# **NEW MEXICO OIL CONSERVATION DIVISION**

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Examiner Hearing Santa Fe, New Mexico April 1, 1999 -- 8:15 A.M.

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#### STATE OF NEW MEXICO

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ENERGY, MINERALS AND NATURAL RESOURCES CAPARITMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY

THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

APPLICATION OF NEARBURG EXPLORATION

COMPANY, L.L.C., FOR UNORTHODOX GAS WELL )
LOCATION, LEA COUNTY, NEW MEXICO )

CASE NO. 12,151

ORIGINAL

### REPORTER'S TRANSCRIPT OF PROCEEDINGS

#### **EXAMINER HEARING**

BEFORE: MARK ASHLEY, Hearing Examiner

April 1st, 1999

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MARK ASHLEY, Hearing Examiner, on Thursday, April 1st, 1999, 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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# I N D E X

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LEE M. PETERSEN (Geologist)  Direct Examination by Mr. Bruce  Examination by Examiner Ashley	10 16
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#### EXHIBITS

Applicant's	Identified	Admitted
Exhibit 1	6, 11	16
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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:

JAMES G. BRUCE, Attorney at Law 612 Old Santa Fe Trail, Suite B Santa Fe, New Mexico 87501 P.O. Box 1056 Santa Fe, New Mexico 87504

\* \* \*

1 WHEREUPON, the following proceedings were had at 2 \*.m.: 3 EXAMINER ASHLEY: This hearing will come to order 4 for Docket Number 10-99. Please note today's date, April 5 1st, 1999. I'm Mark Ashley, appointed Hearing Examiner for 6 today's cases. 7 (Off the record) EXAMINER ASHLEY: The Division calls Case 12,151. 8 9 MR. CARROLL: Application of Nearburg Exploration 10 Company, L.L.C., for unorthodox gas well location, Lea 11 County, New Mexico. 12 EXAMINER ASHLEY: Call for appearances. 13 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, 14 representing the Applicant. I have two witnesses to be 15 sworn. 16 EXAMINER ASHLEY: Any additional appearances? 17 Will the witnesses please stand to be sworn in? (Thereupon, the witnesses were sworn.) 18 19 CHRIS FLING, 20 the witness herein, after having been first duly sworn upon 21 his oath, was examined and testified as follows: 22 DIRECT EXAMINATION 23 BY MR. BRUCE: 24 Would you please state your name for the record? 0. 25 My name is Chris Fling. I live in Fort Worth, Α.

Texas.

- Q. And who do you work for and in what capacity?
- A. I'm the vice president of land for Range Resources Corporation.
- Q. What is the relationship of Range Resources to Nearburg in this case?
- A. Range Resources is a 50-percent working interest owner in the property.
- Q. Okay, and why is Range appearing here today instead of Nearburg?
- A. Nearburg had another matter that they needed to attend to and asked us to stand in their shoes today.
- Q. Okay, have you previously testified before the Division?
- 15 A. I have not.
  - Q. Would you summarize your educational and employment background for the Examiner?
  - A. I attended the University of Oklahoma, finished in 1979. I also attended the management program at Rice University in Houston, Texas.

I worked for Conoco for nine years, I was in -worked for Pacific Enterprises for four years, all as a
landman. I worked as an independent consultant in oil and
gas exploration and production and refining matters for
four years, and I've been in my current position with Range

Resources for three years. 1 And are you familiar with the land matters 2 involved in this Application? 3 Α. I am. 4 5 And your area of responsibility includes the 0. Permian Basin? 6 It does indeed. 7 Α. 8 MR. BRUCE: Mr. Examiner, I tender Mr. Fling as an expert petroleum landman. 9 EXAMINER ASHLEY: Mr. Fling is so qualified. 10 11 Q. (By Mr. Bruce) Briefly, Mr. Fling, what does the 12 Applicant seek in this case? 13 We seek an unorthodox gas well location in the Α. 14 south half of Section 28, Township 21 South, Range 35 East. Could you refer to Exhibit 1, identify it for the 15 0. Examiner, and tell him about the well's location? 16 Exhibit 1 is a Morrow "B" Sand Production map. 17 Α. 18 It also indicates the acreage that Nearburg and Range 19 jointly own in various different colors. 20 Q. What do the colors indicate? 21 The yellow is acreage that we own jointly. Α. 22 green and blue are acreage that we have under farmout 23 commitment from other companies. 24 The green outline is the 320-acre proration unit 25 for the Range State 28 Com Number 2, proposed location.

Q. What is the footage location of the well? 1 2 Footage location of the well 660 from the south Α. line and 990 from the east line, Section 28. 3 To what depth will this well be drilled? 4 Q. 13,200 feet or the Morrow formation. 5 A. 6 Q. Do you request unorthodox-location approval for 7 all 320-acre gas zones? 8 Α. Yes. 9 0. Looking at Exhibit 1, could you identify --They're not identified on this map, but who are the offset 10 11 lessees? The offset lessees to the east in the west half 12 Α. of Section 27 is the Crescent Porter Hale Foundation. 13 14 own an 80-acre tract in the east half of the southwest quarter. In Section 34, the north half is owned by Yates 15 16 Petroleum. 17 Q. And the only other offset is yellow, which is 18 Range Resources? 19 Α. Correct. 20 Q. Were the offsets notified of this Application? 2.1 Yes, they were. Α. And is the affidavit of notice submitted as 22 Q. 23 Exhibit 2? 24 Α. Yes. 25

Do Yates or the foundation object to this

Q.

#### 8 location? 1 2 Α. They do not. What is Exhibit 3? 3 0. Exhibit 3 are letters from Crescent Porter Hale 4 Α. Foundation and Yates Petroleum Corporation, notifying us 5 6 that they had no objection. 7 Q. Okay. Now, this Application could have been 8 applied for administratively. Why was the matter set for 9 hearing? We have a very quickly approaching deadline, May 10 Α. 1st, 1999, to start a well in the south half of Section 28. 11 12 Q. So you applied for a hearing just to shorten the 13 process? 14 Α. Yes, sir. 15 Because of this drilling deadline, would you like Q. 16 the order to issue as soon as possible? 17 Α. Yes, sir. Were Exhibits 2 and 3 prepared by you or compiled 18 Q. 19 from company business records? 20 Α. Yes, they're compiled from company business records and prepared by either me or Lee Petersen, the 21 22 other individual that's with me this morning.

- Q. And the geologist will also testify about Exhibit; is that right?
  - A. Correct.

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1	Q. Mr. Fling, in your opinion, is the granting of
2	this Application in the interests of conservation and the
3	prevention of waste?
4	A. Yes, sir.
5	MR. BRUCE: Mr. Examiner, I'd move the admission
6	of Exhibits 2 and 3 at this time.
7	EXAMINER ASHLEY: Exhibits 2 and 3 will be
8	admitted as evidence.
9	EXAMINATION
10	BY EXAMINER ASHLEY:
11	Q. Could you explain a little more about why you
12	chose to apply for a hearing as opposed to an
13	administrative approval for this?
14	A. Yes, we The tract that we'll be drilling on in
15	the south half of Section 28 is a tract we have farmed in
16	from Phillips Petroleum Company, and there's a May 1st
17	drilling deadline on that to earn that farmout acreage.
18	MR. CARROLL: Couldn't you have asked for
19	expedited approval of an administrative application?
20	MR. BRUCE: Mr. Examiner, what we were or Mr.
21	Carroll, what we afraid of is, if someone if we applied
22	for it administratively and someone objected. Then it
23	would be set for sometime in late April, and we wouldn't
24	get a final approval before then.
25	MR. CARROLL: Okay.

(By Examiner Ashley) And your deadline is May 1 Q. 1st? 2 3 Α. Yes, sir. 4 EXAMINER ASHLEY: I have no further questions, 5 Mr. Fling. Thank you. 6 THE WITNESS: Thank you. 7 EXAMINER ASHLEY: Mr. Bruce, how does Mr. Fling 8 spell his last name? 9 MR. BRUCE: F-1-i-n-q. 10 LEE M. PETERSEN, 11 the witness herein, after having been first duly sworn upon 12 his oath, was examined and testified as follows: 13 DIRECT EXAMINATION BY MR. BRUCE: 14 15 Q. Could you please state your name for the record? 16 Α. My name is Lee Petersen. I live in Richland 17 Hills, Texas. 18 Q. And who do you work for? 19 I work for Range Resources Corporation. I'm the 20 vice president of geology. 21 0. Have you previously testified before the Division? 22 23 Yes, sir, I have. Α. 24 And were your credentials as an expert petroleum Q. 25 geologist accepted as a matter of record?

11 1 Α. Yes, they were. And are you familiar with geologic matters 2 Q. pertaining to this Application? 3 Α. I am. MR. BRUCE: Mr. Examiner, I tender Mr. Petersen 5 as an expert petroleum geologist. 6 7 EXAMINER ASHLEY: Mr. Petersen is so qualified. 8 THE WITNESS: Thank you. 9 Q. (By Mr. Bruce) Mr. Petersen, what is the primary target of this well? 10 The primary target of this well is the Morrow "B" 11 Α. 12 sand, at about 12,500 feet. Could you refer to Exhibit 1, identify that for 13 Q. 14 the Examiner, and tell him about the production in this 15 area? 16 Exhibit 1 is a production -- cumulative 17 production map of the Morrow "B" sand in the area of the 18 proposed well, and the key wells -- Well, let me say first 19 that all the wells that have produced from the Morrow "B" 20 sand are marked with a red circle. And the key wells to this case are the two Rand Paulson wells in Section 33, 21

And you can see from the map that although these are fairly new wells, drilled in 1998, that the Number 1 well has already made 1.3 BCF of gas and 25,000 barrels of

Township 31 South, 35 East.

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23

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condensate and was still currently making, as of the last available commercial production records, over 5 million cubic feet of gas a day and about 98 barrels of condensate a day. That was the Number 1 well.

The Rand Paulson State 33 Number 2 well, just to the north of the Number 1 well, also in Section 33, has not been on line as long, and after only five months of production has made .7 of a BCF gas and it looks like about 15,000 barrels of condensate, and is also still making a -- producing at a daily rate of over 5 million cubic feet a day, and 102 barrels condensate per day.

The other key well that I'd like to point out that is on the north side of the proposed location in Section 28 is the recently drilled Nearburg Range 28 State Com Number 1 well, in the northeast quarter of Section 28. This well was drilled and tested the Morrow "B" sand, and as we will show shortly in additional exhibits, this well was a dry hole. Although the sand was present, it would not produce in commercial quantities.

- Q. Is that Number 1 well the reason why you are requesting the unorthodox location for this well?
- A. It is. Data obtained from this well, the Number 1 well in Section 28 and the interpretation thereof, is the reason that we feel we need to move the location for the Number 2 well to the east of the standard location, to

obtain the best chance of making a commercial well in the south half of Section 28.

1.5

- Q. What is Exhibit 4, Mr. Petersen -- Excuse me, Exhibit 5? No, that is 4, Mr. Petersen.
- A. Exhibit 4 is a structure map contoured on the top of the Morrow formation in the area. But -- The structure of the Morrow has very little to do with the prospect, but it is to show the regional geology, the fact that in general, the structure on the top of the Morrow formation in the area dips to the south and southwest.
  - Q. And does that have a line of cross-section on it?
- A. It does, it shows cross-section A-A', which illustrates the key wells that we have discussed, plus the proposed location.
- Q. Why don't you move on to that cross-section, Exhibit 5, and discuss it for the Examiner?
- A. Exhibit 5 is a stratigraphic cross-section, A-A', as labeled on Exhibit 4, and Exhibit 5 shows the nature of the Morrow "B" sand in the immediate area of the proposed location.

It shows that the Morrow "B" sand, while continuous across this area, is in fact somewhat lenticular. And you can also see the nature of the porosity and how it changes in a relatively short distance.

What it shows is that the Morrow "B" sand in the

Rand Paulson key wells, State 33 1 and 2 in Section 33, have quite a bit better porosity, although a little bit less thickness, than the Nearburg Range 28 State Com Well in Section 28. While the Range 28 State Com Number 1 well actually found the sand in the correct position, and while the sand was actually thicker than in the key Rand Paulson wells, in fact, the porosity was less and the permeability was much less, and we were unable to make a commercial well at that zone.

- Q. Does the cross-section indicate that you have a strong possibility of hitting the sand at your unorthodox location?
- A. Yes, we believe we have a very strong possibility of encountering the Morrow "B" sand at the proposed location.
- Q. Let's move on to Exhibit 6 and maybe discuss a little bit more in detail how the Number 1 well or the logging from the Number 1 well dictated the move to the east, the Number 2 well.
- A. Exhibit 6 is a net sand isopach of the Morrow "B" sandstone, the same sand that is colored yellow in the cross-section, Exhibit 5, and it shows the lenticular nature of the Morrow B sand. It shows that in general the direction orientation of the sand is from north to south across the area of the proposed well.

And what it shows also is that by moving the location to a nonstandard location, as proposed to the east, that we would be able to get in the very thickest part of the particular sand channel in the Morrow "B".

Also, another reason we would like to move it to the east is because in the Nearburg Range 28 State Com

Number 1 well in the northeast of 28, we ran a Schlumberger

FMI imaging log in that well, and the interpretation of that log indicated that the best sand development and porosity and permeability would be to move the location somewhat to the east, as well as just to the south.

So for that reason and for the interpretation, subsurface interpretation of this net-sand isopach, we are requesting the location.

- Q. In your opinion, is the proposed location necessary to adequately test the Morrow and ensure a reasonable chance of success?
  - A. Yes, I believe so.
- Q. In your opinion, is the granting of this Application in the interest of conservation and the prevention of waste?
  - A. Yes, sir.

- Q. And were Exhibits 1, 4, 5 and 6 prepared by you or under your direction?
  - A. They were.

MR. BRUCE: Mr. Examiner, I'd move the admission of Exhibits 1, 4, 5 and 6.

EXAMINER ASHLEY: Exhibits 1, 4, 5 and 6 will be admitted as evidence.

#### EXAMINATION

#### BY EXAMINER ASHLEY:

- Q. Mr. Petersen, you said that the log that you ran on the Nearburg well said move the location to the south and to the east?
  - A. Yes, Mr. Examiner.
- Q. That was from Nearburg's location, or from the standard location?
- A. If I understand your question right, Mr.

  Examiner, it would be from the standard location.
  - Q. Okay. Could I get you to tell me what the daily production rates are, again, in Section 33 for the two wells, the Rand Paulson wells?
  - A. Yes, sir. Those daily rates, as of my last commercial available records, are, the Rand Paulson State 33 Number 1 well, in the southwest of Section 33, the daily rate is five million and eighty-six cubic feet of gas per day and 98 barrels condensate. And Rand Paulson State 33 Number 2 well, in the northwest quarter of Section 33 is five million one hundred and seventy-eight cubic feet of gas per day and 102 barrels of condensate per day.

1	Q. Thank you. You stated that the Morrow "B" sand
2	is your primary target. What are your secondary targets?
3	A. There are secondary targets in this well of the
4	Wolfcamp limestone and also the Bone Spring.
5	EXAMINER ASHLEY: Okay, I have no further
6	questions, Mr. Petersen. Thank you.
7	THE WITNESS: Thank you.
8	MR. BRUCE: I have nothing further in this case,
9	Mr. Examiner.
10	EXAMINER ASHLEY: There being nothing further in
11	this case, Case 12,151 will be taken under advisement.
12	(Thereupon, these proceedings were concluded at
13	8:40 a.m.)
14	* * *
15	
16	
17	I do hereby certify that the foregoing is
18	the Examiner hearing of the proceedings in
19	heard by me on 4-1 1999
20	Off Conservation Division
21	yrision
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24	
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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 April 2nd, 1999.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 2002