

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

16 March 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of Terra Resources, Inc. CASE
for compulsory pooling and an unortho- 9332
dox gas well location, Chaves County,
New Mexico.

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division: No attorney appearing.

For the Applicant: William F. Carr
Attorney at Law
CAMPBELL & BLACK P. A.
P. O. Box 2208
Santa Fe, New Mexico 87501-2208

For Yates Petroleum,
Yates Drilling, Abo
Petroleum and MYCO: Chad Dickerson
Attorney at Law
DICKERSON, FISK & VANDIVER
Seventh and Mahone/Suite E

I N D E X

KEVIN PFISTER

Direct Examination by Mr. Carr 4

Cross Examination by Mr. Catanach 9

ROD THOMPSON

Direct Examination by Mr. Carr 10

Cross Examination by Mr. Catanach 16

E X H I B I T S

Terra Exhibit One, Land Plat 6

Terra Exhibit Two, Plat 7

Terra Exhibit Three, Letter 7

Terra Exhibit Four, Affidavit 8

Terra Exhibit Five, Structure Map 11

Terra Exhibit Six, Isopach 13

Terra Exhibit Seven, Cross Section 14

1
2 MR. CATANACH: Call Case 9332,
3 the application of Terra Resources, Incorporated, for
4 compulsory pooling and an unorthodox gas well location,
5 Chaves County, New Mexico.

6 Are there appearances in this
7 case?

8 MR. CARR: May it please the
9 Examiner, my name is William F. Carr, with the law firm
10 Campbell & Black, P. A. of Santa Fe. We represent Terra Re-
11 sources, Inc. and we have two witnesses.

12 Initially I would like to point
13 out that Terra has been able to obtain voluntary joinder
14 from all interest owners in the proposed unit to be dedi-
15 cated to the well that is the subject of this hearing and
16 therefor at this time we would dismiss the compulsory pool-
17 ing portion of the case.

18 I also would point out that we
19 have moved the well location. It was advertised 330 out of
20 the south and east corner of the section and we are moving
21 it back to a 660 location. We've done this at the request
22 of, and as the result of negotiation with Yates Petroleum,
23 and we are proposing a well now 660 feet from the south and
24 east lines of Section 22.

25 We don't believe this will re-

1 quire readvertisement inasmuch as we are moving toward a
2 standard location from that that was previously advertised.

3 MR. CATANACH: Are there any
4 other appearances in this case?

5 MR. DICKERSON: Mr. Examiner,
6 I'm Chad Dickerson of Artesia, New Mexico, appearing on be-
7 half of Yates Petroleum Corporation, Abo Petroleum Corpora-
8 tion, Yates Drilling Company and MYCO Industries, Inc.

9 And I do not propose to call
10 any witnesses.

11 MR. CATANACH: Abo Petroleum
12 Corporation and MYCO, Incorporated.

13 MR. CATANACH: Will the witnes-
14 ses please stand and be sworn in?

15

16 (Witnesses sworn.)

17

18 KEVIN PFISTER,

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

21

22 DIRECT EXAMINATION

23 BY MR. CARR:

24 Q Will you state your full name for the re-
25 cord, please?

1 A My name is Kevin Pfister.

2 Q Mr. Pfister, by whom are you employed and
3 in what capacity?

4 A I'm employed by Terra Resources, Inc., as
5 a Senior District Landman.

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 A Yes, I have.

10 Q Are you familiar with the application of
11 Terra Resources, Inc., filed in this case?

12 A Yes, I am.

13 Q And are you familiar with the subject
14 area?

15 A Yes.

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

18 MR. CATANACH: They are.

19 Q Mr. Pfister, would you briefly state what
20 Terra seeks with this application?

21 A Terra seeks an unorthodox location for
22 the drilling of an Atoka Morrow well to be located 660 from
23 the south and 660 from the east line of Section 22 in Town-
24 ship 14 South, Range 27 East in Chaves County, New Mexico.

25 Q Would you refer to what has been marked

1 for identification as Terra Exhibit Number One, identify
2 this and review it for Mr. Catanach?

3 A Exhibit Number One is a land plat which
4 denotes the proration unit that will surround the well.
5 It's an east half proration unit. It consists of the yellow
6 colored acreage, which is Terra acreage that its required a
7 leasehold on.

8 There's a 40-acre blue colored tract
9 there, which is -- we've obtained farmouts from all parties
10 there with the exception of one party, which has elected to
11 participate, and there is a green tract, which denotes
12 Yates, et al's lease, which they have agreed to farm out to
13 Terra.

14 Q And Yates also owns acreage to the east
15 and southeast, is that correct?

16 A That's correct.

17 Q What is the status of the acreage in Sec-
18 tion 27 that is indicated Depco Nycor? (sic)

19 A That acreage is actually open. We have
20 nominated that acreage for a lease but due to the suspension
21 provisions and all that sort of thing, it has not yet come
22 up for bid.

23 Q And that is a Federal tract?

24 A Yes, it is.

25 Q And the acreage that is the subject of

1 this application is also a Federal tract?

2 A The well is located on a Federal tract.
3 All acreage within the proration unit with the exception of
4 the acreage outlined in blue, which is State acreage is fee.

5 Q It is Federal.

6 A I'm sorry, it's Federal. That's correct.

7 Q Would you now go to Exhibit Number Two,
8 identify this and review this for Mr. Catanach?

9 A This color representation denotes all
10 leases surrounding this tract and attached to this plat is a
11 listing of all leases that correspond with the numbers
12 designated on the colored plat.

13 Q Has notice been given to each of the in-
14 terest owners that are set forth pursuant to Oil Conserva-
15 tion Division rules?

16 A Yes.

17 Q And you've notified all interest owners,
18 therefor, to the east, southeast and south?

19 A That is correct.

20 Q All right. Would you identify what has
21 been marked Exhibit Number Three for Mr. Catanach?

22 A Exhibit -- Exhibit Number Three is a let-
23 ter from Yates Petroleum basically indicating that all four
24 companies have elected to farmout their interests to Terra.

25 Q And this letter sets out the conditions

1 of the agreement?

2 A That is correct.

3 Q And this was -- has been accepted by Ter-
4 ra Resources, Inc.?

5 A Yes, it was.

6 Q Would you identify for the Examiner what
7 has been marked as Terra Exhibit Number Four?

8 A Terra Exhibit Number Four is an affidavit
9 which I have signed which denotes the notice that was sent
10 to all offset parties, as well as parties originally in the
11 forced pooling that have now elected to either participate
12 or farm out.

13 Q And attached to that is a letter from
14 Campbell & Black giving notice of the hearing?

15 A That is correct.

16 Q And a copy of the application.

17 A Yes.

18 Q Do you have anything further to add to
19 your testimony?

20 A No.

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

23 A Yes, they were.

24 MR. CARR: At this time we
25 would offer Terra Exhibits One through Four.

1 MR. CATANCH: Exhibits One
2 through Four will be admitted as evidence.

3 MR. CARR: I have nothing fur-
4 ther of Mr. Pfister.

5

6 CROSS EXAMINATION

7 BY MR. CATANACH:

8 Q Mr. Pfister, Yates is the owner of the
9 west half of Section 23, is that right?

10 A They're the operator of --

11 Q Operator.

12 A -- the wells. There are two wells that
13 are located in Section 23, and they're the operator of both
14 wells.

15 Q Okay, how about the -- the north half of
16 Section 26, what is the status of that well?

17 A That well is also a Yates-operated well.
18 As a matter of fact, there's two wells also in Section 26
19 that are operated by Yates.

20 Q There is an Atoka-Morrow well in the
21 north half there?

22 A Yes, there is.

23 Q So you have a north half dedication on
24 that well?

25 A Yes.

1 Q And you are in the process of trying to
2 acquire the lease in Section 27?

3 A We have nominated it, yes, for a KGS.
4 It's not on the April sale, however.

5 Q What is the extent of that lease? Is
6 that everything except the acreage colored yellow on Exhibit
7 One?

8 A The yellow acreage plus there is a 40-
9 acre tract that is owned by Celeste Grynberg, which is Tract
10 H of Exhibit Two, and that tract is owned by Celeste Gryn-
11 berg 100 percent.

12 MR. CATANACH: That's all I
13 have. This witness may be excused.

14 MR. CARR: At this time I'd
15 call Rod Thompson.

16
17 ROD THOMPSON,
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. CARR:

23 Q Would you state your full name for the
24 record, please?

25 A My name is Rod Thompson.

1 Q Mr. Thompson, where do you reside?

2 A I reside at 4906 Foxborough (sic) Court,
3 Midland, Texas.

4 Q By whom are you employed and in what cap-
5 acity?

6 A I'm employed as a geologist by Terra Re-
7 sources, Inc.

8 Q Have you previously testified before this
9 Division and had your credentials as a geologist accepted
10 and made a matter of record?

11 A Yes, I have testified and they have been
12 accepted.

13 Q Are you familiar with the application
14 filed in this case and the subject area?

15 A Yes, I am.

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

18 MR. CATANACH: They are.

19 Q Mr. Thompson, would you refer to what has
20 been marked Terra Exhibit Number Five --

21 A Yes.

22 Q -- and identify this and review it for
23 Mr. Catanach?

24 A Exhibit Number Five is a structure map
25 contoured on the top the Barnett unconformity.

1 The Barnett unconformity is the -- a
2 lower formation at the base of the Morrow, which is our --
3 which contains our productive sands in this area, and the
4 purpose of this map is to illustrate that there has been
5 erosional channels that have occurred during Morrow time
6 within which these thick, thicker Morrow sands and better
7 productive sands have been concentrated, and we wish to pro-
8 pose here that our location is located in the most favorable
9 position to intercept these sands that trend from north to
10 south through the region.

11 The well in Section 23, a Yates well,
12 has, in the southwest quarter, has cumed 1.4-billion cubic
13 feet of gas from this Morrow sand and the well up in the
14 southwest quarter of 14 has -- was completed for 3.7-million
15 and has been shut in since the onset of that completion, and
16 we wish to be within this same channel fairway that these
17 sands are located.

18 Q What is the status of the well shown in
19 Unit B of Section 22?

20 A Location B is a dry hole that did pene-
21 trate the Morrow formation and it only had 2 feet of sand
22 that was nonproductive and no test was made in that sand, so
23 it was plugged up.

24 Q By moving the well's location from the
25 originally proposed 330 location to the 660 location, do you

1 believe you still maintain a satisfactory structural posi-
2 tion?

3 A Yes, I do. A structural as well as stra-
4 tigraphic position to encounter commercial sand.

5 Q There's also a tract for a subsequent
6 cross section on this exhibit, is there not?

7 A That's correct. Before we get to the
8 cross section, though, I wish to introduce Exhibit Six --

9 Q Sure.

10 A -- which is the Isopach of --

11 Q If you'll go to that now and review for
12 Mr. Catanach the information on that exhibit.

13 A Okay. Mr. Examiner, the Isopach map is
14 aa map that is contoured on porosity within the Morrow
15 sands, which are our main objective in the area, greater
16 than or equal to 8 percent, which we feel is the cutoff for
17 productive, commercial sands in the area, and it complements
18 the structural map in that our thicker sands are located
19 within a north/south trending channel, evidenced by a thick-
20 er Morrow section, especially in the well in the southwest
21 quarter of 14. We feel we're going to be within this same
22 eroded channel, which we expect to find similar productive
23 sands as those just east of us, and the cross section I'll
24 be showing extends in a north/south manner from the well in
25 Section 22 up to the well we feel is within the channel in

1 the southwest quarter of 14, then on down to our key offset
2 well in Section 23, southwest quarter, and then into two
3 real thick sands that we feel the sand that we are drilling
4 for is feeding into.

5 Q Will you now go to the cross section and
6 review that for Mr. Catanach?

7 A Yes. The cross section is a strati-
8 graphic cross section that's hung on the datum line of the
9 Morrow Clasic interval and that's where the start of our
10 productive sands begin, and we've got the base of the main
11 Morrow sand pay identified and colored on that section.

12 We feel this is a main producer in the
13 area and this is our main objective for our location, which
14 would be in a comparable position to the second well from
15 the left on the cross section. That was completed for 3.7-
16 million. And this well shows a real good section of Morrow
17 Clastics, a thick Morrow Clastic interval, which we feel has
18 -- is within the main channel trending north/south through
19 the area, and we feel we're going to be in the same main
20 channel.

21 You can see by the two wells on the
22 righthand side of the cross section that some of these Mor-
23 row sands have actually incised their way down into the Mis-
24 sissippian lime and that shows the erosional nature of these
25 channels up in this area and again I might add that these

1 sands do follow where these channels have been eroded.

2 And we feel like we're drilling in the
3 least risky location to encounter these sands in Section 22.

4 Q Mr. Thompson, in your opinion will granting
5 this application enable Terra to produce resources or
6 hydrocarbons that otherwise would not be produced?

7 A Yes.

8 Q In your opinion will granting the appli-
9 cation be in the best interest of conservation, the preven-
10 tion of waste, and the protection of correlative rights?

11 A Yes, it will.

12 Q Do you have anything further to add to
13 your testimony at this time?

14 A No.

15 Q Were Exhibits Five through Seven prepared
16 by you or compiled under your direction?

17 A They were. Yes, they were prepared by
18 me.

19 MR. CARR: At this time, Mr.
20 Catanach, we would offer into evidence Terra Exhibits Five
21 through Seven.

22 MR. CATANACH: Exhibits Five
23 through Seven will be admitted as evidence.

24 MR. CARR: And that concludes
25 my direct examination of Mr. Thompson.

1

2

CROSS EXAMINATION

3

BY MR. CATANACH:

4

Q

5

Mr. Thompson, your unorthodox location, as I understand it, will allow you to encounter more net pay within the Morrow formation?

6

7

A

8

That's correct. We feel we're going to be located farther to the east of that section where we -- we expect to be within the channel, farther into the main axis of the channel.

10

11

12

13

14

As you go to the west in this area, you come up out of this flood plain that's established north-south, and your chances of encountering the sand are much less.

15

Q

16

What is the minimum net, net amount of pay, you think that you'd need to get a commercial well?

17

A

18

19

20

There's actually been wells completed with under 10 feet of net pay. For example, a well up in Section 11, southwest quarter, has about 7 net feet better than 8 percent, and it still is completed for 1.2-million.

21

22

We feel this will be a commercial well but it has also been shut in by Yates Petroleum.

23

Q

24

A well at a standard location would still encounter a substantial amount of pay, isn't that correct?

25

A

Well, I feel that by going to the south,

1 the most southeast location that we -- that we could agree
2 upon with Yates Petroleum, would be the least risky location
3 because somewhere between the well in Section 22 in the
4 northeast quarter and the well in Section 23, is a pinchout
5 of sand, because that's really lacking, and I feel like the
6 closer we can be to encounter the sands present and that are
7 fed into Section 26, which we feel is a northwest source,
8 the better off we're going to be risk-wise to have a thicker
9 section and -- and higher ultimate recoveries.

10 As you go to the north in this area, the
11 whole Morrow Section is wedging out and I feel like the more
12 wedging out you have, the riskier your location would be.

13 So we're going to have thicker Morrow in
14 the southeast of 22 than we would at a standard location, as
15 well as more productive interval, and that's our reasoning.

16 Q What did you use to generate this Isopach
17 map? Was that control of wells? Was that well locations
18 and --

19 A It was mainly subsurface control, well
20 control.

21 We interpret the possibility of a north-
22 west source of sand coming from Section 21 through the
23 southeast quarter of Section 22. That's set up by a real
24 thin section in the well down in Section 27, as well as the
25 thin section in 22, and then relative to how that interval

1 relates to the wells in 23, and that was another reason for
2 going to that southeast quarter as far as we could.

3 Q There's not a whole lot of control in
4 Sections 22 and 27, though.

5 A No, there isn't, but we felt like our
6 control was to the east and we want to hug that edge as much
7 as we can to lower the risks.

8 Q Are there any producing wells farther --
9 farther west in Section 21 or 16 or 28?

10 A No, we're pretty much out of control as
11 we go up to the northwest. It's the end of the Springer
12 Basin Field.

13 Our first good production comes in in the
14 southwest quarter, the well in the southwest quarter of 14.
15 The one up in Section 11 is -- is kind of "iffy" right now.
16 It's been shut in. We don't have a good history on it. The
17 sand of reservoir quality off of electric logs is less than
18 the one in Section 14. They had to frac that sand up in
19 Section 11.

20 So we feel like the farther southeast we
21 can go, the better off we'll be.

22 Q Okay.

23 MR. CATANACH: I believe that's
24 all the questions I have.

25 You may be excused.

1 MR. CARR: We have nothing fur-
2 ther.

3 MR. CATANACH: If there is no-
4 thing further in Case 9332 it will be taken under advise-
5 ment.

6
7 (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. 9332.
heard by me on March 16, 1988.

David R. Catamula, Examiner
Oil Conservation Division