

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

14 September 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of TXO Production Corp. CASE
for compulsory pooling and an unortho- 9479
dox oil well location, Lea County,
New Mexico,
and
Application of TXO Production Corpor- 9455
ation for an unorthodox oil well lo-
cation, Lea 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:	Robert G. Stovall Attorney at Law Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico
For the Applicant:	Chad Dickerson Attorney at Law DICKERSON FISK & VANDIVER Seventh and Mahone/Suite E Artesia, New Mexico 88210

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1 MR. CATANACH: Call Case 9479.

2 MR. STOVALL: Application of
3 TXO Production Corporation for compulsory pooling and an
4 unorthodox oil well location, Lea County, New Mexico.

5 MR. CATANACH: Are there ap-
6 pearances in this case?

7 MR. DICKERSON: Mr. Examiner,
8 I'm Chad Dickerson of Artesia, New Mexico, on behalf of the
9 applicant, TXO Production Corp., and I have two witnesses.

10 MR. STOVALL: Do you want to
11 ask to consolidate these two cases?

12 MR. DICKERSON: Yes, and if
13 you would not mind, call Case 9455 and consolidate that in
14 the interest of time.

15 MR. CATANACH: Okay, at this
16 time we'll call Case 9455.

17 MR. STOVALL: Application of
18 TXO Production, Incorporated, for an unorthodox oil well
19 location, Lea County, New Mexico.

20 MR. CATANACH: Are there any
21 other appearances in either of these cases?

22 Will the witnesses please
23 stand to be sworn in?

24

25 (Witnesses sworn.)

1
2 JOHN P. GILBERT,
3 being called as a witness and being duly sworn upon his
4 oath, testified as follows, to-wit:

5
6 DIRECT EXAMINATION

7
8 BY MR. DICKERSON:

9
10 Q Mr. Gilbert, will you state your name,
11 your occupation, and by whom you're employed, please?

12 A My name is John P. Gilbert. I'm an
13 employee of TXO Production Corp. located in Midland, Texas.

14 Q And you are a landman, are you not?

15 A I'm a landman.

16 Q You have not previously testified before
17 this Division as a landman, have you, Mr. Gilbert?

18 A That's correct.

19 Q Will you summarize for Mr. Catanach your
20 educational and employment background briefly?

21 A I'm a 1977 graduate in the University of
22 Oklahoma, major in petroleum land management.

23 I worked a year and a half for Mobil Oil
24 Corporation in Denver, Colorado; worked a year and eight
25 months for Burlington Northern, Inc., in Billings, Montana,

1 and have worked eight and a half for TXO Production Corp.
2 in various locations, Billings, Montana, Denver, Colorado,
3 Wichita, Kansas, and now Midland, Texas.

4 Q And are you familiar with the land title
5 situation within the spacing unit of TXO's proposed well in
6 these two cases?

7 A Yes, I am.

8 MR. DICKERSON: Is Mr. Gilbert
9 qualified, Mr. Catanach?

10 MR. CATANACH: He is.

11 Q Mr. Gilbert, will you summarize the
12 purpose of TXO's applications in Cases 9455 and 9479 for
13 us?

14 A TXO Production Corp. is seeking an order
15 to pool all the mineral interests from the surface to the
16 base of the Atoka formation underlying the southeast south-
17 east of Section 13, 17 South, 37 East, to form a standard
18 40-acre oil spacing and proration unit for all the forma-
19 tions within the said vertical limit space on 40-acre
20 statewide spacing; or the east half southeast of said Sec-
21 tion 13 to form a standard 80-acre oil spacing and prora-
22 tion unit within the Undesignated Humble -- South Humble
23 City Strawn and Undesignated Humble City Atoka Pools, both
24 aforementioned units to be dedicated to a well to be drill-
25 led at an unorthodox oil well location 1310 from the south

1 line and 660 feet from the east line of said Section 13.

2 Q Both those pool rules, the Undesignated
3 South Humble City Strawn and Undesignated Humble City Atoka
4 Pools provide for 80-acre spacing, do they not?

5 A That's correct.

6 Q And both of those pools likewise require
7 wells located within the pools to be located within a 150-
8 foot circle of the center of any governmental quarter
9 quarter?

10 A That's correct.

11 Q And TXO is seeking exception to those
12 requirements?

13 A That's correct.

14 Q Okay, identify for us what we have sub-
15 mitted, Mr. Gilbert, as TXO Exhibit Number One and tell us
16 what your map reflects?

17 A Okay, Exhibit One is a shot of the area,
18 a land map shot of the area; colored would be the east half
19 southeast of Section 13; indicated in red would be the pro-
20 posed location --

21 Q And your --

22 A -- 1310 from the south line and 660 from
23 the east.

24 Q So your proposed location is actually
25 only 10 feet away from the dividing line between the south-

1 est quarter of the southeast quarter and the northeast
2 quarter of the southeast quarter.

3 A That's correct.

4 Q Is title to all mineral interests, over-
5 lying royalty interest and working interest throughout your
6 proposed spacing unit uniform?

7 A It is.

8 Q Identify what we have submitted as
9 Exhibit Number Two for Mr. Catanach.

10 A All right, Exhibit Two is a model form
11 operating agreement, the 1982 version produced by the AAPL.
12 It conforms with drilling figures in the past in the area.
13 It identifies the east half southeast of Section 13 as the
14 contract area.

15 Q And TXO is the proposed operator of this
16 contract area?

17 A That's correct.

18 Q Mr. Gilbert, turn to Exhibit A of the
19 joint operating agreement and tell us what that tabulation
20 of interest and owners means?

21 A All right. On Exhibit A I've set out
22 the working interest ownership throughout the east half
23 southeast of Section 13 with the respective interest of
24 each part delineated.

25 Q So the TXO Production Corp's present

1 interest is 51.33 percent of the unit?

2 A That's correct.

3 Q And then the respective working interest
4 of all other working interest owners within the unit area
5 are set out opposite their names and addresses.

6 A That's correct.

7 Q One of our later exhibits will identify
8 another interest owner, Rebel Oil Company, as an additional
9 party sought to be pooled by TXO in this case. What is the
10 nature of Rebel Oil Company's interest in the spacing unit?

11 A Rebel owns 1/32nd interest throughout
12 that 80 acres, net 2.5 acres.

13 Q Mineral interest.

14 A Mineral interest.

15 Q Unleased mineral interest.

16 A Unleased mineral interest.

17 Q So as an unleased mineral interest owner
18 Rebel Oil Company has both the right to participate or exe-
19 cute an oil and gas lease, whatever.

20 A That's correct.

21 Q Has TXO been successful to this date in
22 reaching voluntary written agreements pooling all the re-
23 spective interests of the parties throughout the spacing
24 unit with any of these other parties identified on Exhibit
25 A or Rebel Oil Company?

1 A No, sir, we have not.

2 Q And in a moment with regard to another
3 exhibit you will discuss the status of your negotiations
4 and the joinder of those parties?

5 A That's correct.

6 Q Turn to the COPAS accounting procedure
7 attached as Exhibit C to your joint operating agreement,
8 Mr. Gilbert, and point out to Mr. Catanach the overhead
9 rates sought by TXO and requested by it in the compulsory
10 pooling portion of this hearing.

11 A Okay. TXO is proposing \$5,500 as the
12 drilling well rate and 10 percent of that number, \$555 --
13 \$550, excuse me -- as the producing well rate, which is
14 consistent with other wells we've drilling in the area.

15 Q Has TXO recently drilled other Strawn or
16 Atoka wells of an equivalent depth in the general area of
17 your proposed well in these cases?

18 A That's correct. The TXO Hightower Well
19 was recently drilled.

20 Q And these proposed rates were utilized
21 in the drilling of your Hightower Well?

22 A That's correct.

23 Q What is the location of that well for
24 Mr. Catanach's information?

25 A The northeast quarter of Section 3 --

1 excuse me, 4, I'm sorry, it's the same township and range,
2 right northeast of this location.

3 MR. DICKERSON: And for your
4 information, Mr. Catanach, I don't have it at my fingertips
5 but that well was the subject of a hearing and an order by
6 this Division last spring, as well. We can furnish that to
7 you.

8 MR. CATANACH: Were those
9 rates various rates -- were those rates cited in that or-
10 der?

11 MR. DICKERSON: I'd have to
12 review it. I think they were but I'd want to review it
13 before I swore to you that they were.

14 MR. CATANACH: Okay.

15 Q Mr. Gilbert, refer to our instrument,
16 exhibit, submitted as Exhibit Number Four and tell Mr.
17 Catanach what that affidavit is.

18 A All right. Exhibit Number Four is an
19 affidavit of mailing in accordance with Rule 1207 to all
20 offsetting operators or owners of undrilled leases border-
21 ing applicant's spacing unit on a common boundary unit
22 quarter as regards the unorthodox well location.

23 Q Okay, identify and discuss Exhibit Num-
24 ber Five.

25 A All right, Exhibit Number Five is an

1 affidavit of mailing in accordance with Rule 1207 to each
2 known individual owning an uncommitted leasehold interest,
3 and unleased and uncommitted mineral interest or royalty
4 interest not subject to a pooling or unitization clause
5 lands affected.

6 Q And I see I neglected to have you dis-
7 cuss our Exhibit Number Two, Mr. Gilbert. Will you return
8 to Exhibit Number Three, I'm sorry.

9 A All right, Exhibit Three is a compila-
10 tion of all correspondence to all the working interest
11 owners and unleased mineral interest owners offering each
12 of the parties -- well, let me go back to the letter, pro-
13 posal letter dated July 15, 1988. We offered these parties
14 the opportunity to participate with their respective work-
15 ing interests in the well or to farm out. An AFE accom-
16 panied the proposal.

17 On July 21, a week later, we amended the
18 proposal to amend the total depth of the well to 11,900
19 feet and provided each of the parties with an updated AFE.

20 Q Now to this date you have not succeeded
21 in reducing to writing an agreement by any of these parties
22 to participate, farm out, or do anything in these wells?

23 A That's right. That's correct.

24 Q Now, summarize for us briefly your con-
25 tact with these parties, your understanding of the status

1 of their intentions regarding joinder in this well.

2 A Okay. As previously stated, we pro-
3 posed the well on July 15. We amended the proposal on the
4 21st.

5 The first week of August, 1988, and I'm
6 sorry the date escapes me, but we flew to Houston and met
7 with Louisiana Land & Exploration and Amerada Hess in two
8 separate meetings, laid all of our existing data before
9 them. They were very appreciative of such a showing.

10 Q Are they the two largest interest owners
11 in the spacing unit other than TXO?

12 A That's correct. A representative of
13 what's referring to as the LDM Group, it's the several
14 individuals, the balance of the working interest owners on
15 the Exhibit A to the operating agreement, a representative
16 of their group came to our office in Midland and the same
17 data was laid before him.

18 Q What's the current status of those par-
19 ties as far as -- do you know their intentions or leanings
20 regarding their participation or not in this well?

21 A Okay. There was a follow-up seismic
22 line approved to shoot the 19th of August. It was imme-
23 diately shot, a north/south line. Data was received in our
24 office last week, immediately sent to LL & E Group and
25 Amerada did not participate, and the LDM Group picked up

1 the data yesterday, so we feel comfortable that we'll be
2 making arrangements with those people here shortly.

3 Q Do you anticipate reaching voluntary
4 agreement with many or all of those parties?

5 A All of them except the unleased mineral
6 interest owners.

7 Q Okay, so while you're not certain of it
8 expect to reach an agreement with these parties in all
9 likelihood

10 A I'm sure we will.

11 Q One further question back on the joint
12 operating agreement, Mr. Gilbert, the Exhibit A which you
13 discussed with the ownership of the various parties.

14 A The purpose of any pooling order entered
15 by this Division, the percent as set forth there also can
16 be used to allocate the cost of drilling, completing, and
17 operating expenses on the proposed well, can it not?

18 A That's correct.

19 Q Okay. To your knowledge, your requested
20 overhead rates that you discussed, Mr. Gilbert, have not
21 been the subject of any disagreement or any point of con-
22 tention with any of your other partners within the spacing
23 unit?

24 A That's correct.

25 MR. DICKERSON: MR. CATANACH,

1 I move admission of TXO's Exhibits One through Five at this
2 time and I have no further questions of Mr. Gilbert.

3 MR. CATANACH: Exhibits One
4 through Five will be admitted into evidence.

5

6 CROSS EXAMINATION

7 BY MR. CATANACH:

8 Q Mr. Gilbert, Exhibit A to your joint
9 operating agreement shows all the working interest percent-
10 ages. Now which ones have you not reached an agreement
11 with?

12 A Okay, actually none of these. The
13 Louisiana Land Group represents, of course, themselves.
14 The Amerada Group will represent themselves, and the bal-
15 ance that you see on here, the David Petroleum on down to
16 the Lucinda Herschenhorn (sic), they're in a joint venture
17 called the ADM Group out of Roswell and we have been
18 working with representatives of the ADM Group to commit
19 their interest or farm, whatever.

20 Q Okay, the ADM --

21 A But three separate decisions is what
22 we're expecting.

23 Q The ADM Group consists of from AH --

24 A Huh-uh, David Petroleum Corp. through
25 Lucinda Herschenhorn.

1 MR. DICKERSON: That AH 1980
2 Program, Inc., has something to do, Mr. Catanach, with
3 Amerada Hess Corporation. That was the Amerada Group that
4 Mr. Gilbert --

5 A I'm sorry, AH is Amerada Hess 1980 Pro-
6 gram, the --

7 MR. DICKERSON: -- referred to.

8 A -- drilling program.

9 Q Now they probably won't go into the --

10 A They -- Amerada has advised with budget
11 constraints that in all likelihood they will not join.

12 MR. DICKERSON: Do you antici-
13 pate that in lieu of joining and paying their proportionate
14 part of the cost that they will farm out to some of the
15 other parties and make other arrangements?

16 A Yes, I do. I think something along
17 those lines, either Louisiana Land may take up their inter-
18 est or the ADM Group, or they may farm out independently to
19 us. That's -- again, that's undetermined.

20 Q You mentioned something about Rebel Oil
21 Company. I'm not sure I understand the relationship.

22 A Okay.

23 Q Can you explain that again?

24 A Yes, sir, I can. Rebel Oil Company owns
25 an unleased mineral interest throughout the east half

1 southeast of Section 13, a net 2.5 acres. We had attempted
2 to secure a lease with this party. We have given them the
3 opportunity to participate with their respective interest
4 in the well or to farm out their mineral interest on a
5 drill-to-earn lease basis.

6 Q And they have not joined, either?

7 A (Not clearly understood.)

8 MR. DICKERSON: And if I may,
9 Mr. Catanach, you'll notice that the parties identified as
10 to whom notice of these hearings were mailed by -- shown by
11 Exhibits Four and Five, are the same as the parties shown
12 on Exhibit A to the joint operating agreement plus Rebel
13 Oil Company.

14 MR. CATANACH: Okay.

15 Q Are the -- is the interest that each of
16 these parties owns in either of these 40-acres the same?

17 A They're equally divided, that's correct.
18 Uniform.

19 MR. CATANACH: I have nothing
20 further.

21 MR. STOVALL: And I do have
22 question.

23
24 CROSS EXAMINATION

25 BY MR. STOVALL:

1 Q You've indicated that the Exhibit A, and
2 you don't have a total there, what does that add up to?

3 A Okay, that currently adds up to 96.867
4 percent, and assuming we acquired a lease on the Rebel Oil
5 interest, that would be total 100.

6 Q Okay, so in order to actually make an
7 allocation you would have to add in the Rebel Oil --

8 A That's correct.

9 Q -- interest and I assume -- would you do
10 that on the basis of the 76-1/2 percent working interest,
11 12-1/2 percent leasehold?

12 A In that case I would assume that working
13 interest.

14 MR. STOVALL: Nothing further.

15 MR. CATANACH: The witness may
16 be excused.

17
18 GREG WILSON,
19 being called as a witness and being duly sworn upon her
20 oath, testified as follows, to-wit:

21

22 DIRECT EXAMINATION

23

24 BY MR. DICKERSON:

25 Q Mr. Wilson, will you state your name

1 your occupation, and by whom you're employed, please?

2 A My name is Greg Wilson. I'm a geologist
3 For TXO Production Corporation in Midland, Texas.

4 Q And, Mr. Wilson, you have previously and
5 recently testified before this Division as a petroleum
6 geologist, have you not?

7 A Yes, I have.

8 Q And you, have you made a study of the
9 available geological data surrounding the applications of
10 TXO in these consolidated cases?

11 A Yes, I have.

12 MR. DICKERSON: Okay, is Mr.
13 Wilson qualified, Mr. Catanach?

14 MR. CATANACH: He is.

15 Q Mr. Wilson, will you identify what we
16 have submitted as TXO Exhibit Number Six and review that
17 production map for us?

18 A This is a map showing the area surround-
19 ing our proposed location with the production from the
20 Strawn limestone. There is no other production in the
21 mapped area other than from the Strawn.

22 There are --

23 Q And that's your principal objective in
24 this well?

25 A Yes, it is the Strawn limestone.

1 Q Okay. There are six producing wells
2 shown on this map. Of those one is a marginal producer
3 which is the No. 1 Norris in Section 13 in the northwest of
4 the southwest.

5 The remaining wells are -- are economic,
6 and there are also five dry holes shown on this map, pretty
7 much mixed in with and surrounding the producing wells.
8 One thing I'd like you to note is the proximity of these
9 dry holes to the good producers and the proximity of the
10 very marginal well which I just mentioned to the better
11 producers in there.

12 Q Give us a specific example of that,
13 would you, Mr. Wilson, the proximity? Point out and com-
14 pare for us the proximity of the dry hole to a good pro-
15 ducer.

16 A Well, there's the Lee Farms No. 1, which
17 is in the, let's see, that would be the southeast of the
18 northeast of Section 14, and it's, oh, probably 1200 feet
19 away from the Lee Farms No. 2, which is a good well, so
20 less than one standard 1320 location away.

21 The, as I mentioned, the Norris No. 1 in
22 Section 13, that's in the northwest of the southwest, is a
23 little more than that; probably 13-1400 feet from the
24 Lottie York No. 1, which is the southeast of the southeast
25 of 14. The Lottie York has made 520,000 barrels and it's

1 currently making 242 barrels a day. That was as of April
2 1st, '88.

3 And the Norris No. 1 has only made
4 27,000 barrels and was making 4 barrels a day, so it's a
5 marginal well. It's not even going to be enough to pay out
6 their cost in drilling the well.

7 Q Do you have anything further to add with
8 respect to Exhibit Number Six?

9 A Just that the production ranges, as I
10 just mentioned, from 520,000 barrels per well to 27,000
11 barrels and the closest offset producer to both of those
12 locations has made 106,000 barrels. One thing to note,
13 that 92 barrels a day is somewhat misleading. They only
14 produced the well for -- reported in the available produc-
15 tion information we have, they reported 3 days production.
16 So the actual production rate is something more like 8 to
17 10 barrels a day.

18 Q Mr. Wilson, refer to Exhibit Number Six
19 and review this for us -- or Seven.

20 A This is a structure map which is mapped
21 on the top of the Strawn carbonate interval. What this
22 shows is that the production lines up around east/west
23 trending structural noses, this structure is mainly due to
24 the difference in the total Strawn thickness. A structure
25 map on the base of the Strawn would show more of a regular

1 slope down to the east.

2 Our proposed location based on the well
3 data, and this is also suggested by the seismic, lies es-
4 sentially in the center of one of these structural noses.

5 Q Okay, refer to our submission as Exhibit
6 Number Eight and tell us what that map shows.

7 A This is a map showing -- it's an isopach
8 map of porosity in the Strawn limestone. My porosity cut-
9 off is 4 percent, so this is showing any porosity greater
10 than 4 percent. The reason for that cutoff is this seems
11 to be a minimum amount of porosity for commercial produc-
12 tion and it's also used by virtually everybody I've talked
13 to that has mapped in this area, so there seems to be quite
14 a bit of agreement that it's the appropriate cutoff.

15 What we're seeing here is four separate
16 porosity pods all of which lie, as I mentioned before,
17 along the crest of a structural nose. These are of limited
18 size and we have fairly abrupt boundaries, as demonstrated
19 by the proximity of the dry holes and that -- the marginal
20 producer, the Norris No. 1.

21 The best production seems to be found
22 where the test penetrates the central part of one of these
23 porosity pods, the best example, of course, being the
24 Lottie York No. 1 in the southeast of the southeast of Sec-
25 tion 14; over 520,000 barrels.

1 The other feature on here of note is the
2 seismic anomalies that we found in this area. We have on
3 this map, let's see, one, two, three seismic lines shown;
4 one east/west, which passes through our location; a north/
5 south line which passes very nearly through our location;
6 and an additional north/south line which passes along the
7 section line east of our location.

8 What we found is that in agreement with
9 the structure information from well data and the well data
10 interpretation, we are finding seismic anomalies right
11 across the center of our 80-acre tract and our proposed
12 location. Our proposed location is at what we interpret to
13 be the crest, the thickest part and the most distinctive
14 part of the anomaly; also about the center of it.

15 We did see a small anomaly at the Norris
16 No. 2, which is in, oh, the center of the south half of the
17 south half of Section 13. In addition a small anomaly
18 which would explain the production being less than some of
19 the better wells in the area, and then we saw a good, dis-
20 tinctive anomaly over the Lottie York No. 1 in the south-
21 east of the southeast of Section 14. So we think we have a
22 couple of good templates to use to establish what type of
23 -- or that we do have a seismic anomaly over our location.

24 Q The red dashed line shown on that is a
25 trace of your cross section, which will be shown as a later

1 exhibit, Mr. Wilson?

2 A Yes, that's correct.

3 Q Okay. Are you through with this
4 exhibit?

5 A Yes, I'm through with this exhibit.

6 Q Turn to Exhibit Nine and review for us
7 the information shown on that exhibit.

8 A Okay. This is the cross section that is
9 shown on Exhibit Number Eight.

10 Starting from the west, which is the
11 lefthand side, there's the Lottie York No. 1. There's a
12 very thick Strawn section here. The Strawn lime is the
13 portion that's been colored blue on the gamma ray curve.
14 There's about, oh, 260 feet of Strawn lime in the Lottie
15 York. There's over 100 feet of total porosity section.

16 The next well moving to the right is the
17 Inexco Norris No. 1. You'll note the very drastic thinning
18 of the section. It goes to about 130 feet from 260 feet,
19 so we've lost more than 100 feet of total Strawn section,
20 and there is essentially no porosity developed within the
21 Strawn. This well is producing from some perforations in
22 the bottom of the Strawn. There's really no indicated
23 porosity, and from a sandy clastic section which lies imme-
24 diately below the Strawn. It has been classified as Strawn
25 production and it is Strawn age sand, but it's not really

1 the same Strawn carbonate they're producing from in the
2 Lottie York No. 1.

3 The third well from the left is the
4 Norris No. 2. This is our closest offset producer to our
5 location. They had 32 feet of porosity and again you can
6 see that the thickening from the Norris No. 1 is very
7 dramatic, and this is something else that we see on the
8 seismic. We see a thickening in the Strawn section plus
9 an apparent thickening going to the slower velocity in the
10 porosity. The Strawn will appear to be thicker simply be-
11 cause it takes the sound waves longer to get through that
12 slower velocity porosity.

13 And in the last well, the Inexco Norris
14 No. 3, which is the closest test to our -- our location,
15 and again a much thinner section in the Strawn and no poro-
16 sity present within the Strawn section; I apologize for the
17 quality of this copy, it was the only one that was avail-
18 able for the log surfaces.

19 Q Mr. Wilson, based on your review of the
20 data set forth in your Exhibits Six through Nine, what con-
21 clusions do you draw respecting the best location for a
22 well with an east half southeast spacing unit?

23 A Well, based on the structural trend in
24 that direction, and the location of the porosity over the
25 structures and based on the seismic anomalies that we found

1 on the lines that we shot and purchased in this area, our
2 proposed location looks like the best spot.

3 Q Let's assume that TXO proposed to drill
4 this well in the east half southeast at an orthodox loca-
5 tion under the pool rules within 150 feet of either of the
6 governmental quarter quarter sections, in your opinion
7 would the risk of drilling a well at an orthodox location
8 be greater or less than the risk involved in TXO's proposed
9 well?

10 A It would be far greater; an orthodox
11 location in the southeast of the southeast would put us at
12 a northernmost legal location between the 20 and 30 foot
13 porosity contours.

14 The seismic is a good tool but it's not
15 perfect. We can't tell exactly where the edges of these
16 are. We've seen some cases where you'll have an apparent
17 anomaly and you don't get any porosity. So near the edges
18 sometimes the porosity will be gone and the anomaly will
19 trail out some.

20 So that would be rather a risky location
21 and as I mentioned before, the best production has been
22 found in the central portion of these porosity develop-
23 ments. And the same thing would apply to the north, a
24 legal location would put us about on the 30 foot porosity
25 contour and, as I mentioned, these things, the porosity

1 will terminate very abruptly and a matter of a few hundred
2 feet can make all the difference and it's really the most
3 prudent course of action to shoot for the central portion
4 of these porosity pods.

5 Q Now notwithstanding your opinion, Mr.
6 Wilson, that TXO's proposed location is the best location
7 within the east half of the southeast quarter of this
8 section in which to drill a Strawn well, what does the data
9 you have reviewed say about the risk involved in drilling
10 the well even at your proposed location insofar as the
11 requested pooling order against these other working inter-
12 est owners is concerned?

13 A Well, as is ably shown by Inexco, and
14 who is now LL & E, these wells were all, by the way, dril-
15 led by the Inexco Company. Some show as LL & E because
16 they are currently operated by them, but they drilled quite
17 a few dry holes around and within their productive area.
18 It's not hard to miss these things. There are other fac-
19 tors that can give you an apparent anomaly in the Strawn,
20 even though there may be no porosity, and within a two or
21 three mile radius of this area there have been several
22 cases of finding a thick Strawn section with no porosity or
23 with a (unclear) tight section.

24 So there's a number of risks involved
25 and the standard risk factor used by our company in-house

1 is 55 or 60 percent and that's in a development well.

2 Q Comparing that to the maximum statutory
3 risk penalty permitted under New Mexico law, Mr. Wilson, of
4 200 percent as a penalty in the compulsory pooling case,
5 and based on your review of this data, what is your opin-
6 ion as to an appropriate risk penalty to be imposed in any
7 pooling order issued by this Division?

8 A I think a maximum of 200 percent would
9 be appropriate.

10 Q And do you think your review of the
11 information, the dry holes and the production history of
12 those wells that you have reviewed for us supports your
13 opinion?

14 A Yes, I do.

15 Q Mr. Wilson, next identify what was we
16 have submitted as TXO Exhibit Number Ten and review that
17 instrument for us.

18 A This is an AFE for Norris B No. 1, the
19 proposed location. It was prepared by our Engineering De-
20 partment.

21 The costs are based on costs incurred in
22 two other TXO-operated wells that we've drilled this year
23 in the area, which are No. 1 Hightower, which is four miles
24 northwest in Section 4, and the No. 1 Penron Byers, which
25 is three miles northwest in Section 3. There have been

1 some adjustments for current repair and drilling costs and
2 this well is a little bit deeper than those, but overall
3 it's going to be about the same cost as the two wells that
4 we've already drilled.

5 Q If you did not, my attention was dis-
6 tracted momentarily, Mr. Wilson, isolate for us your anti-
7 cipated dry hole cost and completed well cost.

8 A The dry hole cost will be \$394,890.
9 It's listed under the title "Total Drilling", in that
10 column.

11 The completion costs would be listed as
12 "Total Completion", and that's \$240,500, and then our total
13 well costs including production equipment will be \$697,890.

14 Q And this AFE has been submitted to all
15 the other working interests an mineral owners within the
16 spacing unit, has it not?

17 A Yes.

18 Q And the fact that none of these parties
19 has joined, to your knowledge, Mr. Wilson, is not indica-
20 tive of any objection; you have not had any indication that
21 anybody objects or finds anything about the AFE to be out
22 of line for wells in this area?

23 A No. That would probably be addressed to
24 our Land Department, but to my knowledge, no, there have
25 not. There haven't been any objections to the AFE.

1 Q Okay.

2 MR. DICKERSON: MR. Catanach,
3 move admission of TXO --

4 Q Let me ask you, Exhibits Six through
5 Nine were prepared by you or under your direction and
6 supervision, were they not, Mr. Wilson?

7 A Yes, that's correct.

8 MR. DICKERSON: Move admission
9 of TXO Exhibits Six through Ten and I have no further ques-
10 tions of Mr. Wilson.

11 MR. CATANACH: Exhibits Six
12 through Ten will be admitted into evidence.

13
14 CROSS EXAMINATION

15 BY MR. CATANACH:

16 Q Mr. Wilson, has TXO used seismic in this
17 area before to define these structures?

18 A Yes. We used it to pick our locations
19 on the two wells that we operate that I've mentioned pre-
20 viously, the Hightower and Penron Byers, and they came in
21 very, very much as we expected.

22 So we feel our geophysicist has a good
23 -- a good handle on finding Strawn anomalies.

24 The basis of these things, if you'll
25 note -- refer back to Exhibit Number Nine, the cross sec-

1 tion, a tight Strawn section, which is the second from the
2 left, the Norris No 1, you'll get a reflection, a seismic
3 reflection, from the top of the Strawn when you go from the
4 slow shale into the fast carbonate, and another reflection
5 when you go from the fast carbonate back into the slow
6 shale below the Strawn.

7 When there is porosity present, you get
8 two different effects. You'll get a dimmer reflection off
9 the top of the Strawn if there's porosity developed right
10 at the top, because the contrast between the slow shale and
11 the carbonate, if there's any present, you have a slower
12 porosity section, or -- and/or sometimes you'll get both,
13 there will be additional reflection when you go from the
14 slow porosity within the Strawn to the tighter carbonate
15 below the slow porosity, also within the Strawn, you'll get
16 an additional reflection between the reflections at the top
17 and the base of the Strawn.

18 Also you'll see a thickening of the
19 Strawn section on the seismic based both on actual thicken-
20 ing of the Strawn and, as I mentioned before, it will ap-
21 pear to be thicker because it takes the sound waves longer
22 to travel through the slower porosity. So it looks like
23 it's a greater distance from the top to the bottom, so
24 there's an apparent thickening as well as showing some real
25 thickening, and we've done -- our Geophysical Department

1 has done a fair amount of computer modeling and we've
2 looked at a lot of seismic that passes over many tight
3 Strawn Sections and known producers.

4 So we feel like it's a very effective
5 tool in picking locations in the Strawn.

6 Q Mr. Wilson, do you know if -- if there's
7 any 40-acre oil production in this area, 40-acre oil pools?

8 A In the Strawn?

9 Q No, in this general area that you're --
10 and not only the Strawn but any shallower formations?

11 A To the northwest in the Lovington area
12 there is San Andres, Grayburg, Paddock, let's see, I be-
13 lieve that's all; maybe some Yates production. I'm -- I
14 don't have that information in front of me, that is on 40-
15 acre spacing or less.

16 But all of the Strawn in this area, re-
17 gardless of the field, all of the Strawn fields within a
18 15-mile radius or so, are on 80-acre spacing.

19 Q Right, but you're not -- you're not in a
20 direct area that has 40-acre oil?

21 A No.

22 Q It would be located some distance away?

23 A Right. As I say, I don't have that di-
24 rectly in front of me here, that at least 5 or 6 miles to
25 the south and probably 7 or 8 miles to the northwest.

1 Q So you don't really anticipate a 40-acre
2 oil completion.

3 A No, there have been some attempts at San
4 Andres completions north in Section 31, 16 South, 38 East.
5 There was a well that made a few thousand barrels; it was
6 not economic and it was never filed in a field. It was
7 undesignated, and that's the closest San Andres production.
8 There has not been any San Andres or any shallower produc-
9 tion established in this area, other than Abo and Wolfcamp,
10 which are, oh, approximately two miles northwest, and those
11 are on 80-acre spacing.

12 But in this immediate area there is no
13 other shallow production.

14 Q What concerns me about that is you're
15 10 feet from the quarter quarter section line and if you
16 should happen to make a 40-acre oil completion you're going
17 to be way nonstandard for a 40-acre well.

18 MR. DICKERSON: Mr. Catanach,
19 the title for those two 40-acre units is exactly uniform
20 undivided interest so that we're not encroaching upon any-
21 body and we have not anticipated making a 40-acre oil well.
22 My information is that my client thinks it is extremely
23 unlikely. We simply requested approval of a 40-acre in the
24 unlikely event that it does happen, as has occurred in the
25 past on numerous occasions, we'd be relegated to coming

1 back and seeking approval for a well on an upper zone at
2 that time and we're simply trying to kill two birds with
3 one stone and keep the cost to the client down.

4 And it will be, it's anticipated, de-
5 pending upon whether or not the other parties within the 80
6 acres join, farm out, execute a lease, participate in the
7 drilling, regardless of Exhibit Number Two, the joint oper-
8 ating agreement pooling the entire working interest within
9 the entire 80-acre tract will be executed prior to drilling
10 the well.

11 MR. CATANACH: I'm finished
12 with this witness. He may be excused.

13 MR. DICKERSON: I have no fur-
14 ther questions.

15
16 MR. STOVALL: I have a couple
17 questions. Recall Mr. Gilbert.

18
19 JOHN P. GILBERT,
20 being recalled as a witness and remaining under oath, tes-
21 tified as follows, to-wit:

22
23 RECROSS EXAMINATION

24 BY MR. STOVALL:

25 Q Do you -- if you were to hit a 40-acre

1 location, do you anticipate it would be possible rather
2 than to form 40's that you'll develop some sort of working
3 interest pool on an 80-acre basis to deal with that situa-
4 tion?

5 A I don't think that would be a problem,
6 with uniform ownership and all being encompassed under one
7 operating agreement. I would anticipate any problem with
8 that at all.

9 Q I think -- my initial reaction would be
10 that that might be in your best interest rather than being
11 in a 10-foot offset on 40 acres might create serious prob-
12 lems.

13 A Yeah, I really don't anticipate any
14 problem there at all.

15 MR. STOVALL: Nothing further.

16 MR. CATANACH: Is there any-
17 thing else in Case 9479 or 9455?

18 MR. DICKERSON: No, sir.

19 MR. CATANACH: If not, they
20 will be taken under advisement.

21

22 (Hearing concluded.)

23

24

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. 9455, 9479
heard by me on September 14, 1988.
David R. Catamb, Examiner
Oil Conservation Division