

STATE OF NEW MEXICO  
 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
 OIL CONSERVATION DIVISION

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

CASE NO. 11,669

APPLICATION OF NEARBURG EXPLORATION )  
 COMPANY, L.L.C., FOR AN UNORTHODOX GAS )  
 WELL LOCATION, LEA COUNTY, NEW MEXICO )

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

December 5th, 1996

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, December 5th, 1996, 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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 Examiner Hearing  
 CASE NO. 11,669

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## A P P E A R A N C E S

## FOR THE DIVISION:

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Attorney at Law  
Legal Counsel to the Division  
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Santa Fe, New Mexico 87505

## FOR THE APPLICANT:

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

\* \* \*

1           WHEREUPON, the following proceedings were had at  
2   9:14 a.m.:

3           EXAMINER STOGNER: At this time we'll call Case  
4   Number 11,669.

5           MR. CARROLL: Application of Nearburg Exploration  
6   Company, L.L.C., for an unorthodox gas well location, Lea  
7   County, New Mexico.

8           EXAMINER STOGNER: Call for appearances.

9           MR. CARR: May it please the Examiner, my name is  
10   William F. Carr with the Santa Fe law firm Campbell, Carr,  
11   Berge and Sheridan.

12           We represent Nearburg Exploration Company in this  
13   matter, and I have two witnesses.

14           EXAMINER STOGNER: Any other appearances? Will  
15   the witnesses please stand to be sworn?

16           (Thereupon, the witnesses were sworn.)

17                     DUKE W. ROUSH,  
18   the witness herein, after having been first duly sworn upon  
19   his oath, was examined and testified as follows:

20                     DIRECT EXAMINATION

21   BY MR. CARR:

22           Q. Will you state your name for the record, please?

23           A. Yes, Duke Roush, R-o-u-s-h.

24           Q. Where do you reside?

25           A. Midland, Texas.

1 Q. Mr. Roush, by whom are you employed?

2 A. I'm currently employed by Nearburg Exploration  
3 Company as a consulting landman.

4 Q. Are you working for them under a contract  
5 arrangement?

6 A. Yes, sir.

7 Q. Have you previously testified before the New  
8 Mexico Oil Conservation Division?

9 A. Yes, I have.

10 Q. At the time of that testimony, were your  
11 credentials as a petroleum landman accepted and made a  
12 matter of record?

13 A. Yes, they were.

14 Q. Are you familiar with the Application filed in  
15 this case on behalf of Nearburg?

16 A. Yes, I am.

17 Q. And are you familiar with the status of the lands  
18 in the area surrounding the proposed well?

19 A. Yes, I am.

20 MR. CARR: Are the witness's qualifications  
21 acceptable?

22 EXAMINER STOGNER: They are.

23 Q. (By Mr. Carr) Would you briefly state for Mr.  
24 Stogner what it is that Nearburg Producing Company seeks in  
25 this case?

1           A.    Yes, we're seeking approval of an unorthodox well  
2           location for a well we call the Osudo "36" State Number 1,  
3           to be drilled to the Wolfcamp and Morrow formations,  
4           location of 660 feet from the north and the west lines in  
5           Section 36, Township 20 South, Range 35 East.

6           Q.    And what acreage will be dedicated to this well?

7           A.    The west half of the section.

8           Q.    And this is in the West Osudo-Morrow Gas Pool?

9           A.    That's correct.

10          Q.    What are the well-location requirements and  
11          spacing requirements in this pool?

12          A.    They carry a 320-acre spacing, and the well-  
13          location requirements are 1650 feet from the end line, 660  
14          feet from the side line.

15          Q.    Have you prepared exhibits for presentation in  
16          this hearing?

17          A.    Yes, sir, I have.

18          Q.    Let's go to what has been marked for  
19          identification as Nearburg Exhibit Number 1.  Would you  
20          identify that for Mr. Stogner and review it?

21          A.    Yes, it is a location map showing the proposed  
22          proration unit, the well location and the areas affected by  
23          the encroaching location.

24          Q.    And those are the affected owners who -- on whom  
25          this well is encroaching?

1 A. That's correct.

2 Q. All right, let's go to Exhibit Number 2. Can you  
3 identify that, please?

4 A. Exhibit Number 2 is an ownership plat identifying  
5 the individuals that we will be encroaching upon.

6 Q. And who are those individuals?

7 A. Blake Production Company, Columbine II Limited  
8 Partnership, Redstone Oil and Gas Company, and Exxon.

9 Q. Is Exhibit Number 3 a copy of an affidavit  
10 confirming that notice of this Application and hearing have  
11 been provided to those interest owners in accordance with  
12 OCD rules?

13 A. That's correct.

14 Q. Will Nearburg call a geological witness to review  
15 the technical portion of this case?

16 A. Yes, they will.

17 Q. Were Exhibits 1 through 3 prepared by you or  
18 compiled under your direction?

19 A. Yes, they were.

20 MR. CARR: At this time, Mr. Stogner, we would  
21 move the admission into evidence of Nearburg Exhibits 1  
22 through 3.

23 EXAMINER STOGNER: Exhibits 1 through 3 will be  
24 admitted into evidence at this time.

25 MR. CARR: And that concludes my direct

1 examination of Mr. Roush.

2 EXAMINER STOGNER: Thank you.

3 EXAMINATION

4 BY EXAMINER STOGNER:

5 Q. Mr. Roush, the acreage that is affected in 26 and  
6 25, is that attributable to production at this time?

7 A. Yes, it is HBP.

8 Q. As operator in both sections?

9 A. I'm not sure I understand your question.

10 Q. Who was the operator of those two wells that you  
11 alluded to?

12 A. I believe it's Blake Production Company.

13 Q. Blake, okay.

14 A. Yeah.

15 Q. And are the two wells that you alluded to or  
16 talked about, are they shown in Exhibit Number 1?

17 A. Yes.

18 Q. Do they appear there?

19 A. Yes, they are.

20 Q. The Columbine II Limited Partnership, were they  
21 part of the old Columbus group, the consolidated -- Are you  
22 aware or do you know?

23 A. I have no idea. They're located out of Denver,  
24 Colorado, if that helps.

25 Q. And did you have any personal contacts with



1 Columbine in Denver?

2 A. No, sir, I did not.

3 Q. So no individual to go back with the Company name  
4 or --

5 A. No.

6 EXAMINER STOGNER: Okay, I have no other  
7 questions of this witness. He may be excused.

8 MR. CARR: Mr. Stogner, at this time we call Mr.  
9 Ted Gawloski.

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

13 DIRECT EXAMINATION

14 BY MR. CARR:

15 Q. Would you state your name for the record, please?

16 A. My name is Ted Gawloski.

17 Q. Will you spell your last name, please?

18 A. Sure, G-a-w-l-o-s-k-i.

19 Q. Where do you reside?

20 A. Midland, Texas.

21 Q. And by whom are you employed?

22 A. Nearburg Exploration.

23 Q. And what is your position with Nearburg  
24 Exploration?

25 A. I'm a senior staff petroleum geologist.

1 Q. Mr. Gawloski, have you previously testified  
2 before this Division?

3 A. Yes, I have.

4 Q. At the time of that testimony, were your  
5 credentials as an expert in petroleum geology accepted and  
6 made a matter of record?

7 A. Yes, they were.

8 Q. Are you familiar with the Application filed in  
9 this case on behalf of Nearburg?

10 A. Yes, I am.

11 Q. Have you made a geological study of the area  
12 surrounding the proposed well?

13 A. Yes, I have.

14 Q. Are you prepared to share the results of that  
15 study with Mr. Stogner?

16 A. Yes, I am.

17 MR. CARR: Are the witness's qualifications  
18 acceptable?

19 EXAMINER STOGNER: They are.

20 Q. (By Mr. Carr) Initially, what is the primary  
21 objective in this well?

22 A. There's two primary objectives in the well. The  
23 first one is the Wolfcamp carbonates, approximately 11,500  
24 feet, and the Morrow clastics from about 13,000 to 13,500  
25 feet.

1           Q.    Let's go to what has been marked Nearburg Exhibit  
2   Number 4.  Would you identify and review that, please?

3           A.    Okay, Exhibit Number 4 is a production plat of  
4   the area, in the Osudo area, showing the producing horizons  
5   from the wells, wells greater than 8000 or 9000 feet.

6                    The primary concern here are the wells shown in  
7   light blue, which are the Morrow sand producers, and the  
8   wells shown in orange, which are the Wolfcamp carbonate  
9   producers in the area.

10          Q.    Let's focus first on the Morrow and go to Exhibit  
11   Number 5, your cross-section, and I would ask you to review  
12   the information on that cross-section for the Examiner.

13          A.    Okay.  Exhibit Number 5 is a stratigraphic cross-  
14   section of the Morrow section in the area around our  
15   proposed location, showing the different stratigraphic  
16   markers within the Morrow, and these will be referred to  
17   later in the isopach maps.

18                   One of the things of note here is that the Morrow  
19   produces out of several sand lenses, both out of what I've  
20   defined as the Morrow "B" sands and the Morrow "C" sands.  
21   And our proposed location should tap into sands in both of  
22   these sections.

23          Q.    Proposed location is shown on the exhibit?

24          A.    Yes it is.  It's shown in between the second and  
25   third wells.

1           Q.    Let's go now to Exhibit Number 6, your structure  
2 map on the Morrow.

3           A.    Exhibit Number 6 is a structure map on the top of  
4 the Morrow "B" sands, which is a marker shown on the cross-  
5 section, and it shows a structural closure along a  
6 northwest -- or northeast-southwest-trending fault, and our  
7 proposed location would be right on the edge of that  
8 structural closure, which would further enhance our Morrow  
9 gas production in the area.

10               Also of note on these maps, the wells shown with  
11 the blue Xs on there are producing Morrow wells.

12           Q.    The green block around the spacing unit shows  
13 what?

14           A.    That's the -- Nearburg's prospect acreage. The  
15 red box is the proposed proration unit.

16           Q.    And you used both well control and seismic in  
17 preparing this exhibit?

18           A.    Yes, I have.

19           Q.    And the seismic line comes really right through  
20 the location, does it not, or right to it?

21           A.    Just north of the location, and helped define the  
22 structural closure there.

23           Q.    Let's go to the Morrow isopach, Exhibit Number 7,  
24 and --

25           A.    Exhibit Number 7 is an isopach of the Morrow "C"

1 sands, and this is a net isopach using a density porosity  
2 of 8 percent, which is an effective cutoff of producibility  
3 that we've used out here in this area. And you can see  
4 that on the cross-section, it's below the line marked  
5 Morrow "C" Sands.

6 What this shows is a pronounced, basically north-  
7 south-trending sand trend, channel-sand trend, that goes  
8 through the proposed location in the northwest-northwest.

9 Of note here, the blue hexes again show the  
10 Morrow producers, but for this particular horizon only. So  
11 the well in the south half of 26 does contribute production  
12 from the lower Morrow, the Morrow "C", as well as the wells  
13 in Section 5 and 6 to the south. The wells in 35, Section  
14 35, do not have any contribution from this section of the  
15 Morrow, as well as the well in Section 25. So we want to  
16 tap into this lower Morrow "C" sand and be on trend with  
17 the producing zones.

18 The well in Section 5 to the south is the best  
19 Morrow producer in the area, and it has produced over 25  
20 BCF out of this lower section and the upper Morrow section.

21 Q. Let's now go to Exhibit Number 8, the isopach on  
22 the lower Morrow "B" sand. Would you review that?

23 A. Okay, Exhibit 8 is again a net isopach. This is  
24 on the lower Morrow "B" horizon. There's -- This is a sand  
25 pattern of coalescing sand trends that come together from

1 different source directions, some from the northeast, some  
2 from the northwest, and actually some directed from the  
3 east. And where the best production is out of this section  
4 is where a lot of these sand trends come together, and we  
5 hope to tap into this in our proposed location.

6 Again, the well in Section 5, which is the big  
7 Morrow producer, appears to be at -- where these sand  
8 trends come together, and that's where we feel we could  
9 maximize our potential for this horizon.

10 Q. All right, let's go now to the Wolfcamp and at  
11 this time, Mr. Gawloski, if you would look at Exhibits 9  
12 and 10 together and review those for Mr. Stogner.

13 A. Okay, Exhibit Number 9 is a stratigraphic cross-  
14 section marked C-C', through the Wolfcamp section, pay  
15 section. This is the pay in the Lea Southeast field, which  
16 is the closest Wolfcamp-producing field in the area.

17 Of note in here is the third well, which is the  
18 big Wolfcamp producer, which has produced over 2.4 BCF and  
19 389,000 barrels of oil out of the Wolfcamp zone shown in  
20 the middle part of the cross-section. It produces out of  
21 that carbonate pod, and I've denoted the porosity in the  
22 orange color.

23 These are carbonate debris flows that have been  
24 shut off of a carbonate platform, and if you refer to  
25 Exhibit Number 10, it's that same fault. There's an

1 highland off to the east, and this carbonate was shut off  
2 of that in debris flows.

3 And we -- As we move off to the edge of this, the  
4 well in the north half of Section 35 is on the edge of this  
5 debris flow. It has been recompleted in this horizon, but  
6 it's out of a bunch of thin, porous stringers, and it's a  
7 very poor producer. It's made about -- close to 7000  
8 barrels of oil.

9 So we don't want to get off to the edge of this  
10 and again get a poor producer. We want to maximize our  
11 potential, and we feel being on strike and toward the  
12 source of this debris flow, we feel we can get into the  
13 main pod where the main porosity is, and that's where this  
14 proposed location in that 660-660 location, we feel, will  
15 maximize our potential for this horizon.

16 Q. Summarize briefly your conclusions.

17 A. We feel that the unorthodox location at a 660  
18 from the north and west would maximize our potential for  
19 both the Morrow and the Wolfcamp horizons in this prospect.

20 Q. And, in fact, it is the Wolfcamp that's pulling  
21 the location to the north; is that not right?

22 A. That's correct.

23 Q. In your opinion, will approval of this  
24 Application and the drilling of this well be in the best  
25 interests of conservation, the prevention of waste and the

1 protection of correlative rights?

2 A. Yes, I do.

3 Q. How soon does Nearburg propose to spud the well?

4 A. In January.

5 Q. You'll have a rig available at that time?

6 A. Yes, sir.

7 Q. Were Exhibits 4 through 10 prepared by you?

8 A. Yes, they were.

9 MR. CARR: At this time, Mr. Stogner, we would  
10 move the admission into evidence of Nearburg Exhibits 4  
11 through 10.

12 EXAMINER STOGNER: Exhibits 4 through 10 will be  
13 admitted into evidence.

14 MR. CARR: And that concludes my direct of Mr.  
15 Gawloski.

16 EXAMINATION

17 BY EXAMINER STOGNER:

18 Q. Mr. Gawloski, looking at the Wolfcamp again, the  
19 orange interval on your cross-section, the Wolfcamp  
20 porosity, is that the debris flow that is contributing to  
21 the production from that Number --

22 A. The actual debris flow is the area that is  
23 colored in the blue and dark blue, and within that interval  
24 is the porous zone that is producing.

25 So the actual debris flow is that whole unit, but



1 not the whole unit is contributing to the producibility.

2 Q. Okay. Now, in that debris flow you have a porous  
3 interval which you have marked as orange. Is that a sand,  
4 or what's --

5 A. No, it's just porosity developed within the  
6 carbonate. The zone down below the orange on that main  
7 well is a much tighter carbonate.

8 Q. It appears to be just fairly localized. That's  
9 what you're showing, correct?

10 A. That's correct.

11 Q. Now, you alluded to other production, or -- Let  
12 me rephrase that. Going to your Exhibit Number 10, the  
13 Wolfcamp production to the north, that appears to be in the  
14 upper -- Well, some of it is the upper Wolfcamp, and then  
15 you have some other lower Wolfcamp intervals shown, but  
16 that is not the attributed productive intervals which  
17 you're going after; is that correct?

18 A. That's correct, they're separate reservoirs.

19 Q. Okay. Let's move up -- or down, I should say,  
20 back to the Morrow, in particular Exhibit Number 10.

21 Now, with your other information, your isopach of  
22 the "B" and the "C" intervals, there are other locations  
23 that are less unorthodox, according to the isopach maps,  
24 back to the south and back to the east, that would hit that  
25 -- or I should say intersect that porous interval. But I

1 guess the crux of this goes back to Exhibit Number 6 -- is  
2 that correct? -- in which you're trying to intercept at the  
3 most viable location, at 660, as that shows up on your  
4 Exhibit Number 6?

5 A. That's correct. It's really a factor of all of  
6 the Morrow maps together. When we explore for the Morrow  
7 out here, we try to put ourselves in the best possible  
8 position for all these different horizons and the best  
9 structural position. Some of these zones produce out of  
10 different lenses and stuff, so we try to get into the  
11 maximum thickness that we can.

12 Q. Let me rephrase it. If you had to move this  
13 well, say, 300 feet back to the south and to the east, how  
14 would that possibly affect the Morrow production in this  
15 well or your ability to intersect Morrow-productive  
16 intervals?

17 A. It would affect it structurally more than it  
18 would on the isopachs.

19 Q. And how would it affect it structurally?

20 A. You would be falling offstructure if you move to  
21 the south and east.

22 Q. Now, in your cross-section the well immediately  
23 to the right of your proposed location, on your cross-  
24 section O-O', there shows to be some perforations in that  
25 lower "C" sand. Do you see that?

1 A. Yes, I do.

2 Q. Now, is it your intent to also perforate all  
3 three of those, what you call the upper Morrow "B", the  
4 lower Morrow "B" and then that Morrow "C" sand?

5 A. We would evaluate the well once drilled, and  
6 based upon our log analysis, yeah, we would start from the  
7 bottom of the wellbore and perforate the Morrow, where we  
8 think there's potential pay.

9 Q. Are all those wells compatible to be perforated  
10 through each zone and commingled together?

11 A. Yes, it's commonly done within the Morrow out  
12 here.

13 Q. Okay. Mr. Gawloski, are you a geologist or an  
14 engineer?

15 A. A geologist.

16 Q. I was going to -- well, if you have knowledge --  
17 I don't know. If not, just tell me you don't know.

18 Will the Wolfcamp and the Morrow production, will  
19 that be commingled, or do you propose -- or do you know  
20 of --

21 A. No, we would not commingle that. The one well  
22 that did produce a lot out of the Wolfcamp was dually  
23 completed but not commingled, and that's the only one I  
24 know that was done even that way. The other wells were  
25 recompleted from the Morrow to the Wolfcamp.

1 EXAMINER STOGNER: Are there any other questions  
2 of this witness?

3 MR. CARR: No further questions.

4 EXAMINER STOGNER: You may be excused.

5 Does anybody have anything further in Case Number  
6 11,669?

7 MR. CARR: That concludes our presentation.

8 EXAMINER STOGNER: This case will be taken under  
9 advisement.

10 (Thereupon, these proceedings were concluded at  
11 9:35 a.m.)

12 \* \* \*

13  
14  
15  
16  
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18  
19  
20  
21 I do hereby certify that the foregoing is  
22 a true and correct copy of the proceedings in  
23 Case No. 11669.  
24 5 December 1996  
25 Michael E. Stogner, Examiner  
Oil Conservation Division


# 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 December 7th, 1996.

  
 STEVEN T. BRENNER  
 CCR No. 7

My commission expires: October 14, 1998