STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION 1 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 2 17 February 1988 3 EXAMINER HEARING 4 5 6 IN THE MATTER OF: 7 Application of Nearburg Producing Com- CASE pany for an unorthodox oil well loca-9312 8 tion and a nonstandard oil proration unit, Lea County, New Mexico. 9 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 For the Applicant: William F. Carr Attorney at Law 24 CAMPBELL & BLACK, P. A. P. O. Box 2208 25 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 Cross Examination by Mr. Catanach EXHIBITS Nearburg Exhibit One, C-101 & C-102 Nearburg Exhibit Two, Land Map Nearburg Exhibit Three, C-101 & C-102 Nearburg Exhibit Four, Diagram Nearburg Exhibit Five, Waiver Nearburg Exhibit Six, Letters Nearburg Exhibit Seven, Structure Map Nearburg Exhibit Eight, Cross Section

3 1 CATANACH: Call Case 9312, MR. 2 the application of Nearburg Producing Company for an unor-3 thodox oil well location and a nonstandard oil proration 4 unit, Lea County, New Mexico. 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 Camp-9 bell & Black, P. A., of Santa Fe. We represent Nearburg 10 Producing Company. I have two witnesses and I would request 11 that the record reflect that they have already been sworn 12 and remain under oath. 13 MR. CATANACH: The record will 14 reflect that, Mr. Carr. 15 MR. CARR: At this time I would 16 call Mr. Nearburg. 17 18 MARK NEARBURG, 19 being called as a witness, having been previously sworn and 20 remaining under oath, testified as follows, to-wit: 21 22 DIRECT EXAMINATION 23 BY MR. CARR: 24 Q Will you state your full name and place 25

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   of residence, please?
1
                       I'm Mark Nearburg, Dallas, Texas.
             A
2
             Q
                       By whom are you employed and in what cap-
3
   acity?
4
                        Nearburg Producing Company, Vice Presi-
             Α
5
   dent, Land Manager.
6
             Q
                       Have you previously testified before this
7
   Division and had your credentials as a landman accepted and
8
   made a matter of record?
9
             А
                        Yes.
10
             Ο
                        Are you familiar with the application
11
   filed in this case?
12
             А
                       Yes.
13
             Q
                        Have you made a study of the subject
14
   area?
15
             А
                       Yes.
16
                                 MR.
                                        CARR:
                                              Are
                                                    the witness'
17
   qualifications acceptable?
18
                                  MR. CATANACH:
                                                 They are.
19
             Q
                       Mr. Nearburg, will you briefly state what
20
   is being sought by this application?
21
                       Nearburg seeks approval of the unorthodox
             А
22
   oil well location and nonstandard oil proration unit in Sec-
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   tion 19, Township 16 South, Range 37 East, for a Strawn test
24
   well.
25
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5 And what pool will this well be drilled Q 1 to? 2 This will be drilled in the Northeast А 3 Lovington Pennsylvanian Pool. 4 Are there special pool rules in effect 0 5 for this pool? 6 Yes, 80-acre proration units and wells to А 7 be located within 150 feet of the center of a quarter quar-8 ter section. 9 0 Have you prepared certain exhibits for 10 introduction in this case? 11 Α Yes. 12 Would you refer to what has been marked Q 13 as Nearburg Exhibit Number One, idnentify that and review 14 the information thereon for Mr. Catanach? 15 This is Nearburg's C-101 and 102 submit-А 16 ted to the Hobbs NMOCD office. 17 The application has been made subject to 18 the order resulting from this hearing. 19 Has been approved subject --Q 20 Has been approved subject to that. А 21 Would you refer to the second page of Q 22 this exhibit? 23 This is our C-102 plat showing the А well 24 location and the cross hatched area representing the 25 non-

6 1 standard proration unit. 2 0 What is the size of this nonstandard 3 unit? 4 А The north/south direction is 13 5 1,322.3 feet. The east/west direction is 1,659.9 feet. 6 0 And how many acres do you propose to de-7 dicate to the well? 8 50.35 acres, which is Lot 4. А 9 Would you refer to what has been marked 0 10 for identification as Exhibit Number Two, a plat, identify 11 this and review the information on that plat for Mr. Cata-12 nach? 13 А This is a land map of the general area. 14 proration unit is indicated in yellow and the test well Our 15 location is indicated by the red dot. This map shows off-16 setting ownership and additionally outlined in orange are 17 two nonstandard proration units previously drilled by Getty 18 Oil to the Strawn formation. 19 Would you review the offsetting owners to 0 20 the proposed --21 Yes. Α 22 -- unorthodox well location? 0 23 In the southeast quarter southwest A Yes. 24 quarter Nearburg controls 62 percent working interest. 25 In the north half northwest quarter of

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7 Section 30 Tenneco owns the northwest northwest quarter. 1 Nearburg has a farmout from Tenneco covering the northeast 2 quarter northwest quarter. 3 In Section 25, Township 16 South, Range 4 East, Cities Service -- should I go through that even 36 5 though it's not --6 Yes. 0 7 Okay, Cities Service owns the northeast Α 8 quarter northeast quarter. 9 The south half, or the southeast quarter 10 southeast quarter, Section 24, 16 South, 36 East, is con-11 trolled by Nearburg under farmout from Yates Petroleum, et 12 al. 13 The 40 or the 50.4 acres due north of our 14 proration unit, which is Lot 3 of the subject Section 19, is 15 owned by Cities Service who has waived all objection to our 16 location. 17 The acreage in the northeast guarter, 18 southwest quarter of Section 19 is owned by Nearburg. 19 Now you've indicated that the two prora-Q 20 tion units outlined in orange are Getty proration units. Do 21 you know the number of acres dedicated to those two wells? 22 Α Yes. The acreage in Lot 2, which is the 23 southwest quarter northwest quarter is a 50.4 net acres ap-24 proximately, gross net. 25

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8 The location in the northeast guarter 1 2 northwest quarter is a standard -- is a nonstandard 40-acre 3 unit. Would you now go to what has been marked 4 0 for identification as Nearburg Exhibit Number 5 Three and identify that, please? 6 7 Yes. This is a copy of Form C-101 А and 102 from Southwest Production Corporation covering a well 8 9 originally drilled in the northeast quarter southwest 10 quarter of Section 19, which produced from the Strawn formation to abandonment approximately 160,000 barrels of 11 oil. 12 Q And what acreage is dedicated to that 13 well? 14 purpose of this exhibit is to 15 А The show 16 that the east half southwest quarter was included in that proration unit and it is our position that by virtue of the 17 18 production from this well the southeast southwest quarter 19 has suffered significant drainage. 20 0 Will you present engineer -- geological testimony in support of that premise? 21 22 А Yes. 23 0 Now would you move to what has been marked 24 as Nearburg Exhibit Number Four and review this for Mr. Cat-25 anach?

9 1 Α Yes. Because of the oversized lot we 2 thought it would be helpful to mark out the exact footages 3 and how far we were nonstandard. 4 The green X is the test well location. 5 We are actually only 20 feet nonstandard on an east/west 6 axis. 7 0 And how much nonstandard are you on the north/south axis? 8 9 Α And on the north/south we are 189 feet 10 nonstandard. 11 So, really, the nonstandard movement is to the north where Cities has waived an objection. 12 And to the northeast that is acreage own-13 Q ed by Nearburg --14 А 15 Yes. 16 -- is that correct? Would you identify 0 Nearburg Exhibit Number Five, please? 17 18 Α Yes. I'd like to make one other comment 19 about Exhibit Number Four. 20 All right. Q 21 А I'd like to point out that even with our 22 nonstandard location we're still 659.9 feet from the east 23 line of that Lot 4, which is more than the standard setback required from a leaseline. 24 25 Q So again that shows that your encroach-

10 ment is to the north. 1 А Yes. 2 Would you identify Exhibit Number Five? 0 3 This is the waiver from Cities Service to А 4 our nonstandard proration unit and unorthodox location. 5 Q Would you now go to Exhibit Number Six 6 and identify that, please? 7 А These are the letters mailed to offset 8 operators and owners noticing the hearing. 9 And this includes the interest owners in 0 10 the southwest quarter --11 A It includes owners in the southeast 12 quarter southwest quarter. 13 Q It also includes the owners in the 14 southwest quarter of Section 19. 15 Α Yes. 16 Okay. Do you have anything further 0 to 17 add to your testimony? 18 А No. 19 Q Were Exhibits One through Six prepared by 20 you or compiled under your direction and supervision? 21 Yes. А 22 MR. CARR: At this time, Mr. 23 Catanach, we would move the admission of Nearburg Exhibits 24 One through Six. 25

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11 MR. CATANACH: Exhibits One 1 through Six will be admitted into evidence. 2 3 CROSS EXAMINATION 4 BY MR. CATANACH: 5 Nearburg, the well drilled by South-0 Mr. 6 western or Southwest Production Company --7 А Yes. 8 That was in the northeast quarter of 0 the 9 southwest quarter? 10 А Yes. 11 And that had dedicated to it the Ο east 12 half of the southwest quarter? 13 Α Yes, which included the southeast quarter 14 southwest quarter. 15 And that -- is that well plugged now? Q 16 That well has been plugged and abandoned. А 17 The prior leases are no longer committed to that well and, 18 as I stated, Nearburg owns approximately 62 percent working 19 interest or controls 62 percent working interest in the 20 21 southeast quarter southwest quarter. The acreage underlying the drill site for 22 this Monteith Well is owned 100 percent by Nearburg at this 23 time. 24 Let's see, is your geologist going to 25 Q

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12 1 testify to the reason for the unorthodox location? 2 Yes. А 3 MR. CATANACH: I don't have any 4 more questions at this time. 5 MR. CARR: At this time we call 6 Louis Mazzullo. 7 8 LOUIS MAZZULLO, 9 being called as a witness and having been duly sworn and re-10 maining under oath, testified as follows, to-wit: 11 12 DIRECT EXAMINATION BY MR. CARR: 13 14 0 Would you state your full name for the 15 record, please? 16 My name is Louis Mazzullo. А 17 Mr. Mazzullo, by whom are you employed? Q 18 I'm employed -- I'm a geological consul-А tant on retainer to Nearburg Producing Company. 19 20 0 Are you familiar with the application 21 filed in this case and the subject area? 22 А I am. 23 Have your credentials as a geologist been Ö 24 presented to the Division, accepted, and made a matter of 25 record?

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13 They have. 1 А MR. CARR: witness' 2 Are the 3 qualifications acceptable? MR. CATANACH: 4 They are. Mazzullo, in the proposed well, 0 Mr. 5 how 6 important is structure in determining whether or not the well in fact will be a success? 7 8 А Structure is important in order to gain 9 structural advantage onto flank wells in the individual patch reefs that constitute the reservoir in this particular 10 area. 11 Would you refer to what has been marked 12 Q as Nearburg Exhibit Number Seven, identify that, and review 13 it for Mr. Catanach? 14 Exhibit Number Seven is a structure A 15 map that's drawn on top of the Strawn limestone, the Strawn 16 17 being the reservoir interval in this area. 18 The regional dip shown by the contours is to the northeast in this area on the Strawn. 19 20 The shaded areas refer to fairways; that 21 is, areas that are potentially productive from the Strawn. 22 All the solid black circles are in fact Strawn wells. 23 The continuity of these -- of these 24 shaded areas does not imply that this is all one big reservoir because, as you probably know from other testimony from 25

this area, the Strawn is in fact comprised of a series of separate and distinct smaller patch reefs, so, for example, this long -- elongated, shaded area shown on the map passing through our proposed location is probably comprised of at least three or four separate Strawn reservoirs.

6 Q Was this location based on your recommen-7 dation?

8 It was based on the recommendation А Yes. 9 that we would want to get up dip of the production which was 10 established in the Monteith Well in the northeast of the 11 southwest of this section. We wanted to get far enough up 12 dip of that well to pick up a better structural and probably 13 porosity advantage over that well.

14 Q In essence what you're saying is, is it 15 not, that you're trying to balance two competing factors. 16 You're trying to get up structure and yet stay as close to 17 the offsetting well as possible?

18 and the reason for this is because А Yes, 19 individual patch reefs in the Strawn are very small the in 20 areal extent and as we know from experience and as you've 21 probably heard time and again from this area, it doesn't 22 take very much -- you can get a couple of 100 feet away from 23 a productive well and be totally out of the productive 24 facies in the Strawn.

So we want to get -- we want to gain a

25

1 structural advantage on that well which we think is producing from the same zone we're going to hit at the location 2 3 but we don't want to get too far away from it. 4 In your opinion could the well be drilled Q 5 at the standard location? 6 The standard location? Yes, it could be, Α 7 certainly could be. 8 And what would the effect of that be? 0 9 The effect of that is you're increasing А 10 your risk of drilling a dry hole the further you get away from the established production. 11 Would you refer to what's been marked for 12 0 identification as Nearburg Exhibit Number Eight, identify 13 14 that, and review it for Mr. Catanach? 15 Α Okay. Exhibit Number Eight is a line of 16 cross section which is indexed on Exhibit Seven by the red 17 line and it runs from the northwest to the southeast and 18 through the proposed location. 19 So it starts off in Section 13 to the 20 northwest, proceeds into the northwest quarter of Section 21 19, which is the subject section, to the southwest quarter 22 and that productive Monteith Well, and then through our 23 proposed location and then down dip into a dry -- into a 24 non-Strawn productive well in the southeast, and then into 25 another productive Strawn well in the next section.

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1 What this is showing is the latter -- the 2 verticxal displacement of the various zones that pay from 3 the Strawn in the area. For example, to the north the pro-4 ducing zone in the wells to the north is actually strati-5 graphically lower than the producing zone in the well that 6 immediately offsets our proposed location. So what we're 7 assuming here is that by gaining structural advantage in 8 this area and structure not only -- in this area structure 9 not only is a regional structure but it also reflects what 10 may be building up in the Strawn immediately below. We gain 11 -- we hope to gain not only structural advantage but we also 12 aim -- intend to gain stratigraphic advantage by intersec-13 ting a thicker section of the zone that pays from the Mon-14 teith well. 15 And then as you go towards the east you

16 get out of it right away. You drop off into the southeast 17 quarter where the well is not productive from the Strawn, 18 the Strawn is tight.

19 And then when you get into the next sec20 tion you're producing from the Strawn but -- but again from
21 a zone that's stratigraphically lower than what we propose
22 to intercept at our location.

23 Q Mr. Mazzullo, do you believe that produc24 tion from the subject well should be restricted or penalized
25 due to its unorthodox location?

17 1 No, I don't. А 2 0 Other than as provided by the rules due 3 to the nonstandard unit. 4 Α Yes. yes. 5 Q What is the status of the current well? 6 А The well is currently drilling and it 7 should be at approximately 5000 foot depth this morning. 8 0 And you advised the District Office of 9 the Oil Commission of your plans and they are aware that the well is being drilled. 10 11 Α Yes, they are. Do you believe that granting the applica-12 Q tion will be in the best interest of conservation, the pre-13 14 vention of waste, and the protection of correlative rights? 15 Yes. Ά 16 Q Were Exhibits Seven and Eight prepared by 17 you? 18 A They were. 19 MR. At this time, CARR: Mr. 20 Catanach, we would move the admission of Nearburg Exhibits 21 Seven and Eight. 22 MR. CATANACH: Exhibits Seven 23 and Eight will be admitted into evidence. 24 0 Mr. Mazzullo, does Nearburg request that 25 this order be expedited?

18 1 А Yes, they do. 2 That concludes my direct examination of Q 3 Mr. Mazzullo. I have no more questions of Mr. Mazzullo. 4 5 CROSS EXAMINATION 6 BY MR. CATANACH: 7 0 Are these the same type of algal mound 8 structures that are found in some of the other Strawn Pools 9 in this area? 10 А Yes, they are. 11 And you believe that you'll be producing 0 12 out of the same mound that the Monteith well is producing? 13 Α That's what I'm hoping, yes. 14 MR. CATANACH: I have no fur-15 ther questions of the witness. 16 CARR: MR. And, Mr. Mazzullo, 17 the Monteith well is no longer producing, is it? 18 Yeah, it produced to abandonment, А to 19 abandonment. It's made -- what did we finally -- 140,000, 20 140,000 barrels of oil before it was abandoned. 21 MR. CARR: I have nothing fur-22 ther. 23 MR. CATANACH: There being no-24 thing further in Case 9312 it will be taken under advise-25 ment.

(Hearing concluded.)

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19 1 CERTIFICATE 2 3 SALLY W. I, BOYD, C.S.R., DO HEREBY 4 CERTIFY that the foregoing Transcript of Hearing before the 5 Oil Conservation Division (Commission) was reported by me; 6 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 Survey W. Bryd Cisc 12 13 14 15 16 I do hereby certify that the foregoing is a complete record of the proceedings in 17 the Examiner hearing of Case No. 93/2, 18 heard by me on February 17, 1983. 19 Examiner Oil Conservation Division 20 21 22 23 24 25

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