STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 1 OIL CONSERVATION DIVISION STATE LAND OFFICE BUILDING 2 SANTA FE, NEW MEXICO 3 17 February 1988 4 EXAMINER HEARING 5 6 IN THE MATTER OF: 7 Application of Nearburg Producing Com- CASE 8 pany for an unorthodox gas well loca- 9314 tion, Eddy County, New Mexico. 9 10 11 12 13 BEFORE: David R. Catanach, Examiner 14 15 16 TRANSCRIPT OF HEARING 17 18 19 APPEARANCES 20 21 For the Division: 22 23 For the Applicant: William F. Carr 24 Attorney at Law CAMPBELL & BLACK, P. A. 25 P. O. Box 2208 Santa Fe, New Mexico 87501

INDEX MARK NEARBURG Direct Examination by Mr. Carr Cross Examination by Mr. Catanach LOUIS MAZZULLO Direct Examination by Mr. Carr EXHIBITS Nearburg Exhibit One, C-101 & C-102 Nearburg Exhibit Two, C-103 Nearburg Exhibit Three, Application Nearburg Exhibit Four, Order Nearburg Exhibit Five, Land Plat Nearburg Exhibit Six, Isopach Nearburg Exhibit Seven, Cross Section

3 1 2 MR. CATANACH: Call Case 9314, 3 which is the application of Nearburg Producing Company for an unorthodox gas well location, Eddy County, New Mexico. 4 5 Are there appearances in this 6 case? 7 MR. CARR: May it please the 8 Examiner, my name is William F. Carr, with the law firm 9 Campbell & Black, P. A., of Santa Fe. We represent Nearburg 10 Producing Company and I have two witnesses. 11 MR. CATANACH: Let the record 12 show that the witnesses have been previously sworn in pre-13 vious cases. 14 You may proceed. 15 MR. CARR: And, Mr. Catanach, 16 this case also was not run in the Artesia paper and therefor 17 it will have to be continued to the 16th. 18 MR. CATANACH: Okay, we'll con-19 tinue this case to March 16th. 20 MR. CARR: And we'd like to go 21 ahead with our evidence at this time. 22 MR. CATANACH: You may proceed. 23 24 25

4 1 2 MARK NEARBURG, 3 being called as a witness and being previously sworn and 4 remaining under oath, testified as follows, to-wit: 5 6 DIRECT EXAMINATION 7 BY MR. CARR: 8 Would you state your full name for 0 the 9 record, please? 10 Mark Nearburg. А 11 Nearburg, by whom are you employed Q Mr. 12 and in what capacity? 13 А Nearburg Producing Company, Vice Presi-14 dent and Land Manager. 15 Have you previously testified before this 0 16 Division and had your credentials as a landman accepted and 17 made a matter of record? 18 А Yes. 19 Q Are you familiar with the application 20 filed in this case and the proposed well location? 21 Yes. А 22 0 Have you made a study of the area? 23 А Yes. 24 MR. CARR: Are the witness' 25 qualifications acceptable?

5 1 MR. CATANACH: They are. Nearburg, would you briefly state 2 0 Mr. 3 what you seek with this application? 4 Nearburg seeks approval of an unorthodox А 5 gas well location in Section 14, Township 20 South, Range 25 6 East, to test the Morrow formation. 7 Are there special pool rules in effect 0 8 for this area or are they governed by statewide rules? 9 Statewide rules. А 10 What well location -- are the well loca-0 11 tion requirements for a well in this area? 12 320-acre spacing, the well located no А 13 closer than 660 feet to the end line and -- no, 660 feet 14 from the side boundary and 1980 feet from the end boundary. 15 Ο Would you refer to what has been marked 16 for identification as Nearburg Exhibit Number One, identify 17 that for Mr. Catanach and review the information contained 18 thereon? 19 This is Nearburg's Form C-101 and 102, А 20 submitted to the Artesia office of the NMOCD. We've asked 21 for approval subject to the order from this hearing. 22 Would you go to page two of that exhibit 0 23 and identify the well location? 24 The well is located 660 feet from А Yes. 25 the west and north lines in the northwest quarter northwest

NAT

102

FORM

6 ۱ quarter. 2 And so the well is in fact unorthodox to-0 3 ward the west. 4 Yes. А 5 And who is the operator to the west? 0 6 А Nearburg. 7 Would you now go to Nearburg Exhibit Num-Q 8 ber Two and identify this? 9 Α Nearburg is re-entering a previously 10 abandoned hole that did not produce that was drilled to 445 11 feet by Santa Fe Exploration Company in 1983. 12 And what is Exhibit Number Two? 0 13 А Exhibit Number Two is the Form C-103 for 14 plugging the well by Santa Fe, which was approved by the 15 Commission. The well was plugged, all the leases terminated 16 that were held by Santa Fe, and Nearburg currently owns 100 17 percent of the proration unit. 18 Would you now identify what has 0 been 19 marked Nearburg Exhibit Number Three and Nearburg Exhibit 20 Number Four? 21 Α Exhibit Number Three is the order of the 22 Commission previously approving this location for Santa Fe's 23 request to drill a Morrow test well. 24 And is Exhibit Number Four the order 0 25 resulting -- entered after a de novo hearing in this matter?

7 1 Yes, it is. Α 2 0 And was a location also approved in that 3 proceeding? 4 Yes. А 5 Was a penalty imposed on the production? 0 6 А Yes. 7 And what was that penalty? Q 8 The operator would be allowed to produce А 9 70 percent of the allowable or the -- since this is not in a 10 prorated area, the capacity of the well. 11 Since the entry of that order has Near-Q 12 burg acquired the offsetting interests? 13 А Yes. 14 Would you now refer to what has been mar-Q 15 ked as Nearburg Exhibit Number Five, identify this, and re-16 view it for Mr. Catanach? 17 А Exhibit Number Five a land plat of the 18 general area showing the proration unit in yellow, the test 19 well location in red, and identifies Nerburg as owning all 20 the offset acreage. 21 0 Now, Mr. Nearburg, the proposed well is 22 only 660 feet from the end line of the north half of Section 23 14. 24 Yes. Α 25 How close to that commoon boundary is the Q

8 1 development in the same formation in the northeast of Sec-2 tion 15? 3 А The well is 660 feet from the east boun-4 dary of Section 15. 5 Nearburg is currently developing the east 6 half of Section 15 with a well located 1755 from the north 7 line and 660 feet from the east line. We're currently dril-8 ling to the Morrow formation. 9 0 So you have a well offsetting the common 10 boundary between the subject acreage and the offsetting ac-11 reage and they're equidistant from the line between the two. 12 А Yes. 13 0 Was notice of this proceeding required to 14 any offset operator? 15 А No. 16 Q And the reason is you are the offsetting 17 operator? 18 А Yes. 19 Q In all directions toward which the well 20 is being moved? 21 А Yes. 22 0 Do you have anything further to add to 23 your testimony? 24 Α No. 25 Were Exhibits One through Five compiled 0

3440N FORM 25016P3 TOLL + HEE IN CALIFORNIA BOU-227-2434 NATIONWIDE BOD-227-0120

9 1 by you? 2 А Yes. 3 At this time, MR. CARR: Mr. 4 Catanach, we would move the admission of Nearburg Exhibits 5 One through Five. 6 MR. Exhibits CATANACH: One 7 through Five will be admitted as evidence. 8 MR. CARR: I have no further 9 questions of Mr. Nearburg. 10 11 CROSS EXAMINATION 12 BY MR. CATANACH: 13 Mr. Nearburg, Order No. R-6933 instituted Q 14 a penalty against the well. Do you know what offset opera-15 tor had objected at that time? 16 А Yes, Nearburg. 17 I take it that you are now under 0 the 18 opinion that there should not be a penalty on the well? 19 Yes, for the reason that we are also de-А 20 veloping the acreage that we're moving toward. 21 Was it my understanding that you're dril-0 22 ling a Morrow well in the east half of Section 15? 23 Yes, it's in the -- it's in the northeast Α 24 -- it's in the east half northeast quarter of Section 15, 25 1755 from the north line and 660 from the east line of Sec-

10 tion 15. 1 That well is currently below 9000 feet. 2 3 Q Okay, that will be an east half dedication. 4 5 А Yes. 6 Q Okay. 7 MR. CATRANACH: I have no further questions of the witness. 8 9 MR. CARR: At this time we call Mr. Mazzullo. 10 11 12 LOUIS MAZZULLO, being called as a witness previously sworn and remaining un-13 14 der oath, testified as follows, to-wit: 15 16 DIRECT EXAMINATION BY MR. CARR: 17 18 Q Will you state your full name for the re-19 cord, please? 20 Α Louis Mazzullo. 21 Mazzullo, are you the same Mr. Maz-0 Mr. zullo who testified in the previous cases and has had your 22 qualifications as a geologist accepted and made a matter of 23 24 record? 25 А I am.

11 1 Q Are you familiar with the application of 2 Mr. Nearburg in this case and the proposed well? 3 Α Yes. I am. MR. CARR: Are the witness' 5 qualifications acceptable? 6 MR. CATANACH: They are. 7 Q Would you refer to what has been marked 8 for identification as Nearburg Exhibit Number Six, identify 9 this and review it, please? 10 А Exhibit Number Six is an Isopach or 11 thickness map of the Morrow section from the top of the Mid-12 dle Morrow or the top of the Clastics, to the base of the 13 Barnett, so it includes the lower and the middle Morrow in-14 tervals. 15 The values assigned to each well are the -- is the thickness of the total section. 16 17 The shaded areas represent those areas 18 that meet a minimum porosity cutoff. In this case it's 15 19 feet of 8 percent porosity. This minimum cutoff is estab-20 lished by production in nearby wells, surrounding wells, and 21 constitutes what is the minimum porosity necessary to make a 22 well productive in the Morrow in this particular area. 23 The Isopach map shows a very -- a thick-24 ening trend that includes wells drilled by Nearburg, the 25 wells being the No. 1 Huber in Section 3, the No. 1-10 And-

BARON FORM 25C16P3 TOHLERFEIN CALIFORNIA 800-227-2434 NATIONWIDE 800-21

1 erson in the northwest of the northeast of Section 10; pre-2 sumably includes the well that we're currently drilling in 3 the northeast quarter of Section 15, and encompasses, we 4 believe, the proposed location, the area around the proposed 5 location.

The structural dip, the regional structural dip in this area is to the southeast, as shown by that
bold dip symbol in the right side of the diagram.

9 Wells with the solid coloration in it are10 productive from the Morrow.

11 The well in Section 2, which has a value 12 of 251 assigned to it, is a well that was drilled by Exxon 13 that has produced the very minimum amount of gas and since 14 been plugged, it was not a very economical well, very mar-15 ginal, as was the No. 1 Rio Siete in Section 11, in the 16 south half of Section 11. Again it was plugged after pro-17 ducing this very little bit of oil and it was -- gas in the 18 Morrow, it was recompleted as a poor Yeso oil well up hole.

800-227

NATIONWIDE

TOL

25C16P3

FORM

19 Those two wells are shown to point out 20 they are outside of the trend of the thickening -- of that 21 the thick Morrow reservoir section that I depicted going 22 through our other wells. They are marginal to that trend 23 and consequently -- and don't contain the minimum amount of 24 porosity that make productive wells in this area and conse-25 quently did not make any gas to speak of.

12

13 1 I believe that on the basis of my regional mapping the optimum porosity trend is included somewhere 2 3 an area outlined by the shaded coloration on this diain gram. 4 0 And what would be the effect of drilling 5 at a standard location? 6 7 Drilling at a standard location would in-А crease our risk of becoming marginal to this trend and dril-8 9 ling a tight, dry hole. Would you now refer to what has been mar-10 0 11 ked as Nearburg Exhibit Number Seven, first identify it, and then review the information on that exhibit for the exam-12 iner? 13 Exhibit Number Seven is a structural А 14 cross section which includes the Nearburg No. 1 Huber 15 in 16 Section 3; proceeds down dip to the No. 1-10 Anderson in Section 10; from there down dip to the proposed location and 17 18 far down dip to a well in Section 24. 19 The areas that are colored in brown refer 20 to tight sands. These are based on drill stem tests and/or 21 production tests or log analysis. 22 Areas that are shaded in blue are pre-23 sumed waterlegs, water-bearing sandstones. 24 Areas that are colored in flashing pink 25 are presumed gas legs, presumed or real gas legs in these

1 same sands.

2 We are -- we see in the No. l Huber and 3 the No. 1-10 Anderson that we're in a very thick -- there's 4 a very thick sequence of very porous and permeable sand that constitutes the major reservoir in both of those wells, both 5 the Anderson and the Huber, with the exception that in the 6 7 Huber we're seeing some evidence of loss of porosity, a little bit of loss of porosity, maybe because we're moving a 8 9 little bit marginal to the trend in one direction or an-10 other. Even though we're in a thick portion of sand, we're 11 getting off of the thickest portion of that sand just enough to tighten the rocks up a little bit, not enough to affedt 12 the producability but enough to be noticeable (unclear). 13 As 14 you could see -- and -- and those are presumably all gas-15 bearing. There's no evidence of a gas/water contact in 16 there.

17 When you proceed down dip from the pro-18 posed location all the way down to Section 24, the sands 19 that are presumably correlative in part to the producing 20 sands up dip are shown by drill stem tests to be tight, 21 whereas, two lower sands that are not correlative to any-22 thing in either one of those producing wells are the -- are 23 the zones that were perforated and potentialed for a million 24 and a half a day.

What we presume to do or propose to do on

25

1 -- at the location is to stay within the trend of the thick-2 est sand as I have determined it from regional analysis of 3 the Morrow in this area, and get up dip of the tight, mar-4 ginal, in this case channel marginal sands that are present 5 down dip, into a more structurally favored position. In 6 that -- in that way structure is important; otherwise these 7 are primarily stratigraphic traps in nature. 8 Mazzulo, in your opinion will a well 0 Mr. 9 at the proposed location produce hydrocarbons from the Mor-10 row formation that otherwise would not be produced? 11 Α Yes. 12 In your opinion will drilling a well 0 and 13 producing well at this location be in the best interest of 14 conservation, the prevention of waste, and the protection of 15 correlative rights? 16 Yes. Α 17 0 Were Exhibits Six and Seven prepared by 18 you? 19 А They were. 20 MR. CARR: At this time we 21 would move the admission of Nearburg Exhibits Six and Seven. 22 MR. CATANACH: Exhibits Six and 23 Seven will be admitted as evidence. 24 MR. CARR: And that concludes 25 my examination of Mr. Mazzullo.

MR. CATANACH: I have no ques-tions of the witness. MR. CARR: We have nothing further. MR. CATANACH: Being nothing further in Case 9314, it will be taken under advisement. (Hearing concluded.)

17 1 2 CERTIFICATE 3 4 BOYD, C.S.R., DO HEREBY Ι, SALLY W. 5 CERTIFY that the foregoing Transcript of Hearing before the 6 Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true, and correct record 7 of the hearing, prepared by me to the best of my ability. 8 9 10 11 Sally W. Boyd Corz 12 13 14 15 16 I do hereby centry that the foregoing is a complete record of the proceedings in 17 the Examiner hearing of Case No. 231 18 heard by me on robrany 17 1988 19 _, Examiner Oil Conservation Division 20 21 22 23 24 25

TAN TAN

800-22

TOLL FREE IN

25C16P3

FORM

1	
1 2 3	STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO
3	2 March 1988
4	
5	EXAMINER HEARING
6	
7	IN THE MATTER OF:
8	Application of Nearburg Producing CASE Company to amend Division Order No. 9314
9	Company to amend Division Order No. 9314 R-6933, as amended, Eddy county, New Mexico.
10	
11	
12	
13	BEFORE: Michael E. Stogner, Examiner
14	
15	TRANSCRIPT OF HEARING
16	IRANSCRIFT OF HEARING
17	
18	APPEARANCES
19	
	For the Division:
20	
21	
22	
23	For the Applicant:
24	
25	

MR. STOGNER: Call next Case Number 9314, which is the application of Nearburg Producing Company to amend Division Order No. R-6933, as amended, Eddy County, New Mexico. This case was heard on February 1988; however, due to an error in the advertisement 17th, this case was continued for today's hearing, but due to another advertisement error in the Artesia paper, this case will be continued and readvertised for March 16th, 1988. (Hearing concluded.)

1 3 2 3 CERTIFICATE 4 5 I, SALLY W. BOYD, C.S.R., DO HEREBY 6 CERTIFY that the foregoing Transcript of Hearing before the 7 Oil Conservation Division (Commission) was reported by me; 8 that the said transcript is a full, true, and correct record 9 of the hearing, prepared by me to the best of my ability. 10 11 12 Sally les, Boyd C32 13 14 15 I do hereby certize that the foregoing is a complete record of the proceedings in 16 the Examiner hearing of Case No. 9314. 17 heard by me on 1988. 18 Examiner **Oil Conservation Division** 19 20 21 22 23 24 25

STOTE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION 1 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 2 16 March 1988 3 EXAMINER HEARING 4 5 6 IN THE MATTER OF: 7 Application of Nearburg Producing CASE 8 Company to amend Division Order No. 9314 R-6933, as amended, Eddy county, New 9 Mexico. 10 11 12 BEFORE: David R. Catanach, Examiner 13 14 15 TRANSCRIPT OF HEARING 16 17 18 APPEARANCES 19 20 For the Division: 21 22 23 24 For the Applicant: 25

MR. CATANACH: Call next 9314. Application of Nearburg Producing Company to amend Division Order No. R-6933, as amended, Eddy County, New Mexico. This case was heard on February 17th and had to be readvertised. Are there appearances in this case? If not, this case will be taken under advisement. (Hearing concluded.)

	3
1	
2	
3	CERTIFICATE
4	
5	I, SALLY W. BOYD, C.S.R., DO HEREBY
6	CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me:
7	
8	that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.
9	or the hearing, prepared by me to the best of my ability.
10 11	
12	
13	Sally W. Boyd CSTZ
14	
15	
16	
17	do hereby construct
18	I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of C
19	heard by me on Alarda No. 9314,
20	- Handk (at 1
21	Oil Conservation Division
22	
23	
24	
25	