#### 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:

APPLICATION OF PERMIAN RESOURCES, INC., FOR A NONSTANDARD SPACING AND PRORATION UNIT AND AN UNORTHODOX WELL LOCATION, LEA COUNTY, NEW MEXICO

> RECEI REPORTER'S TRANSCRIPT OF PRO

> > EXAMINER HEARING

WILLIAM V. JONES, JR., Hearing Examination Division Santa Fe, NM approximation Drive Oil Conservation Division BEFORE: Santa Fe, NM 87505

March 18th, 2004

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, WILLIAM V. JONES, JR., Hearing Examiner, on Thursday, March 18th, 2004, 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.

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

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CASE NO. 13,175

ORIGINAL

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**APPLICANT'S WITNESSES:** 

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<u>ROBERT MARSHALL</u> (Geologist) Direct Examination by Mr. Feldewert Examination by Examiner Jones

**REPORTER'S CERTIFICATE** 

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## EXHIBITS

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\* \* \*

# APPEARANCES

FOR THE DIVISION:

DAVID K. BROOKS, JR. Assistant General Counsel Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, New Mexico 87505

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

\* \* \*

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WHEREUPON, the following proceedings were had at 1 2 8:47 a.m.: EXAMINER JONES: Next case is Case 13,175. 3 Let's call Case 13,175, continued from February the 5th, 4 Application of Permian Resources, Incorporated, for a 5 nonstandard spacing and proration unit and an unorthodox 6 well location, Lea County, New Mexico. 7 8 Call for appearances. MR. FELDEWERT: May it please the Examiner, my 9 Michael Feldewert with the Santa Fe office of the law firm 10 of Holland and Hart, appearing on behalf of the Applicant 11 in this case, Permian Resources, Inc., and I have two 12 13 witnesses here today. 14 EXAMINER JONES: Any other appearances? With that, will the witnesses please stand to be 15 sworn? 16 17 (Thereupon, the witnesses were sworn.) WILLIAM L. PORTER, 18 the witness herein, after having been first duly sworn upon 19 20 his oath, was examined and testified as follows: DIRECT EXAMINATION 21 BY MR. FELDEWERT: 22 23 Would you please state your name and address for ο. the record, please, sir? 24 25 My name is Will Porter and I live in Midland, Α.

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1	Texas.
2	Q. By whom are you employed and in what capacity?
3	A. I'm employed with Permian Resources, Inc., as
4	land manager.
5	Q. ave you previously testified before this Division
6	and had your credentials as a petroleum landman accepted
7	and made a matter of public record?
8	A. Yes, I have.
9	Q. And are you familiar with the Application filed
10	by Permian in this case and the status of the lands in the
11	subject area?
12	A. I am.
13	MR. FELDEWERT: Mr. Examiner, are the witness's
14	qualifications acceptable?
15	EXAMINER JONES: His qualifications are accepted.
16	Q. (By Mr. Feldewert) I would like to have you, Mr.
17	Porter, turn to Permian Exhibit Number 1. Would you
18	identify that for the Examiner and briefly outline what
19	Permian seeks with this Application?
20	A. Exhibit Number 1 is an ownership map showing
21	Section 17 as highlighted in yellow, our proposed location
22	for our Berry Hobbs Unit 17 Number 1 well, and we would
23	like to seek an order from the Commission approving the
24	drilling of our well at an unorthodox location 2490 feet
25	from the south line, 1850 feet from the east line, being

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1	located in Unit J, Section 17, and the approval of a
2	nonstandard 80-acre oil spacing proration unit for this
3	well, which would be a Strawn oil-producing formation
4	comprised of the southwest quarter of the northeast quarter
5	and the northwest quarter of the southeast quarter of
6	Section 17.
7	Q. Okay. Now, what is the initial objective for
8	your proposed well?
9	A. Our initial objective is the Morrow sand. It
10	will be a wildcat, and it would be under a standard east-
11	half spacing unit for the Morrow.
12	Q. Okay. So from the Morrow perspective we have an
13	unorthodox location but a standard spacing unit?
14	A. That's correct.
15	Q. Okay. Is there a secondary objective for this
16	well?
17	A. Yes, our secondary objective is the Strawn
18	formation, which is above the Morrow formation and is
19	Undesignated Northeast Shoe Bar Strawn Pool.
20	Q. Okay, so that would be an oil well?
21	A. That's correct.
22	Q. Okay. Now, I want to and again, would this
23	well be unorthodox for that Strawn completion?
24	A. Yes, it will.
25	Q. And for this Strawn completion you're seeking a

	,
1	nonstandard 80-acre spacing unit.
2	Q. Okay. Now, I want to focus a minute on the
3	unorthodox well location. Has the This case was
4	initially filed back in September of 2003, right?
5	A. That's correct.
6	Q. Okay, and there's been some delay associated with
7	permitting from the City of Lovington?
8	A. Correct.
9	Q. All right. Has the footage location changed
10	since the filing of that initial Application?
11	A. Yes, it has. We originally advertised it as
12	being 2550 feet from the south line and 1950 feet from the
13	east line, being 90 feet from the northeast quarter of
14	Section 17. We have since moved that location for
15	geological reasons, which will be discussed a little later,
16	to the 2490 feet from the south line, 1850 feet from the
17	east line, which actually moves it more into an orthodox
18	location 150 feet from the northeast quarter of Section 17.
19	Q. Okay, so as advertised it was 90 feet from the
20	northeast quarter?
21	A. Right.
22	Q. And as a result, from geology, you've now moved
23	it to a more orthodox location, and you're now 150 feet
24	from the northeast quarter?
25	A. That's correct.

Okay. But nonetheless, your location as stands ο. 1 is still unorthodox for both gas and oil? 2 3 Α. Still unorthodox, yes. 4 All right. Now, I want to focus on the request, Q. briefly, for the nonstandard spacing unit. Again for the 5 Morrow prospect you've got a standard east half; is that 6 7 right? That's correct. 8 Α. 9 Q. For the Strawn prospect are there special pool 10 rules governing this oil pool? 11 Α. That's correct, we're required to have 80 acres committed, and the 80 acres should be comprised out of the 12 13 north half of the section or the south half, the east half or the west half of the quarter section, with wells no 14 15 closer than 330 feet from the quarter-quarter section line. Okay, so you're seeking an exception to these 16 0. 17 special rules in that your spacing unit will be crossing the section line? 18 19 The quarter quarter section line, yes, sir. Α. 20 Okay. All right, now is this proposed unorthodox 0. well location, as well as the nonstandard spacing unit in 21 the Strawn -- is that required due to geologic reasons? 22 23 Yes, it is. Α. 24 And is Permian going to present a geologist here Q. 25 today to explain the geology behind this request?

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1	A. Yes, we are.
2	Q. What acreage is affected by the unorthodox well
3	location?
4	A. It would be the northeast quarter of Section 17.
5	Q. Okay.
6	A. The well encroaches on that quarter section.
7	Q. And what acreage is affected by the 80-acre
8	nonstandard spacing unit for the Strawn formation?
9	A. That would be the south half of the northeast
10	quarter and the north half of the southeast quarter of
11	Section 17.
12	Q. Okay. Now, with respect to the acreage in the
13	east half of 17, is Permian the operator of this affected
14	acreage?
15	A. Yes, we are.
16	Q. What is the nature of your ownership in this
17	area?
18	A. We own this acreage by virtue of a leasehold that
19	we acquired when we purchased a wellbore there, plus
20	additional leases that we're taking and a farmout from
21	Fasken Oil and Ranch.
22	Q. Okay, and Permian is the designated operator for
23	the entire east half?
24	A. That's correct.
25	Q. Is the ownership in this east half of 17 common
-	

throughout the east half of the section? 1 2 Α. Yes, it is. Who's the other interest owner out here? 3 ο. The other interest owner is David Petroleum. 4 Α. And is David Petroleum and Permian the record 5 ο. title owners throughout this section? 6 7 That is correct. Α. Is Permian -- Do you have a waiver letter from 8 Q. David Petroleum? 9 T do. 10 Α. And has that been marked as Permian Exhibit 11 ο. Number 2? 12 13 Α. Yes, it has. 14 Q. So am I correct that Permian's Application is 15 only affecting the acreage it operates and acreage that has a common ownership throughout? 16 That is correct. 17 Α. Were Permian's Exhibits 1 and 2 prepared by you 18 ο. 19 or compiled under your direction and supervision? 20 Α. Yes, they were. Okay. Now, does Permian request an expedited 21 Q. 22 order on this Application, and if so, why? 23 Α. Yes, we do. We would like to have an expedited 24 order for several reasons. Number one, we do have a 25 farmout that expires April 1. We have executed a contract

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1	with the drilling company under very favorable economic
2	terms. If we don't honor that contract, we'll suffer some
3	financial penalties in order to maintain that contract.
4	And those are the two biggest reasons.
5	Q. Do you have a need to move quickly in this well?
6	A. Yes, we do.
7	Q. Are you hoping to have the approval from the
8	Lovington Extraterritorial Zoning
9	A. Yes.
10	Q Commission shortly?
11	A. Yes, we are.
12	MR. FELDEWERT: Okay. With that, Mr. Examiner, I
13	would move the admission into evidence of Permian Exhibits
14	1 and 2.
15	EXAMINER JONES: Exhibits 1 and 2 are admitted
16	into evidence.
17	MR. FELDEWERT: And that concludes my examination
18	of this witness.
19	EXAMINATION
20	BY EXAMINER JONES:
21	Q. Okay, Mr. Porter
22	A. Yes, sir.
23	Q I have you've answered a lot of the
24	questions, but let me go through it one more time here,
25	because you're asking for an expedited order.

	12
1	On the the operator of record in the Morrow is
2	who in that northeast
3	A. In the east half?
4	Q. In the east half.
5	A. It would be Permian Resources, Inc.
6	Q. So you guys are the operator of record?
7	A. That's correct.
8	Q. And you're only encroaching on the Morrow, on
9	yourself there?
10	A. Well, no, we are David Petroleum owns a
11	working interest position in the Morrow as well, and we
12	have entered into a voluntary working interest position
13	with them. They're going to participate in the drilling of
14	the well.
15	Q. Okay, so there's in effect, they're sort of an
16	operator also, out there?
17	A. Yes, they could operate the well. However, we
18	have the largest interest there, and they have asked us to
19	operate the well.
20	Q. Okay. Now let's get the location straight one
21	more time here.
22	A. Okay.
23	Q. I've got here 2490 from the south and 1850 from
24	the east; is that going to be the correct location?
25	A. 2490 from the south line and 1850 from the east

line, yes, sir. 1 Okay. So the east-west hasn't changed any of the 2 Q. encroachment problems; it's just -- you moved it a little 3 bit further toward an orthodox location? 4 Α. Correct. 5 But it's still unorthodox --6 ο. Correct. 7 Α. -- for the Morrow and the Strawn? 8 Q. That's correct. 9 Α. 10 Okay. Now, do you have anything showing that Q. Davis -- Is it Davis Petroleum? 11 12 Α. David. 13 Q. David Petroleum. Uh-huh. Α. 14 Do you have anything showing that they -- well, 15 Q. you noticed them --16 17 Α. Right. 18 Q. -- and you got something showing that you noticed 19 them in here? 20 Α. Right, yes, sir. 21 EXAMINER JONES: Okay. 22 MR. FELDEWERT: Exhibit Number 2 is a waiver. 23 EXAMINER JONES: Okay, thank you. 24 Q. (By Examiner Jones) And so that -- I think that 25 takes care of my questions on the notice on the Morrow.

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1	A. Okay.
2	Q. And we'll talk about the location of the well
3	with the geologist later, but Okay, the Strawn
4	A. Yes, sir.
5	Q now, a minute ago you said the areas affected
6	by the nonstandard proration in the Strawn
7	A. Uh-huh.
8	Q would be who?
9	A. The area?
10	Q. Yeah.
11	A. It would be the south half of the northeast
12	quarter
13	Q. Okay.
14	A a laydown 80, as I
15	Q. Okay, so you're saying that the other alternative
16	here is to do laydown 80s there?
17	A. That's correct.
18	Q. Okay, isn't there another alternative, is to do a
19	standup in the let's say the east half of the southeast
20	quarter? That could be a standup?
21	A. Possibly so, yes.
22	Q. And that would be a valid Now, why didn't you
23	go for that here?
24	A. Well, we tried to center our wellbore in the
25	middle of what we would consider an 80-acre proration unit.

1	I think if you did an east-half southeast or a west-half
2	southeast, the wellbore would be located in the absolute
3	upper corner of the proration unit.
4	Q. It would, except people do that all the time.
5	A. Okay.
6	Q. But is there any other land reasons why?
7	A. No.
8	MR. FELDEWERT: Geology.
9	Q. (By Examiner Jones) Okay, I can see the geology
10	reason.
11	A. I think when you see the geological reasons it
12	may help out a little bit more in understanding that.
13	Q. Okay. The nonstandard proration unit, it says on
14	the notice, to be given to all owners of interests in the
15	mineral estate. So who would be the interests who would
16	own the mineral estate here?
17	A. Permian Right now, Permian would own by virtue
18	of leasehold approximately 60 percent of the mineral
19	estate, and David would own the 40 percent.
20	Q. Okay, who would be the Who's the revenue
21	interest owners here?
22	A. There's about 60 of them.
23	Q. Okay. And you don't interpret this to mean that
24	you had to notice the revenue interest owners?
25	A. Well, we have discussed that, and we did go ahead

	10
1	and notify in this particular instance the mineral interest
2	owners that are currently subject to the leases. However,
3	the mineral interest owners are the same under the entire
4	section.
5	Q. Okay.
6	A. Okay?
7	Q. Okay. But you did send them a letter anyway?
8	A. Yes, out of an abundance of precaution. There's
9	numerous owners out there, and we just we made that
10	decision.
11	Q. So the whole east side of that section is common
12	ownership? I mean, as far as the working interest goes,
13	David Petroleum and Permian?
14	A. That's correct.
15	Q. You guys have
16	A. We don't own the same percentage, but we're the
17	two working interest owners there.
18	Q. Doesn't David own a certain acreage and you
19	and Permian own a different acreage?
20	A. No, we own undivided interest
21	Q. Undivided, okay.
22	A in the entire east half, that's correct.
23	Q. You've leased it as undivided leased it
24	together?
25	A. Well, no, when the Berry Hobbs Number 1 well,

1	which is located in the northeast quarter of the northeast
2	quarter there, was drilled, there were approximately 40 of
3	these leases taken.
4	Q. Okay.
5	A. That well still produces. It holds a quantum of
6	leasehold interest by virtue of those existing oil and gas
7	leases. There was a quantum of mineral interest owners
8	that had Pugh clauses or continuous development clauses,
9	the Berry Hobbs family being one of them.
10	The Berry Hobbs well is a Wolfcamp well that is a
11	160-acre proration unit
12	Q. Yeah.
13	A therefore the Hobbs leases expired as to the
14	west half and southeast quarter. David went in and leased
15	the Berry Hobbs family.
16	Q. Okay.
17	A. So that's how they acquired their interest in
18	that section.
19	Q. Okay.
20	A. In addition to the Hobbs family having a Pugh
21	clause as to surface, it also had a vertical severance in
22	it, which would be below the producing horizon, which is
23	the Wolfcamp out there. So when David took their leases,
24	not only did they take the west-half southeast quarter, all
25	depths there, they also took the northeast quarter below

the Wolfcamp, which would include our Morrow formation 1 So that's how they own a working interest position 2 there. in the Morrow in the east half. 3 They own a 40-percent interest, surface to all 4 5 depths in the southeast quarter. They own a 40-percent 6 working interest below the base of the Wolfcamp to all 7 depths, which would include the Strawn formation as well. ο. Yeah. 8 So this is very complex land. This is, in my 20 9 Α. 10 years, the most complex land deal I have worked on, and so 11 that's how the -- all mineral owners at this point in time 12 are voluntarily committed to -- either by virtue of a lease that's held by production, leases taken by David Petroleum 13 into our prospective drilling program out there. 14 15 Q. Okay. Yeah, if you have this nonstandard proration unit where you propose it to be, the royalty 16 17 owners south, directly south of that in the southwest of 18 the southeast would not share any production from the 19 Strawn, would they? 20 Α. They're the same, though, in the northwest of the 21 southeast. So there's no distinction in -- there's no 22 difference in royalty ownership in that 40-acre tract in the northwest of the southeast and the southwest of the 23 24 southeast. They're the same owners. 25 Q. Same owners, but they wouldn't get the same --

1	They would get some of the production, but they wouldn't
2	get if you made the proration unit in the west half of
3	the southeast, those southeast owners would get all of the
4	production, wouldn't they?
5	A. Yes, but it's the same ownership
6	Q. Yeah.
7	A. The ownership in that, if you that 80 acres
8	that we have outlined in red there
9	Q. Yeah.
10	A the ownership would be the same if we did a
11	standup west half
12	Q. Okay.
13	A southeast. Nobody's penalized, in my opinion,
14	by having this nonstandard proration unit as to the royalty
15	ownership.
16	Q. Okay. And as far as the nonstandard location in
17	the Strawn, the with your proration unit, if it gets
18	approved the way you propose it, you're only encroaching on
19	yourself there?
20	A. Yes.
21	Q. But Okay. So it kind of all goes together.
22	A. Yes, sir.
23	Q. But if you did have a south
24	A. If we had a different mineral owner in the
25	northeast quarter and a different mineral owner in the

	20
1	southeast quarter, and they had different royalties on
2	their leases, then yes, I think this setup would dilute
3	their royalty interest to a degree.
4	Q. Yeah.
5	A. However, because they're all the same, no matter
6	how you set up the proration unit there, they still benefit
7	the same revenue interest.
8	Q. Okay.
9	A. Yes, sir.
10	Q. Okay, so when you notified these 80 owners or so,
11	you told them exactly what you're going to do here, you're
12	proposing to do?
13	A. Yes, that's correct.
14	Q. Okay, and I can verify that in the Application
15	somewhere?
16	A. Right.
17	Q. Okay. Let's see here. And there was no
18	administrative application here that I could find. Did you
19	guys apply administratively for any of this?
20	A. I don't think we did, no.
21	Q. You just went straight to hearing on that?
22	A. Right.
23	Q. Okay.
24	A. And I think the reason is, is because of the
25	nonstandard proration unit, more than anything, just

.

1	because it crossed over a quarter-section line.
2	Q. Right.
3	A. Uh-huh.
4	Q. Now, the working interest owner of record in the
5	Strawn, there's a lack of any Strawn production here, so we
6	don't have a you just have leasees; is that correct?
7	A. That's correct.
8	Q. Just David and Permian?
9	A. That's correct, yes, sir.
10	EXAMINER JONES: Okay, I don't think I have any
11	more questions.
12	EXAMINATION
13	BY MR. BROOKS:
14	Q. Just to clarify, the mineral interest owners are
15	the same people and the same percentage, correct?
16	A. No, there's approximately 40 to 50 mineral owners
17	in the section, and they don't own all the same mineral
18	interest out there. You have one mineral owner with a
19	certain percentage and another mineral owner with a
20	different percentage.
21	Q. Yeah, but they're the same percentages throughout
22	the east half?
23	A. Yes, they own undivided
24	Q. Each one owns each mineral owner owns the same
25	percentage throughout the entire

1	Α.	east half.
2	Q.	east half?
3	А.	That's a correct statement.
4	Q.	And the royalties provided in the leases are the
5	same?	
6	А.	No, they're different.
7	Q.	Okay. Does that What I'm trying to get to is,
8	not only	the mineral percentage ownership but the net
9	revenue i	nterest, is that the same
10	Α.	Yes, it will be
11	Q.	throughout the
12	А.	it will be the same. The same a mineral
13	owner tha	t would lease, if he has an undivided interest in
14	the entir	e section, in the entire east half
15	Q.	Yeah.
16	Α.	he may lease for 3/16 royalty, another mineral
17	owner may	have leased for a 1/4 royalty, but he's also
18	undivided	under the entire east half
19	Q.	Okay, so there's no
20	А.	so
21	Q.	difference in the percentage of royalty or
22	Α.	There's
23	Q.	from one part of the unit to another?
24	A	That is correct.
25	Q.	Okay.

	23
1	A. Yeah, didn't take a lease from Joe up here for a
2	quarter and take a lease from him down here for a fifth
3	or
4	Q. Yeah.
5	A that's correct.
6	MR. BROOKS: That was my question.
7	EXAMINER JONES: Okay.
8	MR. FELDEWERT: Mr. Examiner, I just want to
9	clarify a couple things I think Mr. Brooks hit on. We
10	don't see that there's any affected parties by this
11	Application. That's why no notice has been sent.
12	What Permian did, just as a matter of
13	communicating with their royalty owners, they did send each
14	one of the a copy of the Application, but we don't have a
15	notice affidavit or anything like that in the file, because
16	there are no affected parties that are entitled, under the
17	Division Rules, to notice of this Application.
18	So I just want to make sure you understood that.
19	That's why we do not have a notice affidavit like we would
20	normally have in the file.
21	EXAMINER JONES: Okay. Okay, thanks for
22	clarifying that.
23	MR. FELDEWERT: Okay, with that I'll call our
24	next witness.
25	EXAMINER JONES: Yes. Thank you, Mr. Porter.
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1	THE WITNESS: Thank you.
2	ROBERT MARSHALL,
3	the witness herein, after having been first duly sworn upon
4	his oath, was examined and testified as follows:
5	DIRECT EXAMINATION
6	BY MR. FELDEWERT:
7	Q. Would you please state your name and where you
8	reside for the record, please?
9	A. I'm Robert Marshall, and I reside in Midland,
10	Texas.
11	Q. And by whom are you employed and in what
12	capacity?
13	A. By Permian Resources, Inc. I'm the CEO and
14	geologist.
15	Q. Have you previously testified before this
16	Division?
17	A. Yes, I have.
18	Q. And at the time of your testimony, were your
19	credentials as a petroleum geologist accepted and made a
20	matter of record?
21	A. Yes, they were.
22	Q. Mr. Marshall, are you familiar with the
23	Application that's been filed by Permian in this case?
24	A. Yes, I
25	Q. And have you made a technical study of the area

1	in support of this Application?
2	A. Yes, I have.
3	MR. FELDEWERT: Are the witness's qualifications
4	acceptable?
5	EXAMINER JONES: His qualifications are
6	acceptable.
7	Q. (By Mr. Feldewert) Now, I understand from the
8	previous testimony that the initial objective for Permian's
9	well is as a wildcat to test the Morrow sands; is that
10	correct?
11	A. That's correct.
12	Q. And you have a secondary objective that is the
13	oil from the Strawn formation?
14	A. That's correct.
15	Q. Okay. Would you Before looking at the
16	exhibits, would you just summarize for the Examiner why
17	this unorthodox well location is important to the project
18	and why a nonstandard spacing unit for the Strawn formation
19	is appropriate in this case?
20	A. Okay. The company acquired 3-D data, 3-D seismic
21	data over its acreage and has identified a Strawn algal
22	mound carbonate under at the proposed location. In most
23	cases in this area, all of the Strawn algal mounds are very
24	small in areal extent, and this is the case at the proposed
25	location.

1	The same 3-D data has also identified a Morrow
2	channel which is coincident with the Strawn algal mound at
3	the proposed location, and this coincidence of the Straw
4	and the Morrow being found at the proposed location will be
5	tested, be able to be tested, with one well.
6	Q. Okay. With that, would you turn to what's been
7	marked as Permian Exhibit Number 3, identify that and
8	review that for the Examiner, please.
9	A. Okay, we're looking at Number 3?
10	Q. Yes.
11	A. The reddish-colored map. This is a 3-D seismic
12	amplitude map of the Strawn formation.
13	For clarification and just for orientation on the
14	map, the black lines that you see on the map are the north
15	section line, the east section line, the west section line
16	and then the west half-section line. Okay, those black
17	lines are section lines.
18	The green and the gray lines that are on that are
19	the 3-D grid shot points that were done on it. Then you
20	have the proposed location for the Hobbs 17-1.
21	And basically on this the darker areas are the
22	areas where the Strawn algal mounds are proposed to be
23	developed. What this is showing is at this 1 to 1000 scale
24	that these carbonate mounds are very small in areal extent.
25	Q. Is your proposed location is that as close to

1	a standard location as you can get and yet still target the
2	reef?
3	A. Yes.
4	Q. And at your proposed well location, is that the
5	location that is optimum for this coincidence with the
6	Morrow objective?
7	A. Yes, it is.
8	Q. Okay. That algal Is it an algal mound?
9	A. Algal mound, right.
10	Q. Okay, and that's located almost on the section
11	line, isn't it?
12	A. Almost on the section line.
13	Q. Okay. All right, would you then move to Permian
14	Exhibit Number 4, identify that and review that for the
15	Examiner?
16	A. Okay, this is the brighter-colored map. Exhibit
17	Number 4, we're also looking for This is just a colored
18	map, and you're looking for the darker colors where
19	channels are developed. This is a seismic 3-D map of the
20	Mississippian lime to the Morrow lime. It's an isochron
21	which would show the thicker areas where the sand channels
22	are developed.
23	The black line, the thick black line with the
24	little arrows that goes through that, that would be the
25	proposed axis of the Morrow sand channel.

1	Q. Does that black axis, then, does that intersect
2	with your proposed well location?
3	A. Yes, that's a coincidence of both the
4	intersection of the Morrow channel and a coincidence of the
5	Strawn algal mound.
6	Q. Okay. If I understand it, then, is the Strawn
7	mound you're targeting appears to be limited to the
8	southwest quarter of the northeast quarter and the
9	northwest quarter of the southeast quarter; is that right?
10	A. That's correct.
11	Q. Okay. Does that provide Permian with the best
12	chance of testing the Does this well location provide
13	Permian with the best chance of testing the Morrow sands in
14	the area and yet provide you an alternative in the Strawn
15	formation?
16	A. Yes, it's a very good location.
17	Q. Is this proposed well location, is it essential
18	to your project?
19	A. Yes, it is.
20	Q. And why is that?
21	A. Because of the limited areal extent of the Strawn
22	and then the relatively narrow channels that you encounter
23	in the Morrow.
24	Q. In your opinion, are the Morrow reserves at this
25	particular area adequate to justify a stand-alone well?

1	A. No.
2	Q. Okay. If this unorthodox location was moved,
3	would that jeopardize your project?
4	A. Yes, it would.
5	Q. In your opinion, will the granting of this
6	Application provide the best means of recovering reserves
7	under this property, prevent waste and protect correlative
8	rights?
9	A. Yes, it will.
10	Q. Were Permian Exhibits 3 and 4 compiled by your or
11	under our direction and supervision?
12	A. They were.
13	MR. FELDEWERT: Mr. Examiner, at this time I
14	would move the admission into evidence of Permian Exhibits
15	3 and 4.
16	EXAMINER JONES: Exhibits 3 and 4 will be
17	admitted into evidence.
18	MR. FELDEWERT: And that concludes my examination
19	of this witness.
20	EXAMINER JONES: Thank you.
21	EXAMINATION
22	BY EXAMINER JONES:
23	Q. Mr. Marshall, it looks on Exhibit now why did
24	you have the original location 2550 and 1950, and you
25	moved a little bit to the southeast. Why

We're trying to take the most coincident location 1 Α. 2 of both zones. So you've reprocessed a little bit? 3 Q. Yeah, and this is the geophysicist's 4 Α. interpretation of it. Yeah, I realize that the darkest 5 color is up there right under the lettering. Sometimes you 6 can move those just a little bit and you're still okay. 7 8 Okay, you are not planning on some kind of a Q. potentially deviated Strawn well? 9 10 Α. Not at this time, no. I mean, we're not. Because I was looking at the records in the 11 Q. 12 southeast -- or southwest. They had -- I think they had a 13 deviated Strawn well. I believe that was right. Was that right? 14 Α. Do 15 you remember? 16 MR. FELDEWERT: I don't --17 Q. (By Examiner Jones) It was dry, though? Oh, in the southwest quarter? 18 Α. 19 Q. Yeah. 20 The southwest quarter of the whole section, yes, Α. 21 there was one, yes. 22 Q. And why was that one dry? Because it missed that 23 algal mound? Yes, and -- Yeah, yes, that's correct. 24 Α. 25 MR. FELDEWERT: That's why we don't remember that

31 one. 1 EXAMINER JONES: Nobody remembers their mistakes. 2 Amazing how that works. 3 Q. (By Examiner Jones) If you drill this well and 4 you don't hit that algal mound -- First of all, what does 5 it look like on the logs, the algal mound? Gamma-ray 6 response, for instance? 7 We brought some logs, if you'd like to see it. 8 Α. It's just a -- It curves at about 11,500 feet. You come 9 10 out of the Cisco shales and limes that are -- you know, have a high gamma-ray content, and then it goes immediately 11 to a clean carbonate, limestone. 12 13 Q. Okay. There's micrite and reef material that are mixed 14 Α. up in that material, and when you have these amplitude 15 anomalies like this, typically you have the algal material 16 17 developed, and that's where the porosity is. ο. Okay. So can you do any kind of check shots to 18 -- in your survey -- in your seismic within the well, after 19 you get it drilled, before you set pipe, to just decide 20 exactly where you're at there? Or is that just to 21 determine --22 Well, if it's there, it's there. 23 Α. If it's there, it's there. 24 Q. 25 Right. Α.

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1	Q. If it's not there, you missed it to the
2	southeast; is that right? Or if it's not there
3	A. Oh, I see, you mean if you ran a dipmeter or
4	whatever and thought that you were building up to the
5	southeast, you'd deviate it over there. I would think, you
6	know, it could work that way. But I haven't I've worked
7	this whole Lovington area as far as the Strawn, and I
8	haven't seen anybody deviate a well yet, based on after-
9	drilling information yet.
10	Q. You can't fight your seismic after you get the
11	well TD'd?
12	A. No, this seismic is really good quality
13	Q. Okay.
14	A and we trust it. There's been a lot of wells
15	drilled. This is some data that was on the seismic market
16	that we bought, and there's been a lot of successful wells
17	drilled on this data.
18	Q. Okay. How big a well are you anticipating if you
19	hit this mound, the way the geophysicist and you predict?
20	A. As far as the mound?
21	Q. Yeah, the
22	A. We're estimating about 300,000 barrels, plus the
23	gas, 1000 GOR.
24	Q. And you would get that in what, 20 years? Ten
25	years?

1	A. Yeah, you'd probably get It's been the case on
2	a lot of wells that you recover about 20 or 30 percent
3	estimated ultimate recovery in the first two or three
4	years. It's real good
5	Q. Good economics.
6	A good, flush production, because of the nature
7	of the fractured reservoir, and it is pretty good
8	reservoir.
9	Q. Okay. And the Morrow well, what kind of you
10	say it's not that good a well?
11	A. Well, the closest well to us that's productive
12	out of the Morrow is about three miles to the west, and it
13	was just drilled by Yates and completed by Yates. We don't
14	have the full results of it. It's called the Global well,
15	for instance, and we're estimating that the wells will
16	probably make maybe 1 to 2 BCF by themselves.
17	At today's gas prices that looks pretty good.
18	But, you know, when you discount the cash flow and consider
19	future gas prices, then that's not you know, it's not
20	great.
21	So both of them together make a very viable
22	project.
23	Q. Okay. Are you planning any testing, drill stem
24	testing?
25	A. We will drill stem test both the Strawn and

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1	Morrow and Atoka, if it develops too.
2	Q. Okay. And how will you drill through the Strawn
3	and not damage it?
4	A. That's not a real problem. We don't see a lot of
5	formation damage in the Strawn. You know, you might see
6	more formation damage in the Morrow than in the Strawn.
7	Q. Okay.
.8	A. We've drilled three wells within a five-mile
9	radius for the Strawn. We have not drilled for the Morrow
10	in this area yet, so we do have some experience of it.
11	Q. When you log your wells, do you typically run a
12	lubricator when you log your wells? Open hole logging?
13	A. With the open hole logging, of course, we have a
14	blowout preventer on the drilling rig.
15	Q. An annular?
16	A. Yeah, annular. And I can't tell you the
17	particular configurations that the engineers use. You
18	know, one of the problems is that the tool lengths that we
19	use when we have the combo logs where you combine the
20	neutron density and lateral logs together, the length of
21	those logs can be 60 feet long. And finding a lubricator
22	that tall is pretty difficult.
23	Q. You're aware of the blowout that happened in
24	Carlsbad?
25	A. Yes, sir. We just drilled and completed a Strawn

algal mound well one mile from here --1 2 ο. Yeah. -- called our Chambers well in Section 7, 16-36, 3 Α. and so -- We didn't have any problems at all with it. 4 I don't think I'd be as worried about the Strawn 5 Q. 6 as the Morrow, I guess. 7 Yeah. We're going to take every precaution as Α. 8 far as keeping the hole full and all that you have to do. EXAMINER JONES: Okay. Okay, I can't argue with 9 the geophysics here. David, do you have --10 11 MR. BROOKS: Me neither. EXAMINER JONES: So good luck in your venture. 12 13 THE WITNESS: Thank you very much, appreciate 14 your attention in this matter. 15 MR. FELDEWERT: Mr. Examiner, that concludes our 16 presentation. We ask that the case be taken under 17 advisement and, if at all possible, that an expedited order 18 be issued in this case. 19 EXAMINER JONES: Okay, let's take Case 13,175 under advisement. 20 21 (Thereupon, these proceedings were concluded at 22 9:25 a.m.) I do hereby certify that the foregoing it 23 \* to complete record of the proceedings in the Examiner hearing of Case No. 24 heard by me on\_\_\_\_ 25 \_\_\_\_, Exeminer Oil 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 March 19th, 2004.

STEVEN T. BRENNER CCR No. 7

My commission expires: October 16th, 2006

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