

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

8 June 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of Nearburg Producing CASE
Company for an unorthodox oil well 9403
location, Lea County, New Mexico.

BEFORE: David R. Catanach, Examiner

A P P E A R A N C E S

For the Division:

Robert G. Stovall
Attorney at Law
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico

For the Applicant:

William F. Carr
Attorney at Law
CAMPBELL and BLACK, P.A.
P.O. BOX 2208
Santa Fe, New Mexico 87501

I N D E X

MARK NEARBURG

Direct Examination by Mr. Carr 3

Cross Examination by Mr. Catanach 7

LOUIS J. MAZZULLO

Direct Examination by Mr. Carr 9

Cross Examination by Mr. Catanach 11

Cross Examination by Mr. Stovall 15

E X H I B I T S

Nearburg Exhibit One, Land Map 4

Nearburg Exhibit Two, C-101 and C-102 5

Nearburg Exhibit Three, Notices and Returns 6

Nearburg Exhibit Four, Map 9

1 MR. CATANACH: Call next Case
2 9403.

3 MR. STOVALL: Application of
4 Nearburg Producing Company for an unorthodox oil well
5 location, Lea County, New Mexico.

6 MR. CATANACH: Are there
7 appearances in this case?

8 MR. CARR: May it please the
9 Examiner, my name is William F. Carr with the law firm
10 Campbell & Black of Santa Fe.

11 I have two witnesses in this
12 case, Mark Nearburg and Louis Mazzullo. I would request
13 that the record reflect that they have previously been
14 qualified and remain under oath.

15 MR. CATANACH: The record
16 shall so indicate that, Mr. Carr.

17 You may proceed.

18
19 MARK NEARBURG,
20 being previously sworn upon his oath and qualified, testi-
21 fied as follows, to-wit:

22
23 DIRECT EXAMINATION

24 BY MR. CARR:

25 Q Mr. Nearburg, are you familiar with the

1 application filed in this case?

2 A Yes.

3 Q Are you familiar with the Doubloon State
4 24-P No. 1 Well and the surrounding area?

5 A Yes.

6 Q Would you briefly state what Nearburg
7 seeks with this application?

8 A Nearburg seeks approval of an unortho-
9 dox oil well location to test the Strawn formation, located
10 400 feet from the south and east lines of said Section 24.

11 Q And in what pool do you project this
12 well?

13 A Northeast Lovington Pennsylvanian Pool.

14 Q Are you familiar with the rules for that
15 pool?

16 A Yes, 80-acre spacing and proration units
17 and wells located within 150 feet of the center of a
18 quarter quarter section.

19 Q Would you refer to what has been marked
20 as Nearburg Exhibit Number One, identify this and review it
21 for Mr. Catanach?

22 A This is a land map showing the proration
23 unit in yellow and the well with the red dot.

24 Q Does this also indicate the offsetting
25 ownership?

A Yes, it does. The map does not represent the trades that Nearburg has made to acquire the offset acreage around this unit.

Q And who actually owns the offsetting or the offsetting acreage?

A Nearburg Producing -- Nearburg Petro-
pany.

Q And the primary producing interval in
ect well will be what formation?

A Strawn formation.

Q Would you refer to what has been marked
urg Exhibit Number Two and identify that, please?

A This is the Application for Permit to
orm C-101 and 102, filed with the Oil Commission.

Q And it shows the proposed well location.

A Yes.

Q Would you now move to Nearburg Exhibit three and identify that, please?

A I'd like to --

Q Okay, there's --

MR. CARR: Mr. Catanach,
error in the C-102 that has been
location at a 300/300 foot loca-

It's actually as advertised,

1 400 feet from both the south and east lines. We will file
2 an amended C-102.

3 Q Mr. Nearburg, would you now refer to
4 Nearburg Exhibit Number Three, identify that for Mr.
5 Catanach, please?

6 A These are the notices provided to the
7 offset owners to the well and the registered -- certified
8 mail receipts attached with those.

9 Q And you've got a notice in there to --
10 to whom?

11 A Notices were mailed to Tenneco Oil
12 Company, OXY USA, which is Cities Service.

13 Q And what is the relationship between
14 Nearburg and each of those entities?

15 A Each of those entities has reached
16 formal agreement with Nearburg to develop their lands.

17 Q And so you actually are going to be
18 operating the properties in which they have the interest.

19 A Yes.

20 Q Were Exhibits One through Three compiled
21 by you or prepared under your direction and supervision?

22 A Yes.

23 MR. CARR: At this time, Mr.
24 Catanach, we would offer Nearburg Exhibits One through
25 Three.

1 MR. CATANACH: Exhibits One
2 through Three will be admitted as evidence.

3 MR. CARR: That concludes my
4 direct examination of Mr. Nearburg.

5

6 CROSS EXAMINATION

7 BY MR. CATANACH:

8 Q Mr. Nearburg, let's go over this land
9 map and tell me exactly what -- you have two offset opera-
10 tors that you notified.

11 A Yes.

12 Q Tenneco and OXY. What acreage do they
13 own?

14 A Okay. Cities Service has in Section 25
15 due south of the test well, the northeast quarter northeast
16 quarter is Cities Service.

17 The northwest quarter northwest quarter
18 of Section 30 to the southeast of the test well is owned by
19 Tenneco.

20 Q Okay, what about Section 19 to the east
21 there?

22 A That's operated by Nearburg.

23 Q Okay, is that from a farmout from -- my
24 lease map indicates Bran Oil?

25 A Oh, Bran Oil has assigned all fo those

1 rights to Nearburg and the map does not reflect it.

2 Q As I understand it, you've come to an
3 agreement with Tenneco and OXY to develop their acreage in
4 Section 25 and 30? Is that right?

5 A In Section 25 we have an agreement with
6 Cities to develop their land, if appropriate, and the same
7 in Section 30 with Tenneco.

8 Q I see. This is an oil well location,
9 right?

10 A Yes. And your notice to offset opera-
11 tors talks about, you stated that you were seeking appro-
12 val of an unorthodox gas well location. Of course, it does
13 state --

14 MR. CARR: It identifies the
15 pool, I think it does, and it -- the location is also pres-
16 ent, and in the future we're not going to identify what
17 kind of a well it's going to be.

18 If it turns out to be salt
19 water, it turns out to be salt water.

20 MR. CATANACH: Okay, that's
21 all the questions I have.

22 A Thank you.

23
24 LOUIS J. MAZZULLO,
25 being previously sworn upon his oath, and qualified, testi-

1 fied as follows, to-wit:

2
3 DIRECT EXAMINATION

4 BY MR. CARR:

5 Q Mr. Mazzullo, will you refer to what has
6 been marked as Nearburg Exhibit Number Four and review this
7 for Mr. Catanach as it relates to the Doubloon Well?

8 A Exhibit Number Four is an identical
9 Strawn structure map as presented in the previous case.

10 It shows the Strawn structure on 50-foot
11 contour intervals, which has been drawn from a combination
12 of subsurface mapping, using existing well logs, and to a
13 limited extent on the basis of seismic and interpre-
14 tations thereon were also made on the basis of detailed
15 sampler evaluations.

16 The stippled areas again refer to areas
17 of porous reef development in the Strawn section, which is
18 the local pay interval in this particular part of the
19 pool.

20 It shows that the No. 1 Soledad, which
21 is the well to the northeast of the proposed location, the
22 Doubloon State No. 24, which is indicated by the blue dot,
23 is up-dip of the No. 1 Soledad, which is, of course, pre-
24 sently producing from this same Strawn pool. It shows also
25 that the No. 1 -- that the 24 -- Doubloon State 24-P No. 1

1 is in a more shelfward position on this patch reef rela-
2 tive to the No. 1 Soledad, and possibly will be a little
3 bit more seaward in position on this patch reef than the
4 No. 1-C Monteith to its north in the northeast quarter of
5 the southeast quarter of Section 24.

6 The productive porosity in this parti-
7 cular pay reef is expected to trend southwestward of the
8 No. 1 Soledad, but how far to the west it's going to extend
9 is highly speculative. I don't know where the exact edge
10 of the -- the landward edge of the reef is going to be, so
11 it's in our -- in our best interest to minimize risk to
12 place the well as far over to the eastern -- towards the
13 eastern section line as is practicable.

14 The nonstandard location will allow us
15 to get up-dip of the No. 1 Soledad by about 50 feet by my
16 mapping, and lessen the risk of getting out of the fairway
17 by going too far west. We're moving toward the east and
18 the only thing we're doing by moving over to the east is
19 moving towards acreage that is owned or controlled by
20 Nearburg Producing Company.

21 Q Mr. Mazzullo, in your opinion will a
22 well at the proposed location effectively and efficiently
23 drain the reserves that you hope are present under the pro-
24 ration unit dedicated to the well?

25 A Based upon my interpretation it will

1 most effectively drain these reserves.

2 Q In your opinion will granting the
3 application be in the best interest of conservation, the
4 prevention of waste, and the protection of correlative
5 rights?

6 A Yes.

7 MR. CARR: At this time --

8 Q Or did you prepare Exhibit Number Four?

9 A Yes.

10 MR. CARR: At this time, Mr.
11 Catanach, we would move the admission of Nearburg Exhibit
12 Number Four.

13 MR. CATANACH: Exhibit Number
14 Four will be admitted into evidence.

15 MR. CARR: That concludes my
16 direct examination of Mr. Mazzullo.

17

18 CROSS EXAMINATION

19 BY MR. CATANACH:

20 Q Mr. Mazzullo, you've shown what you --
21 what in your opinion is the productive fairway within the
22 Strawn. You testified that you don't know what the west --
23 how far west this -- this productive fairway extends.

24 Do you know if -- do you have an opin-
25 ion as to whether the southwest quarter of the southeast

1 quarter would be productive in the Strawn?

2 A If I didn't think it would be, I
3 wouldn't propose the location there to begin with.

4 Q The southwest quarter, not the --

5 A Southwest quarter --

6 Q Southwest of the southeast.

7 A Oh, the southwest of the southeast. I
8 don't know and I won't be able to tell until this well is
9 down and I've had the opportunity to look at the logs and
10 samples.

11 But these trends through the area,
12 through these productive reefs, are relatively narrow and
13 they can vary abruptly, as we've -- as experience has shown
14 us before, can very abruptly terminate in either a
15 north/south or an east/west direction.

16 So what we would like to do is not to go
17 too far afield. We know that the No. 1 Soledad is getting
18 close to the seaward edge, and we know that the No. 2-C
19 Monteith to the north is right at the landward edge. It
20 the No. 1-C was 100 feet west of where it was, it would be
21 totally out of porosity. There wouldn't be a stick of
22 porosity in there.

23 I'm hoping that by moving the Doubloon
24 closer to the eastern section line, that we will minimize
25 the risk of possibly getting out or getting too far

1 closer to the eastern section line, that we will minimize
2 the risk of possibly getting out or getting too far
3 landward in this productive fairway. You can see it's not
4 very wide. It might surprise us and develop another
5 porosity pod in a different part of the section in the
6 southwest quarter, but whether or not this will, this
7 particular pod is going to be present there, I can't tell
8 as yet.

9 MR. CARR: Mr. Catanach, I
10 might point out that if it was a stand-up unit being the
11 east half of the southeast, the ownership would be the
12 same. It is all the same lease. It's a farmout from
13 Yates, so it really wouldn't change the ownership whether
14 it was a laydown or a stand-up in that quarter section.

15 Q Mr. Mazzullo, what did you use to
16 determine the extent of the fairway, just well control,
17 well log data?

18 A Well, that, that. As in the previous
19 cross section, you can see where the -- where the pay zone
20 is starting to be interbedded along its margins with non-
21 productive type rock.

22 Also, by looking at the samples, there
23 are certain types of limestone that are associated with the
24 basinal or the seaward side of these patch reefs in this
25 area versus what is characteristic of shelfward type facies

1 that are nonproductive.

2 I could see shelfward type facies inter-
3 bedded with the rocks in the 1-C, or I could see indica-
4 tions that they exist in the 1-C Monteith, whereas, in the
5 Soledad we're getting -- we're picking up interbeds of
6 basinal type carbonates, so those two wells plus the log
7 character in the No. 1 -- in the No. 2 Monteith State in
8 Section 19, all of those factors together allow me to
9 speculate on where the edge of the reefs -- the reef is on
10 either side, both on the seaward side and on the landward
11 side. It's a very careful sample evaluation that tells me
12 that.

13 Q You're basically only a 110 feet from a
14 standard location. Do you think it makes that much differ-
15 ence?

16 A Yes, it does. We -- Nearburg has had
17 experience before in being only 100 feet or so from the
18 edge of a reef and getting totally into barren rock, and
19 the experience is shared by many other operators in this
20 area. This area is very notorious for -- for, you know, if
21 you step out 200 feet or 100 feet in one direction or
22 another it could mean the difference between a productive
23 well and barren rock.

24 Q Do these wells have any natural ten-
25 dency to drift in any direction that you know of?

1 A There's a very limited amount of drift
2 typically in the up-dip direction, but we -- we've taken
3 downhole surveys on wells that Nearburg has drilled and
4 they don't drift more than maybe 35 feet or so in an up-dip
5 direction.

6
7 CROSS EXAMINATION

8 BY MR. STOVALL:

9 Q On your Exhibit Number Four you've
10 sort of indicated the -- I'll say the end of your stippling
11 pattern, anyway, just below the section line.

12 A Uh-huh.

13 Q Does that indicate that you think the
14 reef ends there or is that just that you don't have any
15 information about --

16 A No, we just don't have any information
17 over there.

18 MR. CATANACH: That's all the
19 questions we have.

20 Is there anything further in
21 this case?

22 MR. CARR: Nothing further.

23 MR. CATANACH: If not, Case
24 9403 will be taken under advisement.

25

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. 9403,
heard by me on June 8 1988:

David R. Catanzel, Examiner
Oil Conservation Division