

1 STATE OF NEW MEXICO
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
3 OIL CONSERVATION DIVISION
4 STATE LAND OFFICE BUILDING
5 SANTA FE, NEW MEXICO

6 22 November 1988

7 EXAMINER HEARING

8 IN THE MATTER OF:

9 Application of Nearburg Producing Company for a non-standard oil pro- CASE
10 ration unit, Lea County, New Mexico. 9533

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13
14 BEFORE: Michael E. Stogner, Examiner

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17 TRANSCRIPT OF HEARING

18
19 A P P E A R A N C E S

20 For the Division: Robert G. Stovall
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22 Legal Counsel to the Division
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1 MR. STOGNER: Okay, I'll call
2 next Case Number 9533, which is the application of Nearburg
3 Producing Company for a nonstandard oil proration unit, Lea
4 County, New Mexico.

5 I'll call for appearances.

6 MR. HALL: Mr. Examiner, Scott
7 Hall from the Campbell & Black law firm, Santa Fe, on be-
8 half of the applicant, Nearburg Producing Company, with two
9 witnesses this morning.

10 MR. STOGNER: Are there any
11 other appearances in this matter?

12 Will the witnesses please
13 stand and be sworn in?

14
15 (Witnesses sworn.)

16
17 MARK NEARBURG,
18 being called as a witness and being duly sworn upon his
19 oath, testified as follows, to-wit:

20
21 DIRECT EXAMINATION

22 BY MR. HALL:

23 Q For the record please state your name
24 and place of residence.

25 A Mark Nearburg, Midland, Texas.

1 Q Mr. Nearburg, by whom are you employed
2 and in what capacity?

3 A Nearburg Producing Company, Land Mana-
4 ger.

5 Q And you've previously testified before
6 the Division and had your credentials accepted as a matter
7 of record?

8 A Yes.

9 Q Are you familiar with the subject appli-
10 cation and the proposed well?

11 A Yes.

12 MR. HALL: Mr. Examiner, are
13 the witness' credentials acceptable today?

14 MR. STOGNER: Mr. Nearburg's
15 credentials are acceptable.

16 Q Mr. Nearburg, if you would, briefly sum-
17 marize what it is Nearburg requests by this application.

18 A Nearburg requests the approval of a
19 Strawn -- standard Strawn location on a nonstandard 40-acre
20 proration unit to test the Strawn formation in the
21 Lovington Penn Northeast Pool.

22 Q And you're familiar with the pool rules?

23 A Yes, 80 acres with wells located within
24 150 feet of the center of a quarter quarter section.

25 Q All right. Let's look at what's been

1 marked as Exhibit One, if you'd identify that, please, sir.

2 A This is a plat prepared by John West
3 Surveyors showing the location of the well and its footages
4 from the north and west lines.

5 Q And what are those footage locations?

6 A 1900 from the north line and 2400 feet
7 from the west line.

8 Q Where is the well location with respect
9 to the center of that quarter quarter?

10 A It's within 150 feet of the center of
11 the quarter quarter section. Please note that Lots 1, 2, 3
12 and 4, which are the west half west half of the section are
13 over-size. They are 1673.8 feet east to west instead of
14 1320 feet.

15 Q All right. Let's look at Exhibit Two,
16 if you'd identify that, please, sir.

17 A Exhibit Two is a land map showing opera-
18 tors, Strawn wells and the proposed proration unit and test
19 well location.

20 Q And does Nearburg operate other Strawn
21 locations in the area?

22 A Yes. We operate the Soledad 19 No. 1,
23 which is producing on a west half southwest quarter unit
24 and we also operate the Monteith State Well due west of the
25 proposed location.

1 Q Briefly, why are you seeking an unortho-
2 dox location for this well?

3 A As the geologic evidence will show, this
4 well can be drilled on the 40-acre spacing. The Texaco
5 Monteith Well to the north is drilled on 40 acres. The
6 Monteith State was also drilled on 40-acre spacing; there-
7 fore there -- the only spacing unit to drill is the
8 40-acres which we propose.

9 Q All right, in your view should the unor-
10 thodox location application be granted, should the produc-
11 tion from the subject well be restricted or penalized at
12 all?

13 A Because of the risk we're taking and as
14 the geologic evidence will show, we feel we should be al-
15 lowed to produce up to the allowable if we find it.

16 Q All right. Let's look at Exhibit Number
17 Six, if you would, please, sir. Is Exhibit Six a copy of
18 the affidavit you've directed your counsel to send out to
19 the affected interest owners?

20 A Yes. This notice was given to OXY USA,
21 offset owner to the east, and to Texaco, offset operator to
22 the north. Nearburg operates all other offset acreage.

23 Q All right. In your view do you believe
24 that granting the application will be in the interest of
25 conservation, the prevention of waste and protection of

1 correlative rights?

2 A Yes.

3 Q Is Nearburg asking for an expedited
4 order for this well?

5 A Yes, we would appreciate that.

6 Q All right. Do you have anything fur-
7 ther you wish to add?

8 A No.

9 MR. HALL: We'd move the ad-
10 mission of Exhibits One, Two and Six at this time.

11 MR. STOGNER: Exhibits One,
12 Two and Six will be admitted into evidence.

13

14

CROSS EXAMINATION

15 BY MR. STOGNER:

16 Q Mr. Nearburg, let's refer to Exhibit
17 Number Two. That's that map. Now you said that the two
18 wells shown in the northwest quarter of Section 19 are
19 spaced on 40 acres, is that correct?

20 A That's correct.

21 Q And is that in the Northeast Lovington
22 Pool?

23 A Yes.

24 Q And do you have the order numbers for
25 those?

1 A No, I do not.

2 Q Were they done administratively or did
3 they go to hearing?

4 A I've not looked at those orders. I just
5 know that they have been producing on the 40-acre units.
6 I'd like to point out the Monteith State, that's an
7 oversized lot. It's about a 50-acre unit, 50.3 acres.

8 Q Now the Monteith, is that -- is that a
9 well that Nearburg operates?

10 A The Monteith State is to the west. We
11 just recently purchased that from Skelton Oil.

12 Q Okay, and how about the well just north
13 of it?

14 A That's operated by Texaco. The previous
15 -- it was drilled by Getty and is now owned by Texaco.

16 Q Now both of these wells are spaced on
17 40, give or take --

18 A Yes.

19 Q -- ten acres. Are they getting a full
20 allowable?

21 A They -- their production has declined
22 severely and and I don't -- their production is way down.
23 Mr. Mazzullo can testify as to production.

24 I'd need to see the orders to see if
25 they were granted a full allowable.

1 Q So you don't know if they received a
2 full allowable in those orders.

3 A Right.

4 Q Okay.

5 MR. STOGNER: I have no fur-
6 ther questions of Mr. Nearburg at this time.

7 Are there any other questions
8 of this witness?

9 MR. HALL: No, sir.

10 MR. STOGNER: He may be ex-
11 cused.

12 Mr. Hall.

13

14 LOUIS J. MAZZULLO,

15 being called as a witness and being duly sworn upon his
16 oath, testified as follows, to-wit:

17

18 DIRECT EXAMINATION

19 BY MR. HALL:

20 Q For the record please state your name
21 and place of residence.

22 A My name is Louis Mazzullo. I live in
23 Midland, Texas.

24 Q Where are you employed, Mr. Mazzullo?

25 A I'm an independent geological consultant

1 and I'm working on behalf of Nearburg Producing Company.

2 Q And are you familiar with the subject
3 application and proposed well?

4 A Yes, I am.

5 Q And have you previously testified before
6 the Examiner and had your credentials accepted?

7 A I have.

8 MR. HALL: Are the credentials
9 -- are the witness' credentials acceptable today?

10 MR. STOGNER: They are.

11 Q Mr. Mazzullo, have you prepared certain
12 exhibits in conjunction with your testimony today?

13 A Yes, I have.

14 Q Let's look at Exhibit Number Three, if
15 you'd identify that and explain what's intended to reflect.

16 A Exhibit Number Three is a structure map
17 drawn on the top of the Strawn formation, which is the for-
18 mation that produces locally here in the Lovington North-
19 east Pool.

20 The structure map was drawn on the basis
21 not only of subsurface data provided by the wells, the
22 wells you can see on the cross -- on the map, but also by a
23 series of seismic lines that were either shot or purchased
24 by Nearburg Producing Company. These are indicated by the
25 lines that are shaded in yellow, seismic control.

1 The seismic top of the Strawn formation
2 is relatively easy to pick following standard seismic pro-
3 cedures that are used commonly in this area. We've been
4 able to to show that in the vicinity of the proposed loca-
5 tion, which is indicated by the blue dot, the blue arrow,
6 that there is subtle structural nosing or subtle structural
7 closure, perhaps, associated with this location. As is
8 commonly the case in the Strawn formation in this area,
9 this subtle nosing may be an indication of local carbonate
10 build-up associated with the reef systems that produce out
11 of the Lovington Northeast Field, and vicinity.

12 We believe that this subtle structural
13 nosing is indicative of such a relief in the underlying
14 Strawn formation, perhaps in the order of 45 feet in excess
15 of any of the wells around it.

16 Q All right, let's turn to Exhibit Four,
17 if you would identify that, please, sir.

18 A Exhibit Number Four is an isopach or a
19 thickness map of the Strawn limestone, not including the
20 underlying sand that's sitting on top of the Atoka shale.
21 The isopach of the Strawn limestone was drawn, again, not
22 only from the subsurface data provided by the numerous well
23 logs, but also on the basis of an isopach -- of a isochron
24 map, or a seismic isopach map that was provided by a con-
25 tract seismologist, geophysicist. I've taken the geophysi-

1 cal data and incorporated the geological data to come up
2 with this interpretation.

3 What the map shows is that there's a
4 general thickening of the Strawn limestone from west to
5 east across this area, Section 19. Again the blue dot
6 represents our proposed location.

7 It also shows in a series of different
8 color codes the numerous separate carbonate reef build-ups
9 that are associated within the Strawn section. The impli-
10 cation -- the color, the different colors imply that the
11 carbonate build-ups are at different stratigraphic levels
12 in the Strawn formation, which I'll be able to show you to
13 some extent in the next exhibit.

14 The proposed location lies at a local
15 build-up, seismic, seismically defined local carbonate
16 build-up that's common to the Monteith State Well that
17 Nearburg operates due west of the proposed location.

18 It's also common to a well to the north-
19 west that has produced in excess of 380,000 barrels of oil
20 and is currently in, probably, in the last months of prod-
21 uction, as far as I could tell.

22 It offsets a well to the south that had
23 produced about 147,000 barrels of oil that's currently
24 plugged.

25 And it's also part of the same reef com-

1 plex that Nearburg's Soledad State 19-M No. 1 in the
2 southwest quarter produces from. This is all -- these, the
3 relationship among these wells is apparent from the logs.
4 Whether or not there's true connection between or among
5 some of these wells is another matter, but it's probably
6 safe to assume that since they appear to develop porosity
7 at about the same stratigraphic level, the chances are that
8 they're producing out of a similar carbonate build-up.

9 To the east the little pinkish, red
10 coloration denotes a Strawn carbonate build-up that's even
11 lower in the section.

12 To the west the darker purple coloration
13 implies a build-up that develops further up in the section,
14 so we're looking to develop within a carbonate pod that,
15 hopefully, develops up to 45 feet of structural relief over
16 any of the surrounding wells. This gain in structural
17 relief will, hopefully, enable us to encounter more of a
18 reservoir section above the levels that have been produced
19 previously in any of these other wells.

20 Q All right, let's turn to Exhibit Five.
21 If you would, please, sir, identify Exhibit Five.

22 A Exhibit Five is a stratigraphic cross
23 section, a west to east stratigraphic cross section, label-
24 ed B-B', which is shown on both the isopach and the
25 structure map exhibits that I've shown you previously.

1 The cross section is hung at the top of
2 the Atoka shale marker, which is indicated by the brown
3 shading. I prefer to hang these cross sections from a
4 basal unit rather than from the top unit, just to show
5 depositionally what's going on within the Strawn section.

6 Above the Atoka shale is a sequence of
7 Strawn sands and -- and shaly sands, and calcitic sands,
8 above which lies the interval that I've isopached on Exhi-
9 bit Number Four, so the isopach interval shown in Exhibit
10 Number Four extends from the top of the Strawn sandstone to
11 the top of the Strawn limestone, as indicated on the cross
12 section.

13 The cross section shows a well, the well
14 immediately west of the location, which is now operated by
15 Nearburg Producing Company, the Monteith State No. 1, which
16 produces from thin-bedded, marginal reef facies as far as I
17 could tell from samples and from regional work in this
18 area, associated with the same carbonate build-up we expect
19 to see 45 feet of structural advantage on at the proposed
20 location, so the lavender type coloration that I show you
21 here corresponds to the isopach map that I've shown you
22 previously. It implies that although the proposed location
23 may encounter the same reefal unit that's producing out of
24 the Nearburg Monteith State No. 1, we hope to gain 45 feet
25 of structural advantage over the previous well.

1 enter these exhibits at this time?

2 MR. HALL: Yes, sir.

3 MR. STOGNER: What number are
4 they?

5 MR. HALL: They are Exhibits
6 Three, Four and Five.

7 MR. STOGNER: Exhibits Three,
8 Four and Five will be admitted into evidence at this time.

9

10 CROSS EXAMINATION

11 BY MR. STOGNER:

12 Q Mr. Mazzullo, do you know what the two
13 orders on those two nonstandard prorations are?

14 A No, I don't.

15 Q Okay. There has been a request for full
16 allowable. I don't know if we've adequately covered that
17 or not. Would you care to touch upon it at this time?

18 A The request for full allowable, I guess,
19 would -- would key into the fact that these are risky
20 wells. These are extremely risky wells to drill.

21 We fully expect, because of the success
22 rate that we've had with seismically defining these
23 features, and these are standard procedures that most oper-
24 ators in this area use to define these features, we fully
25 expect to gain a section, an advantage in the amount of

1 total pay section in this well, which we feel would pro-
2 bably support full allowable, at least production would
3 probably support full allowable if, in the event that we
4 actually encounter what we're drilling -- what we expect to
5 find.

6 It is a risky well. As you probably
7 know, you can get off a few hundred feet off of one of
8 these features and drill a dry hole. So we're taking a
9 substantial risk even in drilling a well this far -- this
10 close or far away from an existing producer.

11 Q Can this proposed allowable, can you
12 justify it that it wouldn't damage the reservoir in any
13 way?

14 A As far as I'm aware, well, for one
15 thing, we have -- we're surrounded by a plugged producer to
16 the south, a well that we are currently operating at a very
17 low rate to the west, and a well that is just about deplet-
18 ed the north. I think we're taking most of the risk here
19 in drilling -- in drilling the well and if we're able to
20 support a full allowable -- if the production is able to
21 support full allowable, I would -- I would certainly recom-
22 mend trying to get it.

23 Q Well, you're recommending that to me but
24 you're not giving me any -- anything to go by that's pur-
25 suant to Rule 505.

1 A Could I just go off the record for a
2 second?

3 Q No.

4 A I need to ask my attorney something.

5 Q Oh, well, then you can do it, sure.

6 MR. HALL: Okay, if I might
7 ask a brief question of the witness?

8 MR. STOGNER: Please.

9

10 REDIRECT EXAMINATION

11 BY MR. HALL:

12 Q Mr. Mazzullo, if a production restric-
13 tion were to be set against this well, what would you
14 recommend it to be?

15 A Well, if it had to be set against this
16 well, I would recommend 50 percent.

17 Q And if the production restriction were
18 greater than that, would your plans for proceeding with the
19 well change at all?

20 A Definitely. We'd have to re-evaluate
21 the -- the well in order to decide whether it would be
22 economic at this time to drill it.

23 MR. STOGNER: Okay, I'm not
24 sure I followed that line of questioning.

25

1 RECROSS EXAMINATION

2 BY MR. STOGNER:

3 Q If I heard right, you would not object
4 to a 50 percent penalty, is that correct?

5 A Right, that's correct.

6 Q But anything less than that you would.

7 A That's right.

8 Q Okay. Pursuant to Rule 505-D, as in
9 dog, to pursue such matter as a special allowable in your
10 case, and what you're requesting today, this case will have
11 to be readvertised. Is that your intent for today?12 MR. HALL: No, sir. Our -- we
13 request that we go ahead with this hearing. I think we can
14 -- we'd take 50 percent allowable as a minimum; requesting
15 a full allowable, but we'll agree to a 50 percent restric-
16 tion.17 MR. STOGNER: Okay, and at
18 such time if you wish to pursue the full allowable, pur-
19 suant to Rule 505-D, such request will have to go to hear-
20 ing.

21 MR. HALL: Okay.

22 MR. STOGNER: Thank you. Is
23 there anything further in this case?24 MR. HALL: We have one more
25 statement, Mr. Stogner.

1 MR. STOGNER: Okay.

2
3 REDIRECT EXAMINATION

4 BY MR. HALL:

5 Q Mr. Nearburg, do you have something
6 further to add in this case?

7 A Yes. Mr. Stogner, I just did a quick
8 check of the case files on the Texaco Monteith Well to the
9 north and the Skelton or what is now the Nearburg Monteith
10 State to the west.

11 The Texaco well was originally drilled
12 in 1952 by Tidewater Oil and Gas.

13 The Skelton well was originally drilled
14 in March, 1966.

15 I could not find any applications for
16 nonstandard proration units in the OCD records. It's pos-
17 sible that these wells were drilled when this area was
18 spaced on 40 acres.

19 And I would just like to point that out,
20 because we can find no record of a hearing on these wells.

21 MR. STOGNER: May I ask what
22 records you were referring to?

23 A Florene Davidson helped me in the re-
24 cords just across the hall. She said she had microfilm
25 records going back even prior in time but we did not check

1 those.

2 But I'd just point out that with the
3 dates those wells were drilled it might be quicker to check
4 what the field rules were at that time.

5 MR. STOGNER: Mr. Hall, in the
6 best interest of time, why don't we leave the record of
7 this case open pending a review of those records?

8 MR. HALL: All right. You'd
9 like us to get you those order numbers, if any?

10 MR. STOGNER: If you could,
11 and I think that information is obtainable.

12 MR. HALL: All right.

13 MR. STOGNER: For the sake of
14 interest, let's -- let's just keep the record open pending
15 the receipt of those two order numbers or, as the case may
16 be, we may have to continue the case to a later date to
17 take that -- take the matter, any such matter that pops up
18 in this particular --

19 MR. HALL: We can track those
20 down for you.

21 MR. STOGNER: Please.

22 Is there anything further in
23 this case?

24 Case Number 9533, the record
25 will remain open pending receipt of the original

1 information which myself and Scott Hall talked about.

2

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(Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C. S. R. DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9533, heard by me on 22 November 1988.

Marshall P. Stegman, Examiner
Oil Conservation Division