarilla Tribe.
20	MR. CARR: So we are
21	MR. STOVALL: They're the party
22	requesting the change?
23	THE WITNESS: They're the party
24	requesting the change. Furthermore, as a part of
25	the joint venture arrangement, they have

requested that we drill this well. We are 1 drilling the well for the Jicarilla Tribe in this 2 instance. 3 EXAMINER CATANACH: In this particular instance, though, you're encroaching further to 5 the north? 6 THE WITNESS: To the Jicarilla Tribe, 7 8 yes. 9 EXAMINER CATANACH: Than was advertised? 10 11 THE WITNESS: Than was advertised. 12 MR. STOVALL: For the bottomhole location. 13 THE WITNESS: For the bottomhole 14 15 location. But, nevertheless, the oil and gas administrator for the Jicarilla Tribe and 16 other officials from the Jicarilla Tribe were 17 present at the on-site yesterday and approved 18 19 this new surface location. 20 MR. STOVALL: Okay. This is basically 21 a joint venture well on Jicarilla owned property? 22 THE WITNESS: Yes. 23 MR. STOVALL: As has been discussed in 24 several of your cases, I believe? 25

1	THE WITNESS: Right.
2	MR. STOVALL: And the tract to the
3	north is unleased Jicarilla at this time?
4	THE WITNESS: Is Jicarilla acreage
5	which is not controlled by the joint venture
6	arrangement.
7	MR. STOVALL: And there's no other
8	lessee or working interest owner?
9	THE WITNESS: That's correct.
10	MR. STOVALL: I guess my recommendation
11	on the advertising would essentially be the same
12	as the last one. I don't think the surface
13	location makes a whole lot of difference. The
14	change in bottomhole, I think, make an evaluation
15	as to whether or not there is any risk to the
16	client of not readvertising.
17	MR. CARR: And with your permission,
18	Mr. Catanach, at the end of the hearing, we will
19	advise you on which of these cases we think need
20	to be readvertised.
2 1	EXAMINER CATANACH: Okay.
22	Mr. Lister, let me just ask you, do you
23	have any knowledge as to why the locations were
24	moved yesterday?
25	THE WITNESS: I don't have specific

information, but I can tell you that it relates to concerns having to do with surface water drainage from an adjacent canyon to the east and that, by moving this location a little bit farther to the north, it would remove it from potential endangerment from 100-year floods that might occur.

MR. STOVALL: You're getting up out of the canyon a little more?

THE WITNESS: Yes.

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MR. STOVALL: As I look at the topo, you're getting on higher elevations?

THE WITNESS: Right. You can see the location was moved farther to the north and farther to the west away from the mouth of that canyon.

- Q. (BY MR. CARR) Mr. Lister, let's go to page 2 of Exhibit No. 6. Would you identify that, please?
- A. That's the topographic map for the area, again, enlarged to 1 inch equals 1000, showing the 660 feet from the north line and 1900 feet from the east line location, and the seismic line shot points, and once again the fractured target area.

- Q. Now, the purpose of this location, or unorthodox location, is to enable American Hunter to intersect this fracture system?
  - A. That's correct.

- Q. The new location that has resulted from the on-site inspection of this well has moved the well somewhat to the north?
  - A. Somewhat to the north and to the west.
- Q. Will you still be able from that location to intersect this fracture system?
- A. Yes. You can tell from the scale of the map and the footage of movement that we should still be able to intersect that orange highlighted area.
- Q. Is it necessary to locate the well at this particular location if you are to intersect the fracture system on this spacing or proration unit?
  - A. Yes, it is.
- Q. Are there other locations available on this acreage from which you could develop it and at the same time have a reasonable chance of intersecting the fracture system?
- A. No.
- Q. And behind this again you have your

1 | application to the BLM?

- A. That's correct.
- Q. Let's go now to what has been marked American Hunter Exhibit No. 7. Would you identify this, please?
- A. American Hunter Exhibit No. 7 is an acreage plat for the proposed Jicarilla 28 B-1 well located in Section 28 of Township 27 North, Range 2 West. It shows the proposed surface location of the well as 500 feet from the north line and 1450 feet from the east line.

Additionally it shows that this is an under-sized section. It is composed of 430.56 acres.

- Q. And that again is a result of a survey variation?
  - A. That's correct.
- Q. What rules are applicable to a well drilled at this location?
  - A. This proposed location lies within one mile of the outer boundary of the Gavilan-Mancos Pool and as such is subject to 640-acre spacing and 1650 setbacks.
- Q. So this well is in fact too close to both the north and the east lines?

1 A. That's correct.

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- Q. Who offsets this spacing unit to the north and the east?
- A. The Jicarilla Tribe and American Hunter joint venture acreage.
- Q. Has there been an on-site inspection at this location?
  - A. No, there has not. We attempted to have this well as an on-site yesterday, but they ran out of time. This is currently scheduled for next Thursday.
  - Q. So, to the best of your knowledge, the location is still 500 feet from the north line, 1450 feet from the east line?
    - A. Yes, it is.
    - Q. Could you refer to what has been marked as American Hunter Exhibit No. 8, please, and identify that?
  - A. No. 8 or the next page?
- Q. No. I'd like to go to No. 8 now, if we could.
  - A. Right. No. 8 is a C-102 surface survey for the Section 28 well. And it shows the surveyed location as 455 feet from the north and 1510 from the east. This survey was prior to an

on-site but subsequent to the advertisement of the location. So this is the current proposed location.

- Q. So the location set forth on Exhibit 7 of 500 from the north line has been moved to 455 from the north line; is that correct?
  - A. That is correct.

MR. STOVALL: Wait a minute. What's been on-sited and what hasn't?

THE WITNESS: This one is the only one which has not been on-sited.

MR. STOVALL: Didn't you just say that something was on-sited to get it to this 455?

THE WITNESS: If I did, I was in error. This has been surveyed subsequent to the advertisement of this previous location. It has not been on-sited. It will be on-sited next Thursday.

- Q. (BY MR. CARR) So the correct location for this well is 455 from the north line, 1510 from the east line of this section?
  - A. That's correct.
- Q. And consequently this location is closer to the north line than what was advertised for this case?

1 | A. That's right.

- Q. Let's go to page 2 of Exhibit No. 7. Could you review this for Mr. Catanach?
- A. Page 2 once again is a topographic map for the area. In this instance it shows first the proposed location as well as two seismic lines, shot point sets, and the identified fracture target area.
- Q. Again this location has been picked based on seismic information?
  - A. That's correct.
- Q. And the purpose is to intersect the fracture system so as to produce reserves under the tract?
  - A. That's correct.
- Q. And, Mr. Lister, with any of these applications, have you picked the only location on the spacing unit from which you believe, based on the data you have available, you will be able to intersect the fracture systems?
  - A. Yes.
- Q. Are there any other locations on any of these tracts from which you could effectively and efficiently produce the reserves from each of these tracts?

1 A. No.

- Q. With the variations in the locations that we have encountered in the last few days on these wells, do you have an opinion as to whether or not the wells are still positioned to intersect the fracture system?
- A. Yes. If you review the movements in the locations, you will find that they still fall within the identified fracture target area.
- Q. On each of these tracts, if American Hunter was required to develop the property from a standard location, what impact would that have on your plans or ability to go forward with this project?
- A. We would likely not be able to intersect the fractured target area in optimum position. And the result would either be a nonproductive well or marginally productive thereby creating lost reserves.
- Q. Is Exhibit No. 9 a copy of an affidavit confirming that notice of each of these applications has been provided to the Jicarilla Tribe, the BLM, the Jicarilla -- the Jicarilla-Apache Agency, and Benson-Montin-Greer?
- A. Yes, it is.

In your opinion will approval of these 1 Ο. 2 applications enable American Hunter to produce reserves that otherwise will not be recovered? 3 4 Α. Yes. Will approval of these applications 5 Q. otherwise be in the best interest of 6 conservation, the prevention of waste, and the 7 protection of correlative rights? 8 9 Α. Yes. How soon would American Hunter like to 10 Q.

Q. How soon would American Hunter like to commence the drilling of the wells that are involved in these applications?

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- A. With approval of these locations, we're prepared to begin dirt work as early as two weeks from now.
- Q. In what order would you actually propose to drill the wells?
- A. We would propose to drill Section 24 as our first well, Section 2 as our second well, and Section 28 as our third well, and 5 as the fourth well.

MR. STOVALL: One further question. What is the priority of getting these wells approved in comparison with the priority of getting your injection, assuming it would be

1	approved?
2	THE WITNESS: Well, quite
3	MR. STOVALL: Which one do you want
4	first?
5	THE WITNESS: Well, quite honestly, I
6	think the approval of these locations simply
7	because when you're dealing with drilling
8	schedules, as you know, a delay in one delays
9	three additional ones. And we are making every
10	attempt to drill these in the summer season, and
11	we'd like to get on with it as soon as possible.
12	MR. STOVALL: Now, you don't have to
13	make a decision.
14	Q. (BY MR. CARR) Were Exhibits 1 through
15	9 prepared by you or compiled under your
16	direction?
17	A. Yes, they were.
18	MR. CARR: At this time, Mr. Catanach,
19	I would move the admission of American Hunter
20	Exhibits 1 through 9.
21	EXAMINER CATANACH: Exhibits 1 through
2 2	9 will be admitted as evidence.
23	MR. CARR: Mr. Catanach, at this time,
24	if I could, it appears to me that the last two
25	applications involve situations where, even

though we're moving toward the Jicarilla Tribe
and they have approved the locations, we're
moving closer to the outer boundary of the
dedicated acreage. And I would request that both
of those cases be readvertised.

The first two cases, the first one is at the correct location as advertised. The second one, we're actually moving farther away from the offsetting property. In those two circumstances we would submit that further advertisement is not required.

 $\hbox{ And that concludes my examination of } \\ \hbox{Mr. Lister.}$ 

EXAMINER CATANACH: We'll readvertise 10537 and 10538?

MR. CARR: Yes, sir.

MR. STOVALL: That brings up an interesting question, Mr. Carr, and perhaps given again the purpose of notice is to notify offsetting -- or people who might be affected, you have presumably given and according to your affidavit given notice to -- individual notice, personal notice by registered certified mail to the direct offsets?

MR. CARR: Yes.

1 MR. STOVALL: If I were to get very technical, they might not necessarily read the 2 advertising since they have received notice. 3 you have any problem with sending them a letter 4 and saying, oh, by the way --5 MR. CARR: 6 No. MR. STOVALL: -- give them the same 7 dignity of the change of notification as they 8 received the first time. 9 MR. CARR: No, we would have no problem 10 11 with that. MR. STOVALL: I think that might even 12 better protect you, as long as you're going to do 13 14 it. MR. CARR: We're not really 15 particularly worried about having a problem with 16 17 any of these. MR. STOVALL: I don't think you are 18 19 either. 20 MR. CARR: But since we are moving closer to the outer boundary of a spacing and 21 proration unit and since the last two cases are 22 the last two wells on the drilling program, it 23

MR. STOVALL: Yes. I just think if

seems to me it would be appropriate to do that.

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you're going to do, the real people that are

affected ought to get the same dignity of notice

as they got the first time.

MR. CARR: We'll renotify them by certified mail.

EXAMINER CATANACH: In terms of notice, can you explain why Benson-Montin-Greer got notice of these cases?

MR. CARR: I should respond to that.

We were notifying -- Benson-Montin-Greer is not an offsetting operator. But we have been, as you are aware from the preceding hearing, in close communication with Benson-Montin-Greer on all of our activities up in the basin. And we did as a courtesy provide the notice to Mr. Greer so he was kept fully advised of what we were doing.

MR. STOVALL: The other question I would ask with respect to 10538 is how comfortable are you with the current location and the potential changes, any potential changes that might be required for field offsetting? Any level of comfort on what the tribe and BLM might require?

And the reason I ask is if we take that under advisement or advertise it as even this

closer location and you get shifted a little bit, does that raise the problem further? Or do we put a no-closer-than type of advertisement and just accept the fact that if you get any closer, then we've got to start all over?

Mr. Carr, that's probably --

MR. CARR: If you're asking me if I have any comfort level of what the Indians and BLM would do in this area, I can tell you I have absolutely none.

MR. STOVALL: I could ask Mr. Lister that.

MR. CARR: And the fact of the matter is that I guess we could advertise the last one as no-closer-than, recognizing if they move it and we're closer to the outer boundary, we may have to advise you that it has to be further.

MR. STOVALL: What I would raise at that point is think for a minute about what the no-closer-than distance ought to be and let's go ahead and address it at this hearing so that you don't have to reopen the case.

I mean, is it necessarily the 455 feet or whatever it is?

THE WITNESS: 330 feet. If 330 feet

were acceptable, that would, I think, would give us adequate room for moving, not that I anticipate that would happen. But --MR. CARR: Well, with the permission of the Division, if we could advertise the well in Case 10538 for a location no closer than 330 to the north and 500 -- or 1500 to the east --No closer than? THE WITNESS: MR. STOVALL: What's the current location to the east? MR. CARR: 510. THE WITNESS: 1510.

MR. CARR: 1510. If we could go 330 from the north and 1400 from the east and advertise that, if once again they move location on us, we would at least have an adequate notice out, hoping that what we will be able to do is go forward 455 from the north and 1510 from the east.

MR. STOVALL: And since we're not writing the order yet, one of the things you may want to do when it's recalled after readvertisement is come back in and say you have had your on-site completed and get your location approved at that time.

MR. CARR: We hate bringing a case to you like this. We are finding it just extremely frustrating trying to get some wells going this year and every time we touch it having locations moved on it.

For that reason, at least yesterday, we felt we might have to address the last case with the on-sites that we requested several weeks ago and were unable to get them scheduled until yesterday. That's how we wound up in this posture before you today.

[A discussion was held off the record.]

MR. STOVALL: That makes more sense to

me. I'd hate to see you get caught on an

advertising loop when you can come back in on

that hearing and say this is the location.

You've gotten the approval, and we don't have to

go through and start all over again.

MR. CARR: That concludes my examination of Mr. Lister. And I would pass him for cross.

MR. STOVALL: I suppose you're going to ask some engineering type questions now, Dave?

EXAMINER CATANACH: Oh, heck, no.

EXAMINATION

## BY EXAMINER CATANACH:

- Q. Mr. Lister, let me make sure I understand the process in which you used to initially determine your locations. The seismic was shot, and the seismic indicated to you the direction of the fractures? Or further explain that to me.
- A. The seismic was shot and processed and interpreted. And on the basis of the interpretation, we have identified anomalies highlighted by the orange on the map and identified as fracture target area. And those anomalies that we've identified we believe to be fractures within the Niobrara of the Mancos Formation.

So therefore we chose the surface location of the well in such a position that we could drill a straight hole into that fractured target area as accurately as possible to intersect the fractures.

- Q. Now, the fractures are not limited to that area in orange?
- A. They may not be limited to that area in orange, but we only have two dimensions of information from the seismic lines in most

cases. They run, in the case of like the Section 2 well, it's east-west, and we're looking at information from just that seismic line. How the fractures extend north or south off of that line or at what orientation, we can't determine without having a denser seismic grid in the area.

So therefore moving away from the seismic line, we're moving away from the interpreted area, would be an unwise thing to do as far as trying to optimize the position of the wellbore.

- Q. Without running more seismic?
- A. [Nodded.]

- Q. Can you tell me how it was determined where to run the seismic within these sections?
- A. Generally speaking, we placed the seismic lines with, I'd say, three considerations. On the basis of existing well control in the area, some seismic lines were placed to intersect existing wells and thereby tie into the wells and calibrate your seismic as to which horizons you're looking at.

Secondly, they're obviously positioned on the joint venture acreage. Thirdly, they are

positioned to take advantage of the natural 1 2 topography of the area. We as a general rule would avoid extremely rugged topographic areas in 3 laying out the seismic for two reasons: because the seismic would be much more expensive; 5 and two, because you'd have a much greater 6 7 difficulty in locating a well in an extremely rugged area. 8

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As development goes on in the area, we will probably shoot additional lines and infill wells and seismic, but as kind of a first pass of exploration through the area, that was the basis for locating the lines.

- Well, was any consideration given to Q. maybe running some seismic lines through what might be a standard location within these sections?
- Yes. I tried to argue that case with the geophysicist, but I lost. It would make my life a lot easier too.
  - That's interesting. Q.

MR. STOVALL: I suppose his argument was that he had some reason for believing that that would be less likely to yield some sort of beneficial fracturing, and so he picked that

based upon some other considerations that he had, 1 like surface evaluation or stuff like that? 2 THE WITNESS: Some limited amount of 3 surface evaluation did go into the placement of 4 the lines, I mean, other than the topography. 5 MR. STOVALL: Right. Surface 6 7 evaluation of geology? THE WITNESS: Right. 8 (BY EXAMINER CATANACH) So if I recall 9 Q. Mr. Carr asking you the question of whether or 10 not this area would be the only area within the 11 12 section which would intersect the fracture system, that's not true. It would be the only 13 known area at this time, right, that you may know 14 of? 15 16 Yes. The seismic data reveals where Α. the interpreted fractures would be. And there's 17 no way of knowing without additional seismic 18 whether there are other locations in the area. 19 20 But presently these are the only locations. 21 EXAMINATION BY MR. STOVALL: 22

Did the Jicarillas, as your joint

venture partner, participate in the decisions

about where to run lines and where to look for

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this stuff?

- A. Yes, they did. And they approved the seismic permitting for the lines. And they were present in the field when we acquired the data as a monitoring of the conduct of the operations.
- Q. As a joint venture partner -- and the reason I'm asking these questions is having to do kind of with the correlative rights issue, they being the owner of the minerals and a participant.

In general are they relatively active in the management and decision making in this process, not in terms of operational, but in terms of these more significant things about picking locations?

A. Well, no. We are the operator for the property. And I guess, you know, we make the initial recommendations, and they're free to object in several different forms, either denial of the permit or objecting to where we're drilling the wells.

But once again they have approved the surface locations for these three wells, the 5 and the 24, and the 2.

Q. So their participation is generally at

the second level, that of reviewing your 1 2 recommendations and decisions, and then issuing approvals through some sort of authority? 3 That's correct. 4 Α. Rather than participating in the 5 Q. 6 initial decision making? 7 Yes. But on the odd-numbered sections, Α. as was mentioned in a previous case, they are in 8 control of those sections to a greater degree. 9 And in order to drill or operate on those, it's 10 essentially at their request. 11 EXAMINER CATANACH: Anything else? 12 13 MR. STOVALL: No. EXAMINER CATANACH: I don't think I 14 have anything else either. 15 MR. CARR: We have nothing further. 16 And I will provide notice to the offsetting 17 owners again on Cases 10537 and 538. We would 18 request those be readvertised. 19 EXAMINER CATANACH: Okay. Case 10538 20 and 10537 will be readvertised. 21 Mr. Carr, if I may ask you for, since 22 these cases are so similar, I'll just ask you for 23

one rough order with some emphasis on the

findings as to the geologic reasoning for the

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1	seismic and the initial staked locations.
2	MR. CARR: Okay.
3	EXAMINER CATANACH: With that we'll go
4	ahead and take Case 10535 and 10536 under
5	advisement.
6	[And the proceedings were concluded.]
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14	I do hereby certify that the foregoing is  a complete record of the proceedings in 37, 32
15	the Examiner hearing of Case No. 1036.
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## CERTIFICATE OF REPORTER 1 2 3 STATE OF NEW MEXICO SS. COUNTY OF SANTA FE 4 5 I, Debbie Vestal, Certified Shorthand 6 Reporter and Notary Public, HEREBY CERTIFY that 7 the foregoing transcript of proceedings before 8 the Oil Conservation Division was reported by me; 9 that I caused my notes to be transcribed under my 10 personal supervision; and that the foregoing is a 11 true and accurate record of the proceedings. 12 I FURTHER CERTIFY that I am not a 13 14 relative or employee of any of the parties or attorneys involved in this matter and that I have 15 16 no personal interest in the final disposition of this matter. 17 18 WITNESS MY HAND AND SEAL AUGUST 26, 19 1992. 20 21 22 23 VESTAL, DEBBIE NEW MEXICO CSR NO. 3 24