

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

18 December 1985

EXAMINER HEARING

IN THE MATTER OF:

The application of the Oil Conserva- CASE
tion Division on its own motion to 8790
amend Division Order R-8962 and the
special pool rules for and the hori-
zontal limits of the Shipp-Strawn Pool
and to contract the East Lovington-
Pennsylvanian Pool, Lea County, New
Mexico.

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

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MR. STOGNER: We'll now go to page number four and call Case Number 8790, which is the application of the Oil Conservation Division on its own motion to amend Division Order No. R-8062.

We'll now call for appearances.

MR. TAYLOR: May it please the Examiner, my name is Jeff Taylor, counsel for the Oil Conservation Division, and I have one witness to be sworn.

MR. STOGNER: Are there any other appearances?

MR. CARR: May it please the Examiner, my name is William F. Carr. I represent Tipperary Oil and Gas Corporation.

I do not intend to call a witness.

MR. DICKERSON: Mr. Examiner, I'm Chad Dickerson, representing TXO Production Corporation.

We also do not anticipate calling a witness.

MR. STOGNER: Mr. Dickerson, who are you representing?

MR. DICKERSON: TXO.

MR. KELLAHIN: If the Examiner please, I'm Tom Kellahin, appearing on behalf of Pennzoil.

1 I anticipate calling one witness.

2 MR. STOGNER: Are there any
3 other appearances?

4 Will all witnesses in this case
5 please stand and be sworn at this time?

6
7 (Witnesses sworn.)

8
9 MR. STOGNER: Mr. Taylor.

10
11 PAUL F. KAUTZ,
12 being called as a witness and being duly sworn upon his
13 oath, testified as follows, to-wit:

14
15 DIRECT EXAMINATION

16 BY MR. TAYLOR:

17 Q Would you please state your name, place
18 of residence, and occupation for the record?

19 A Paul Kautz, residing in Hobbs, New Mexi-
20 co. I'm employed by the New Mexico Oil Conservation Divi-
21 sion as a geologist in Hobbs District.

22 Q Mr. Kautz, have you testified before the
23 Commission or its examiners before and had your credentials
24 as a professional geologist accepted?

25 A Yes, I have.

1 MR. TAYLOR: Mr. Examiner, I
2 tender the witness as an expert.

3 MR. STOGNER: Are there any ob-
4 jections?

5 Mr. Kautz is so qualified.

6 Q Mr. Kautz, have you reviewed the order
7 that was entered in Case 8696, which is Order R-8062?

8 A Yes, sir, I have.

9 Q Could you briefly state the purpose of
10 this case?

11 A The Order 8062, as entered, has created
12 certain problems in that the proposed pool boundaries would
13 not allow either any extensions or contractions, it would
14 cut proration units in half, and basically create some prob-
15 lems in well locations.

16 Q What do you seek or what does the Divi-
17 sion seek in this case, then?

18 A Well, the New Mexico Oil Conservation Di-
19 vision seeks to correct the discovery allowable assigned in
20 Order 8962, and to amend special rules as to the pool limits
21 and expansion and to require well locations within 150 feet
22 of the center of a quarter quarter section, and to transfer
23 acreage in the northwest quarter of Section 4, Township 17
24 South, Range 37 East, from the East Lovington-Pennsylvanian
25 Pool to the Shipp-Strawn Pool.

1 Also, we will seek to approve the unor-
2 thodox location of wells that have already drilled or have
3 had their applications approved.

4 Q These -- these wells are no unorthodox
5 now, are they, but they would be -- they would be made unor-
6 thodox if our application is granted today?

7 A Yes, they would.

8 Q Would you first then explain to us the
9 problem that Order R-8062 created with discovery allowable?

10 A Okay. Well, Order 8062 granted Pennzoil
11 Viersen Well No. 1, located in Unit letter I of Section 4,
12 Township 17 South, Range 37 East, a bonus discovery oil al-
13 lowable in the amount of 55,690 barrels based on the top
14 perforations in said well at 11,138 feet, and this was to be
15 -- this was figured out to be 77 barrels per day.

16 However, the 11,1838 for the top perfora-
17 tion was measured from the Kelly bushing and not from the
18 ground level. Our rules require that the discovery allow-
19 able be measured based on the top perms from the ground
20 level.

21 Q So essentially the problem with the order
22 in this aspect is just that, an incorrect method of figuring
23 --

24 A Right.

25 Q -- the allowable was used, and have you

1 prepared an exhibit to cover this aspect of the -- of our
2 application?

3 A Yes, I have. Exhibit Number One shows
4 the correct way the oil discovery allowable should have been
5 figured.

6 Q Okay, next let's talk about the problem
7 with the horizontal limits of the Shipp-Strawn Pool as de-
8 lineated in Order No. R-8062.

9 A Well, when the Shipp-Strawn Pool was
10 created it was created with an area covering approximately
11 2240 acres with only one well producing in it.

12 It's our policy to -- when we create a
13 pool, to only put productive acreage in that pool.

14 Also, when it was created, the limits
15 were frozen for the pool, which prevented us from either ex-
16 panding the pool or contracting the pool.

17 And so I'd like to recommend that the
18 northwest quarter northwest quarter of Section 4, Township
19 17 South, Range 37 East, be deleted from the Pennsylvanian
20 -- or East Lovington-Pennsylvanian Pool and include the
21 western half of the northwest quarter of Section 4 in the
22 Shipp-Strawn Pool; and further, I recommend contracting the
23 boundaries of the Shipp-Strawn Pool to include just the
24 north half of Section 4 and the southeast quarter of Section
25 4.

1 Q And altering the horizontal limits of the
2 pool in this method would bring this pool more into the way
3 that the common practice of the Commission is in delineating
4 these pools, would it not?

5 A Yes. And also it is requested that para-
6 graph seven and eight from the Findings be deleted. This
7 would allow the extension of the Shipp-Strawn Pool to be
8 handled under regular nomenclature cases and the expansion
9 of the pool as drilling may dictate.

10 And it's also requested that Division Or-
11 der R-8062 Special Rule No. 1 be revised; that each well
12 completed or recompleted in the Shipp-Strawn Pool or in the
13 Strawn formation within one mile thereof, and not nearer to
14 or within the limits of another designated Strawn oil pool
15 shall be spaced, drilled, operated, and produced in accord-
16 ance with the special rules and regulations.

17 The reason for that is to allow us to
18 take into consideration the geology of the area. There are
19 several other Strawn Pools in the area and it would allow us
20 to make expansions of the pool as drilling may dictate.

21 Q In making these changes in Order R-8062,
22 it is also intended to bring the creation of this pool into
23 the parameters of common practice of the Commission, is it
24 not?

25 A Yes, it is.

1 Q Okay. What other recommendations do you
2 have regarding any changes in that order?

3 A I would also request that Division Order
4 No. 8062, Rule 4 be revised to read that each well shall be
5 located within 150 feet of the center of a government quar-
6 ter quarter section or lot.

7 And also omit the stipulation for 990
8 feet from any other well capable of producing from the
9 Strawn formation.

10 Basically Rule 4 as presently stated
11 could conceivably force one operator to drill a standard lo-
12 cation while allowing another to drill at a 330 location.

13 Q So what you want to do with this -- with
14 Rule 4 of the Special Rules is deleted the 990 foot require-
15 ment and change the 330 feet to 150 feet from the center of
16 any quarter quarter section --

17 A Yes.

18 Q -- is that correct?

19 A That is correct.

20 Q Okay, and you stated at the beginning of
21 your testimony that changing the order in this manner will
22 result in changing some existing wells to non-orthodox loca-
23 tions. What do you recommend in this aspect?

24 A Well, several of these wells have been
25 completed and they've all had approved -- Notice of Intent

1 have been approved, so it's been requested that these wells
2 be granted an unorthodox location.

3 Q Would you please read for us the names
4 and legal descriptions of the wells that you're referring
5 to?

6 A Pennzoil Waldron No. 1 in Unit letter E
7 of Section 3, Township 17 South, Range 37 East. Footage
8 would be 180 from the north and 330 from the west.

9 The Pennzoil Viersen No. 2 in Unit letter
10 O, Section 4, Township 17 South, Range 37 East. Footage is
11 1300 from the south and 1650 from the east.

12 TXO Production Grisso No. 1 in Unit let-
13 ter H of Section 4, Township 17 South, Range 37 East. Foot-
14 age is 2310 from the north and 660 from the east.

15 I might point out that this well is pen-
16 ding in another case.

17 Q Excuse me, that was the Grisson or the
18 Grisso? I don't know the name of it.

19 A The Grisso.

20 Q The Grisso?

21 A Right.

22 Q Okay.

23 A And there's two more wells, both are Ex-
24 xon Corporation, New Mexico EX State No. 1 in Unit letter A
25 of Section 9, Township 17 South, Range 37 East. Footage is

1 330 from the north and 660 from the east.

2 And Exxon Corporation's New Mexico EX
3 State No. 2 in Unit letter B of Section 9, Township 17
4 South, Range 37 East. Footage is 330 from the north and
5 1980 from the east.

6 Q Is there any other changes or other
7 comments that you wanted to make on Order R-8062?

8 A No.

9 Q Did you prepare Exhibits One and Two?

10 A Yes, I did.

11 MR. TAYLOR: I'd like to move
12 their admission.

13 MR. STOGNER: Any objections?

14 Exhibits One and Two will be
15 admitted into evidence at this time.

16 MR. TAYLOR: And we have no
17 further direct testimony.

18 MR. STOGNER: Thank you, Mr.
19 Taylor.

20 Mr. Kellahin, your witness.

21 MR. KELLAHIN: Thank you, Mr.
22 Stogner.

23

24

25

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Kautz, how long have you been employed as a geologist with the District Office of the Division?

A About four and a half years.

Q Did you review as a geologist on behalf of the Division the Order R-8062 when it was being routed for entry in the case held back in September?

A No, I didn't.

Q Well, to your knowledge was any member of the District staff involved in the preparation and writing of the Division Order R-8062?

A No, they were not.

Q In terms of the pool boundary, you're proposing that we go from the fixed boundary in the order to a boundary identified as being largely within Section 4 but also subjecting any wells within a mile of that boundary to the Shipp-Strawn Pool rules?

A Yes, if not -- and if they're not closer to another existing pool.

Q Of all the Strawn pools outlined on your Exhibit Number Two, are all those pools spaced upon 80-acre spacing?

A I'm not sure if all of them are, but most

1 of them are.

2 Q How about the Midway Strawn Pool, what's
3 the spacing in that pool?

4 A I don't remember at this time.

5 Q Okay, what's the spacing in the East Lov-
6 ington Penn?

7 A 40 acres.

8 Q Looking on your exhibit, we have a pool
9 boundary on a 40-acre spaced pool and an 80-acre spaced pool
10 where the actual boundary, irregardless of the one mile buf-
11 fer, where those boundaries coincide at some point.

12 A Right.

13 Q Right? How do you propose to resolve the
14 inherent conflict if your proposal is adopted whereby you
15 have conflicting one mile buffers between an 80-acre spaced
16 pool and a 40-acre spaced pool?

17 A You'll take into consideration not only
18 distance of the pool boundaries but also the geology of the
19 area.

20 Q Have you examined the geology that Penn-
21 zoil presented at the September hearing?

22 A Yes, I have.

23 Q Okay, and what are your conclusions about
24 that geology insofar as the existing boundary of the pool is
25 concerned?

1 A I'm not convinced that the geology is
2 correct and that is why I'm proposing to contract the pool
3 rules so that we can, as more wells are drilled, we can take
4 in the geology of the area as those wells are drilled.

5 Q For example, if Tipperary comes to you in
6 the District and says, Gee, I've got a well, a proposed well
7 location that is in the conflict area between the one mile
8 buffers of two pools, each of which is spaced upon different
9 spacing --

10 A Uh-huh.

11 Q -- and I really would like to be in the
12 40-acre pool because that's all the acreage I have but, you
13 know, I could be in the 80-acre pool, who makes the decision
14 on what pool that well is in?

15 A I do.

16 Q And is that made without notice and hear-
17 ing and opportunity to other operators in these pools to
18 participate in that decision?

19 A They are -- if they -- the operator ob-
20 jects, they are given the opportunity to bring it to hearing
21 up here in Santa Fe.

22 Q And how would an opposing operator know
23 that he had an opportunity to object to that process?

24 A It is stamped on -- when they complete
25 the well and apply for an allowable, it is stamped on the

1 well if they have any objections to the well being placed in
2 that pool that they have the right to appeal.

3 Q How do you notify an operator seeking the
4 application of the inherent risk he runs in making the capi-
5 tal expenditure of a well based upon 40 acres knowing that
6 it could be changed to 80?

7 A Well, when they file Notice of intent
8 Melba Carpenter in our office checks the locations, checks
9 the distance from existing pools, checks for special pool
10 rules. At that time she -- if there might a conflict be-
11 tween a 40 or an 80-acre pool, she notifies the operator be-
12 fore it's even approved.

13 Q And what does she tell the operator?

14 A She tells the operator that it depending
15 on a well's completed or not, it may have to go on 40 or 80
16 acres.

17 Q Are you aware of any other cases in your
18 district in which we have pools on different spacing that
19 are in close proximity to each other, creating this type of
20 potential conflict?

21 A There are many in my district; too many
22 to count.

23 Q Would it not relieve your administrative
24 burden in the district to retain the fixed boundaries for
25 the Shipp-Strawn Pool so that you and everyone else will

1 know what they're required to do within that specific bound-
2 dary?

3 A No. We can look at, from that point of
4 view, if someone drills within 660 feet from the Casey-
5 Strawn and that well geologically should go in the Casey-
6 Strawn, it should go in the Casey Strawn instead of the
7 Shipp-Strawn.

8 Q You've indicated to us that the fixed
9 boundary precludes the expansion and contraction of the
10 pool. That precludes the administrative expansion and con-
11 traction of the pool by the District Office.

12 A That's right.

13 Q It wouldn't preclude anyone from bringing
14 a case like we have today to simply amend the boundary.

15 A Why should an operator go to that expense
16 when he can go through regular nomenclature?

17 Q Well, to give everybody notice and oppor-
18 tunity to participate and decide where the pool ought to be.

19 Let me ask you about the well locations.
20 Under the existing rules we can have the Shipp-Strawn well
21 up to but no closer than 330 to the outer boundary of its
22 80-acre spacing unit. Right?

23 Under that rule are there any unorthodox
24 located wells of those that have been permitted or drilled?

25 A Yes, there is.

1 Q All right, which one would that be?

2 A Pennzoil Viersen No. 2.

3 Q In what way is that unorthodox under the
4 current rules for the Shipp-Strawn Pool?

5 A It is closer than 330 from the unit boun-
6 dary, first of all.

7 Q The No. 2? Let's look at that on your
8 exhibit. You've given us the Viersen No. 2 as being 1650
9 from the east line and 1300 from the south line?

10 Do I have the right footage?

11 A 1300 from the south; 1650 from the east.

12 Q And the proration/spacing unit for the
13 Viersen is the west half of the southeast quarter, stand-up?
14 Makes it 330 from the line and center?

15 A Makes it -- yes, it does make it 330 from
16 the east.

17 Q Okay, so we don't have any --

18 A Right.

19 Q -- wells that are unorthodox under the
20 existing rule.

21 Now with the proposed change that you're
22 requesting, how many of these wells now become unorthodox?

23 A Five.

24 MR. KELLAHIN: Thank you, Mr.
25 Kautz.

1 MR. STOGNER: Mr. Carr, Mr.
2 Dickerson, do you have any questions?

3 MR. DICKERSON: I have none,
4 Mr. Examiner.

5 MR. CARR: I have just one, Mr.
6 Stogner.

7

8 CROSS EXAMINATION

9 BY MR. CARR:

10 Q Mr. Kautz, when you identified wells that
11 would have locations grandfathered in by your proposed
12 change, did you include the Tipperary well located in the
13 northeast quarter of the northwest quarter of Section 4?

14 A No, I did not.

15 Q And that well is 2310 from the west and
16 therefore this location would also have to be grandfathered
17 in, would it not?

18 A Yes, it would.

19 Q And that would be covered by your propo-
20 sal.

21 A Yes, it would.

22 MR. CARR: That's the only
23 question I have.

24 MR. STOGNER: Mr. Carr, what's
25 the name of that well that you're referring to?

1 MR. CARR: The Tipperary 4
2 State No. 1.

3 MR. STOGNER: In Section 4?

4 MR. CARR: Yes, sir. It's 2310
5 from the west and 660 from the north line.

6 MR. STOGNER: Thank you, Mr.
7 Carr.

8 Any other questions? Mr. Tay-
9 lor, do you have any redirect?

10 MR. TAYLOR: I just have one
11 clarification, I think we misstated the description of the
12 first well that would be made non -- would be made unortho-
13 dox and I just wanted to get a re-description on that well.

14

15 REDIRECT EXAMINATION

16 BY MR. TAYLOR:

17 Q Would you reread the description on that
18 well? Would you please read that description again?

19 A Pennzoil Waldron No. 1, located in Unit
20 letter E of Section 3, Township 17 South, Range 37 East, and
21 it's 1980 feet from the north and 330 feet from the west.

22 Q Thank you.

23 MR. STOGNER: Are there any
24 other questions of Mr. Kautz?

25

CROSS EXAMINATION

BY MR. STOGNER:

Q Mr. Kautz, you alluded to the TXC Production Grisso Well No. 1, and you said that was pending at another hearing. What kind of case is that other hearing?

A TXO Production is compulsory pooling that acreage.

Q Is that one of the cases that was continued or dismissed today?

MR. DICKERSON: Mr. Examiner, that case was heard by you, I believe, and taken under advisement -- by Gilbert Quintana and taken under advisement in September of this past fall.

MR. STOGNER: Thank you.

I have no further questions of this witness.

Are there any other questions of Mr. Kautz?

If not, he may be excused.

Mr. Taylor, would you please prepare a rough draft order?

MR. TAYLOR: Certainly.

MR. STOGNER: Are there any closing statements or any --

1 MR. KELLAHIN: Sir, I have a
2 witness, Mr. Examiner.

3 MR. STOGNER: Oh, my mistake,
4 sir, thank you.

5 Mr. Kellahin.

6
7 GREGORY L. HAIR,
8 being called as a witness and being duly sworn upon his
9 oath, testified as follows, to-wit:

10

11 DIRECT EXAMINATION

12 BY MR. KELLAHIN:

13 Q Mr. Hair, for the record would you please
14 state your name and occupation?

15 A Gregory L. Hair. I'm District Geologist
16 with Pennzoil in Midland, Texas.

17 Q Mr. Hair, were you the geologist on
18 behalf of Pennzoil Company that testified before the
19 Division Examiner, Mr. Quintana, on September 11th, 1985, in
20 Case 8696, which resulted in the entry of the Shipp-Strawn
21 Pool Rule Order R-8062?

22 A Yes, I was.

23 Q And have you prepared additional
24 testimony for today's hearing?

25 A Yes, I have.

1 MR. KELLAHIN: Mr. Examiner, we
2 tender Mr. Hair as an expert petroleum geologist.

3 MR. STOGNER: Mr. Hair is so
4 qualified.

5 Q Mr. Hair, I'd like to show you Exhibit
6 Number One, have you identify it, and describe who prepared
7 this exhibit, and then let me ask some questions about it?

8 A This is a Strawn porosity Isopach. It
9 covers generally the area of interest and quite a bit of the
10 surrounding area.

11 I believe it shows all the wells current-
12 ly down and a couple of drilling wells on here, also. It
13 was prepared by me, updated as of about three days ago, and
14 I think it's fairly accurate at this point.

15 Q Let's take a moment and identify for the
16 Examiner by name and by letter location the existing wells
17 that you've got spotted on your map so that we can keep the
18 well names straight.

19 If you'll start with the discovery well,
20 the Viersen Well, would you tell him where that one is?

21 A Yes. The Viersen No. 1 is located in
22 Unit letter I. It is 2130 from the south and 660 from the
23 east of Section 4. It's identified with 74 feet of total
24 porosity.

25 The Viersen No. 2 is directly to the

1 south and west of it, 1650 from the east and 1300 from the
2 south, and it's identified with 77 feet of porosity.

3 The Pennzoil Shipp No. 1 is 1980 feet
4 from the north and 1980 feet from the east of Section 4.
5 It's also identified with 77 feet of total porosity.

6 Q Just a minute, you're getting ahead.

7 A All right.

8 MR. TAYLOR: What was the name
9 of that well again?

10 A Pennzoil Shipp No. 1.

11 The Tipperary State 4 No. 1 is located
12 2310 from the west and 660 from the north of Section 4 and
13 it has 84 feet total porosity.

14 The other well on here which is located
15 is in Section 3. It's 1980 from the north and 330 feet from
16 the west, the Pennzoil No. 1 Waldron, and it's identified by
17 a drilling location.

18 Tipperary also has a well drilling, I be-
19 lieve, now, and it is not located on this map. I'm not sure
20 of the correct location. It would be, I believe, in Unit
21 letter F.

22 Q There are two wells that you've not spot-
23 ted --

24 A Of Section 4.

25 Q There are two additional wells that

1 you've not spotted. Our proposed well is not spotted in the
2 east half of the northeast of Section 4. There's the Shipp
3 2 and the Grisso 1.

4 A That's correct.

5 Q Would you identify what those proposed
6 locations are?

7 A I'm not positive what the Grisso location
8 is. I believe it's something like 2310 from the north and
9 660 from the east.

10 And the Shipp No. 1, I believe, is 660
11 from the north and 810 from the east.

12 Q Is that the No. 2 or the No. 1?

13 A The No. 2, I'm sorry.

14 Q And that's the contested case between TXO
15 and Pennzoil over well locations and operations of that (not
16 understood).

17 A That is -- that is correct.

18 Q All right. In testifying back in September,
19 Mr. Hair, what were your reasons as a geologist to re-
20 commend to the Division Examiner the flexibility in the well
21 locations whereby wells could be located up to but no closer
22 than 330 to the boundaries of their 80-acre spacing unit?

23 A We feel this porosity in this area is
24 contained in pods. We feel that's borne out by the map.

25 The perfect example of this is the Penn-

1 zoil Viersen No. 2 with 77 feet of porosity and the Tipper-
2 ary No. 1 John State, which is immediately southwest of
3 there, it's the dry hole with zero porosity in the southwest
4 quarter of Section 4. We go from 77 feet of porosity to ze-
5 ro porosity in that one standard location.

6 We feel that because this happens, and it
7 happens all over the map, we need the utmost in flexibility
8 in locating wells within an 80-acre proration unit because
9 the porosity can come and go very, very quickly in the
10 Strawn Lime.

11 Q If this examiner changes the existing Di-
12 vision order on well locations, and constricts the well lo-
13 cations to being 150 feet from the center of the quarter
14 quarter, what impact does that have upon the operations and
15 the drilling of wells in the pool?

16 A Potentially, and at this moment it would
17 obviously have none, since all the wells identified are
18 either standard or going to be grandfathered in, potentially
19 it could cause, though, a hearing for every well. We feel
20 that many of the locations will be nonstandard, as has been
21 borne out already by five wells being nonstandard in the
22 pool.

23 We feel that flexibility can be granted
24 within the proration unit so as you can locate the well in
25 the optimum position.

1 Q Mr. Hair, do you have any objection if
2 the location of well rule is modified to preclude a well
3 from being closer than 20 feet to the quarter quarter line
4 within the spacing unit?

5 A We have no objection to that at all.

6 Q Do you have any comments as a geologist
7 with regards to deleting the fixed boundary and placing this
8 pool with a one mile buffer rule as the previous witness re-
9 quested?

10 A We feel, based on our previous testimony,
11 that 80 acres is absolutely the best proration unit for this
12 field. There has been no objection to that, that I'm aware
13 of.

14 The conflict between 80-acre proration
15 units and 40-acre proration units is apparent between the
16 East Lovington-Penn and the Midway Strawn.

17 The potential conflict there is it could
18 be difficult to resolve and could lead to misunderstanding.
19 The fixed boundaries, the only question about those, I be-
20 lieve, is on our geology. I'm not going to argue about geo-
21 logy. I'll let our wells and Tipperary's wells speak for it-
22 self, but it seems to be pretty accurate right now. This
23 maps have not changed significantly since I submitted them
24 in September and two wells have been -- well, three wells
25 have been added.

1 The boundaries of the field are contin-
2 ually being extended. There is rapid development in the
3 area. Numerous wells have been drilled just since the Sep-
4 tember hearing. I feel that the boundaries as we stated
5 them are accurate. I think that they do allow for field ex-
6 pansion and there is no need at this point in time to have a
7 buffer zone, have anything of that sort; the fixed boundary
8 leads to less confusion, I believe.

9 Q With the addition of Tipperary's 80-acre
10 tract up in the northwest corner of the pool, and the addi-
11 tion of that tract to the boundaries of the pool, are you
12 aware of any other areas in which the existing boundary
13 needs to be contracted or expanded?

14 A Not at this point.

15 Q Was exhibit -- Pennzoil's Exhibit Number
16 One prepared by you?

17 A Yes, it was.

18 MR. KELLAHIN: That concludes
19 our examination of Mr. Hair.

20 We move the introduction of Ex-
21 hibit One.

22 MR. STOGNER: Are there any ob-
23 jections?

24 Exhibit One will be admitted
25 into evidence.

1 Mr. Taylor, your witness.

2 Okay, Mr. Taylor.

3

4 CROSS EXAMINATION

5 BY MR. TAYLOR:

6 Q Mr. Hair, could you tell us what the
7 basis is for determining in your Exhibit One that there are
8 three pods running through this area?

9 A Yes, it's based on seismic data.

10 Q Would you be willing to submit that data
11 as an exhibit or for our examination?

12 A It has been previously submitted. It is
13 part of the file. It was on another hearing. I do not have
14 the case number but all the data was submitted and thorough-
15 ly discussed in that hearing.

16 We can bring it out of that data, out of
17 that hearing.

18 Q Okay. Is there any other geological
19 orientation that could explain your production -- the pro-
20 duction in these two wells other than the three pods being
21 mapped, that orientation?

22 A Of course there is.

23 Q So you're not saying that this is the way
24 it is but you're saying this is the way you interpret it
25 could be.

1 A Of course.

2 MR. TAYLOR: That's all the
3 questions I have.

4 MR. STOGNER: Thank you. Mr.
5 Carr, Mr. Dickerson, do you have any questions of this
6 witness?

7 MR. CARR: No questions.

8 MR. DICKERSON: Mr. Examiner, I
9 have no questions but I would like to state for the record
10 that that is because I do not feel it is appropriate to
11 argue about the geology with Mr. Hair in this proceeding,
12 but we request that it not be used for purposes of the
13 pending cases in controversy between Pennzoil and TXO.

14 MR. STOGNER: Thank you, Mr.
15 Dickerson, I will take note of that.

16 Mr. Kellahin, do you have any
17 redirect?

18 MR. KELLAHIN: Yes, sir, there
19 was one question I wanted to ask Mr. Hair.

20

21 REDIRECT EXAMINATION

22 BY MR. KELLAHIN:

23 Q The existing special rules do provide for
24 a minimum distance between wells and I believe that distance
25 is 990 feet?

1 A Yes, that's correct.

2 Q All right. What is your understanding of
3 the basis or justification for the minimum distance between
4 wells, Mr. Hair, and whether or not you recommend that that
5 basis be continued?

6 A At the hearing, when the -- for the
7 establishment of field rules, an engineer from Pennzoil
8 presented quite a bit of data having to do with the
9 permeability of these reservoirs.

10 We presented data based on our Viersen
11 No. 1, which has since been confirmed in our Viersen No. 2
12 and our Shipp No. 1, of the excellent permeability of these
13 reservoirs.

14 We feel that wells spaced too closely
15 together will ineffectively drain the reservoirs. They will
16 interfere with one another because the permeability, area of
17 drainage will overlap significantly. We are trying to
18 provide for orderly drainage by spacing those wells 990 feet
19 apart to keep the area from overlapping so extensively.

20 Q What was the range of permeability in
21 millidarcies, Mr. Hair?

22 A I believe in that testimony the average
23 permeability was 42 millidarcies in this zone, which is
24 excellent.

25 Q Okay.

1 A We have seen permeabilities in the wells
2 subsequent to that, based on core data in the Viersen No. 2,
3 I believe of up to about 112 millidarices.

4 MR. KELLAHIN: I have nothing
5 further.

6 MR. TAYLOR: I think I have
7 another question.

8 MR. STOGNER: Okay, Mr. Taylor.

9

10 RE CROSS EXAMINATION

11 BY MR. TAYLOR:

12 Q Mr. Hair, for the wells that you've
13 drilled to date, if they were drilled 150 feet from the
14 center as proposed by the Division, would that provide for
15 more orderly drainage of the proration units?

16 A It would be difficult to say because I
17 don't know how many of them would still be producing.

18 Q From the information that you have to
19 date, will your wells drain 80 acres?

20 A Oh, yes.

21 Q And are you going -- by having the order
22 as -- as it was previously entered and as you're seeking it
23 remain today, would you be encroaching on -- on other units
24 because you're able to drain that amount of acreage? Would
25 you be draining other units?

1 A I would have to say theoretically, yes.
2 I would also have to say that theoretically, you're always
3 draining other units, depending on what the direction of
4 drainage is. We lay out artificial 80-acre units, not abso-
5 lute. If we did, we'd be in here arguing about geology for
6 the next three weeks in this area about what -- where are we
7 draining. It's quite possible we're draining other units.
8 It's very possible other units would be draining us.

9 Q Don't you think that to follow the Com-
10 mission's normal method of setting up units and fields by --
11 by adding to it every time a new well is drilled would be
12 more orderly than having a larger amount of acreage initial-
13 ly?

14 Wouldn't it make for a better definition
15 of the area and the fields for the area of oil?

16 A I think that is a moot point at -- in
17 this instance. It's kind of late. We've drilled a lot of
18 wells in here and we're still drilling. I'm afraid by the
19 time it's all heard, said and done, a lot of this area is
20 going to be filled with wells anyway.

21 The question itself, it's hard to say.
22 Theoretically, I suppose it's possible, yes.

23 Q Okay. Thank you.

24 MR. STOGNER: Mr. Kellahin, re-
25 direct?

1 MR. KELLAHIN: Nothing further,
2 thank you.

3
4 CROSS EXAMINATION

5 BY MR. STOGNER:

6 Q Mr. Hair, so I can get this straight in
7 my mind here, what you're opposing to in the OCD's rule, if
8 I got that right, is the change in the well locations.

9 A The change in the well locations; the
10 change in the distance between producing wells.

11 Q Do you have any problem with the amend-
12 ments to correct the discovery allowable?

13 A No, none whatsoever.

14 Q How about the horizontal expansion for the
15 boundaries?

16 A We have no problem with including all of
17 the northwest quarter.

18 So far as the (not clearly understood)
19 field as proposed, we prefer it remain at a fixed boundary
20 and with that one exception of changing the northwest quar-
21 ter.

22 Q Thank you, Mr. Hair.

23 MR. STOGNER: Are there any
24 other questions of this witness?
25

1 If not, he may be excused.

2 Mr. Kellahin, I'll ask you to
3 do the same, please, provide me a rough draft order --

4 MR. KELLAHIN: Yes, sir.

5 MR. STOGNER: -- in this case
6 today. I'll give Mr. Taylor and Mr. Kellahin ten days --
7 okay, Mr. Taylor, I'll give you ten days to provide me with
8 a rough draft order.

9 MR. STOGNER: Thank you, Mr.
10 Kellahin.

11 MR. CARR: Mr. Stogner, I have
12 a statement in this case on behalf of Tipperary.

13 MR. STOGNER: Okay, we'll call
14 now for closing statements.

15 Mr. Carr, you may go first.

16 Mr. Dickerson, if you choose,
17 you may go next.

18 Mr. Kellahin and Mr. Taylor.

19 Mr. Carr.

20 MR. CARR: Mr. Stogner, Tipper-
21 ary Oil and Gas Corporation supports the proposal of the Oil
22 Conservation Division.

23 We believe that the changes
24 proposed by the Division will solve the problems that were
25 created by the original order.

1 We believe that it's essential
2 that there be a buffer zone around this pool so that further
3 step-out development can occur without having to come back
4 to the Division for further hearings to change the pool
5 boundaries.

6 We're aware of the fact that
7 Chevron is considering the drilling of an additional well in
8 the northeast quarter of the southwest quarter in Section 4
9 and without a buffer zone we're afraid we'd be back here
10 again to once again take a look at the pool boundaries.
11 Therefore we feel that the buffer zone is essential.

12 We support your proposal to
13 drill wells within 150 feet of the center of a quarter quar-
14 ter section. Since the problems with this order were dis-
15 covered, we've had meetings with other operators in the pool
16 and with the Director of the Division and based on those
17 discussions, we have located the Tipperary 4 No. 2 Well at a
18 point 2130 from the west line, 1980 from the north line of
19 Section 4. This is within 150 feet of the center and we
20 support this portion of your rules.

21 If, however, you decide to en-
22 ter an order adopting the recommendation of Pennzoil, in
23 that case, because of the extremely good permeability in the
24 area, we would recommend that a 990 feet requirement between
25 wells be retained in the new order.

1 MR. STOGNER: Thank you, Mr.
2 Carr.

3 Mr. Dickerson?

4 MR. DICKERSON: Mr. Stogner,
5 TXO Production Corporation fully supports the position rep-
6 resented here today by Pennzoil.

7 MR. STOGNER: Thank you, Mr.
8 Dickerson.

9 Mr. Kellahin?

10 MR. KELLAHIN: Mr. Stogner, you
11 realize our position in this case. I won't repeat it at
12 length. We think, as Mr. Hair has testified, that signifi-
13 cant development has taken place. It seems to be rather ar-
14 tificial now to change well location rules when none of the
15 existing wells are unorthodox by changing that -- that rule,
16 we now make some six wells unorthodox.

17 The horse is out of the barn,
18 Mr. Examiner. It's a little late to change it for this
19 pool. We think the difficulty will be that subsequent oper-
20 ators wanting the same opportunity that existing wells have
21 in terms of locations are going to want exceptions from the
22 rule. We think it's manageable; this is a small pool, and
23 we believe the order ought to be left as it is.

24 MR. STOGNER: Thank you, Mr.
25 Kellahin.

1 Mr. Taylor.

2 MR. TAYLOR: Thank you, Mr.
3 Examiner, I would just like to ask that the application of
4 the Division be granted in order that we would provide for
5 more orderly development and that expansion of these areas
6 would be through the normal nomenclature procedure. The
7 methods employed in Order R-8062 are not within the para-
8 meters of common practice of the Division in setting up
9 units and fields, and it's our feeling that the common prac-
10 tice is more easily understood and followed by all the oper-
11 ators in the area.

12 MR. STOGNER: Thank you, Mr.
13 Taylor.

14 The record will remain open for
15 ten days pending the rough draft order by Mr. Taylor.

16 I'll also take administrative
17 notice of Case 8696 in which Order No. R-8062 was issued.

18 Is there anything further in
19 this case today?

20 If not, this will conclude this
21 case.

22

23 (Hearing concluded.)

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. 8790
heard by me on 18 December 1985.

M. J. [Signature] Examiner
Oil Conservation Division