

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

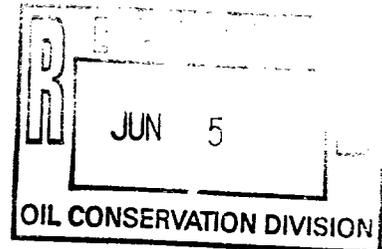
SANTA FE, NEW MEXICOHearing Date JUNE 1, 1995 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
Craig Young	Collins + W...	Midland TX
William F. Tall	Campbell, Tom & George	Santa Fe
Bruce Stubbs	STRATA Prod. Co.	Roswell
W. J. Johnson	Jellison & Jellison	Santa Fe
Danita Walker	Santa Fe Energy	Midland, TX
Mike Dell	SANTA FE Energy	Midland
PATRICK TOWER	RENCON	"
RANDY CATE	"	"
BARRY ZINZ	"	"
Jonas Breyer	Hinkley Law Firm	SF
Sealy Cavin	Shubert & Cavin Law Firm	Alb

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING)
CALLED BY THE OIL CONSERVATION)
DIVISION FOR THE PURPOSE OF)
CONSIDERING:)
APPLICATION OF COLLINS & WARE,)
INC.)

CASE NO. 11,290



ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

June 1st, 1995

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on Thursday, June 1st, 1995, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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I N D E X

June 1st, 1995
 Examiner Hearing
 CASE NO. 11,290

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A P P E A R A N C E S

FOR THE DIVISION:

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FOR THE APPLICANT:

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P.O. Box 2208
Santa Fe, New Mexico 87504-2208
By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 8:21 a.m.:

3 EXAMINER CATANACH: At this time I'll call Case
4 11,290.

5 MR. CARROLL: Application of Collins and Ware,
6 Inc., for an unorthodox oil well location, Lea County, New
7 Mexico.

8 EXAMINER CATANACH: Are there appearances in this
9 case?

10 MR. CARR: May it please the Examiner, my name is
11 William F. Carr with the Santa Fe law firm Campbell, Carr
12 and Berge.

13 We represent Collins and Ware, Inc., in this
14 matter, and I have one witness.

15 EXAMINER CATANACH: Any additional appearances?
16 Will the witness please stand to be sworn in?

17 (Thereupon, the witness was sworn.)

18 CRAIG YOUNG,
19 the witness herein, after having been first duly sworn upon
20 his oath, was examined and testified as follows:

21 DIRECT EXAMINATION

22 BY MR. CARR:

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

24 A. Craig Young.

25 Q. By whom are you employed?

1 A. Collins and Ware.

2 Q. What is your current position with Collins and
3 Ware?

4 A. Petroleum engineer.

5 Q. Mr. Young, have you previously testified before
6 this Division?

7 A. Yes, I have.

8 Q. At the time of that testimony, were your
9 credentials as a petroleum engineer accepted and made a
10 matter of record?

11 A. Yes, they were.

12 Q. Are you familiar with the Application filed in
13 this case on behalf of Collins and Ware, Inc.?

14 A. Yes, I am.

15 Q. Are you familiar with the status of the lands in
16 the subject area?

17 A. Yes, I am.

18 Q. And are you also familiar with the subject well?

19 A. Yes.

20 MR. CARR: Are the witness's qualifications
21 acceptable?

22 EXAMINER CATANACH: They are.

23 Q. (By Mr. Carr) Mr. Young, would you briefly state
24 what Collins and Ware seeks in this case?

25 A. We're seeking an unorthodox location for the T.D.

1 Pope Number 32 well, located 102 feet from the north line,
2 1430 from the east line, Section 35, Township 14 South,
3 Range 37 East, in the Denton-Devonian field.

4 Q. Does Collins and Ware also propose to
5 simultaneously dedicate this well and any other Devonian
6 well on this acreage?

7 A. We don't propose to simultaneously dedicate the
8 40 acres of this proration unit at this time.

9 Q. There is another well on the tract, is there not?

10 A. That is correct.

11 Q. And that well is abandoned?

12 A. That is correct.

13 Q. At this time, does Collins and Ware have any
14 intention of returning that well to production in the
15 Devonian formation?

16 A. No.

17 Q. When was this Application originally filed?

18 A. March 28th, 1995.

19 Q. Could you review for Mr. Catanach what happened
20 following the filing of the Application?

21 A. Originally, when the Application was filed, we
22 were advised there was no need for testimony or a hearing,
23 that everything could be done administratively since
24 offsetting tracts were under the same lease and ownership
25 was common throughout.

1 Evidently, after review of the situation, there
2 was some concern expressed over the temporarily abandoned
3 well that lies in the same 40-acre proration unit that the
4 subject well lies in, and I think at that time doing the
5 hearing was necessary.

6 Q. Was there also concern about the fact that
7 certain offsetting tracts were operated by S&J Operating
8 Company?

9 A. That is correct.

10 Q. Is Collins and Ware now the only operator of the
11 Devonian in this 40-acre spacing unit?

12 A. That is correct.

13 Q. What is the status of the subject well?

14 A. The well is currently drilling. We spudded the
15 well April 24th.

16 Q. And why did you go ahead with the drilling at
17 that time?

18 A. Basically, we were under a farmout agreement that
19 expired the 28th of April. We through subsequent
20 conversations had Hobbs approve an APD subject to our
21 location being approved here today.

22 Q. You had already received an extension of the
23 farmout agreement from S&J, had you not?

24 A. That is correct.

25 Q. And the offsetting properties are either

1 controlled by S&J or Collins and Ware?

2 A. That is correct.

3 Q. All right. Let's go to what has been marked as
4 Collins and Ware Exhibit Number 1. Would you identify
5 that, please?

6 A. Exhibit Number 1 is just a general map, giving
7 you the general location of the Denton-Devonian field.

8 Q. Okay, and let's go to Exhibit Number 2. What is
9 this?

10 A. Exhibit Number 2 are the farmout agreements that
11 Collins and Ware is subject to.

12 The first -- They're between four parties: Kerr-
13 McGee, a group known as Herd Oil and Gas Company, a group
14 also known as Polaris Production, and also a group known as
15 S&J Operating.

16 In addition, attached also is an extension on the
17 S&J farmout, extending that agreement.

18 Q. Now, under each of the four agreements -- And
19 there are four owners from whom you needed to obtain a
20 farmout; is that right?

21 A. That is correct.

22 Q. And under each of these agreements, Collins and
23 Ware is authorized to drill within the contract area?

24 A. That is correct.

25 Q. Is there a continuous-development requirement in

1 each of these agreements?

2 A. Yes, there is.

3 Q. And is this a typical arrangement, where Collins
4 and Ware will earn the drilling blocks once the well is in
5 fact drilled and completed in the Devonian?

6 A. That is correct.

7 Q. Let's go to Exhibit Number 4. Would you identify
8 that, please? I'm sorry, Exhibit Number --

9 A. Exhibit Number 3.

10 Q. -- Number 3.

11 A. Exhibit Number 3 is a structure map of the area.
12 The subject acreage is outlined in yellow. The structure
13 map was prepared in an Oil Conservation Commission report
14 many years ago.

15 The blue line running up through the middle of
16 the field separating the north and south is a somewhat
17 pressure-sealing fault that has been documented through
18 there.

19 The proposed well is also shown. And some infill
20 wells, which will be discussed later, are also indicated.

21 Q. Now, the contract area, the area covered by the
22 farmout agreements, is highlighted -- outlined in yellow;
23 is that correct?

24 A. That is correct.

25 Q. The subject well is sort of in the center of that

1 yellow?

2 A. That is correct.

3 Q. And then the three infill wells that we'll be
4 discussing later are in the southern portion of this?

5 A. That is correct.

6 Q. This structure map also shows two structural
7 highs in the Devonian in the area?

8 A. Yes, sir.

9 Q. All right. Let's go now to Exhibit Number 4.
10 Could you identify and review this, please?

11 A. This is a cumulative production map.

12 Basically, the size of the circle indicates the
13 total fluid produced from the wellbores. The percentage of
14 blue indicates the total percentage of that -- the
15 percentage of that total that was water. The percentage
16 that's green indicates the percentage that was oil.

17 It is overlaid on the structure map, as
18 previously identified.

19 Q. And what is the date of the data used to compile
20 that?

21 A. Through 10 of 1994.

22 Q. And what we're showing here is the fluid
23 withdrawn. This is not the same as a drainage radius?

24 A. That's correct, it's just withdrawals.

25 Q. Have you reviewed pressure data on the pool?

1 A. Yes, I have.

2 Q. And in your opinion is there adequate pressure to
3 make a successful producing well at the proposed location?

4 A. Yes, there is.

5 Q. What is the most recent pressure information you
6 have on wells in that area?

7 A. We had a well that was -- measured 4900 p.s.i. in
8 4 of 1984.

9 In addition, we re-entered a well in Section 2 --
10 or, excuse me, Section 35, and we're able to produce a
11 substantial amount of fluid.

12 Q. Let's go now to the next exhibit, Exhibit Number
13 5. What does this show?

14 A. This is a drainage-radius map that attempts to
15 show some basic calculations on what we feel the drainage
16 radius around each particular wellbore has been.

17 Q. Now, Mr. Young, the drainage areas shown on the
18 map with the dark green circles look about the same size;
19 is that correct?

20 A. Yeah, they do. They vary somewhat. The scale of
21 the map is probably more a function of that. But the point
22 being, they range from a low of 411 up to, say, 855.

23 Q. If we go to the pages attached to this exhibit,
24 do these actually show the drainage radius for each of the
25 wells within the contract area?

1 A. They do. That is the last column on the right.

2 Q. How actually did you go about calculating these?

3 A. Through evaluation of prior engineering reports
4 and -- that were done on the field, and review of log and
5 core information. Very difficult to do drainage-radius
6 calculations in this area, just because the data is so old
7 and it's sketchy.

8 What we did was take the gross interval from the
9 top of the Devonian formation down to the estimated oil-
10 water contact that's been documented in previous hearings
11 and take 30 percent of that gross interval to be net pay.

12 Upon our review of logs that we did have in the
13 area, and prior engineering reports, this seemed to be a
14 valid number.

15 After doing that, we used 8.5-percent porosity
16 and 20-percent water saturation in the net-pay intervals,
17 as well as considering the gross pay to have a matrix of
18 2-percent porosity with 40-percent water saturation, and
19 just volumetrically calculated the oil in place, and then
20 assumed a 50-percent recovery factor to calculate the
21 drainage radius.

22 Q. Is a 50-percent recovery factor reasonable for
23 wells of this nature?

24 A. Yes.

25 Q. What sort of a reservoir drive mechanism do you

1 have?

2 A. A water drive.

3 Q. Let's go to Exhibit Number 6. Could you first
4 explain to Mr. Catanach what this is designed to show and
5 then review the information on the exhibit?

6 A. Basically, this is just a visual concept of what
7 we feel the reservoir model looked like in initial
8 conditions. There was a lot of karsting, you had a very
9 large oil column over a water column, with a lot of
10 permeability variations, fracturing, karsting, some things
11 like that.

12 Q. And so page 1 of this exhibit shows the reservoir
13 in its original condition?

14 A. That's correct.

15 Q. What does the next page indicate?

16 A. The next page is our concept of how the reservoir
17 currently exists today, with extreme variations in
18 saturations in the vertical profile caused by the
19 permeability barriers, the fracturing, as well as high
20 withdrawal rate, things like that, leaving behind
21 substantial amounts of oil.

22 Q. So the blue on this exhibit is the water?

23 A. Yeah, and the green is the oil.

24 Q. And the objective here is to place wells to
25 attempt to recover that oil that remains in the green-

1 shaded area?

2 A. That is correct.

3 Q. Let's go now to what has been marked as Collins
4 and Ware Exhibit Number 7. Could you first identify what
5 this exhibit contains and then review the information
6 therein?

7 A. Exhibit 7 contains production decline curves from
8 three of the infill wells and their offsets.

9 If we refer back to Exhibit Number 3, the three
10 red dots in the south half of the field were wells that
11 were infill drilled after a substantial amount of
12 production was achieved from the reservoir.

13 What we're trying to show here is that these
14 wells made a substantial amount of oil without affecting
15 the offsets.

16 For example, State T Number 9, which is in the
17 Section 2, the southwest southwest, was drilled in 1977,
18 has a reported oil production of over 121,000 barrels a
19 day.

20 Attached are the four -- or the production
21 decline curves for the four offset wells, the four 40-acre
22 offsets immediately offsetting that well.

23 It is our opinion that the Number 9 recovered an
24 additional 121,000 barrels to date without affecting the
25 four offset wells.

1 Q. Okay. Now, let's go to the next infill well.
2 That's the Devon Energy Well Number 7 that you've got five
3 pages back in this exhibit.

4 A. That is correct. It is a well -- the other red
5 dot in Section 2.

6 Q. What does this exhibit show about that well?

7 A. This well was drilled in 1974 and has made over
8 507,000 barrels of oil. Pretty substantial recovery for an
9 infill well.

10 Again, we have the four production-decline curves
11 from the offset wells.

12 Q. And do you see any impact of the infill well on
13 production from those offsets?

14 A. No.

15 Q. Let's go now to the next infill well, the Barbara
16 Fasken Number 17, which is again four or five pages back in
17 this exhibit.

18 A. This is the furthestmost south red dot. It's the
19 Fasken Well Number 17.

20 This well was put on production in 1977, early
21 1977. It has recovered over 328,000 barrels of oil.

22 And again, as with the others, we have the four
23 offsetting wells, their production curves attached, and
24 again we see no substantial effect on the four wells.

25 Q. Now, Mr. Young, what conclusions can you reach

1 from your study of this area?

2 A. Basically that there's a substantial amount of
3 oil left in the reservoir that has been bypassed.

4 Q. In your opinion, can this oil be recovered by
5 infill development of this pool?

6 A. Yes.

7 Q. Can you identify what has been marked as Collins
8 and Ware Exhibit Number 8?

9 A. This is a waiver of protest for the unorthodox
10 location from Stephens and Johnson, the other operator
11 within the acreage, the subject acreage.

12 Q. In the farmout area, are all tracts on which
13 these infill wells would encroach either operated by S&J or
14 by Collins and Ware?

15 A. That is correct.

16 Q. And you have farmouts from the other interest
17 owners in those tracts?

18 A. That is correct.

19 Q. What additional development plans does Collins
20 and Ware have for this area?

21 A. If this project is successful, we have a
22 potential of six other locations in the acreage that's
23 indicated, and we would proceed with those.

24 Q. In your opinion, will approval of this
25 Application result in the recovery of hydrocarbons that

1 otherwise would be left in the ground?

2 A. Yes, definitely, there is currently no production
3 going on on that lease now.

4 Q. Will approval of the Application otherwise be in
5 the best interest of conservation and the protection of
6 correlative rights?

7 A. Yes.

8 Q. Were Exhibits 1 through 8 either prepared by you
9 or compiled under your direction?

10 A. Yes.

11 MR. CARR: At this time, Mr. Catanach, we would
12 move the admission into evidence of Collins and Ware
13 Exhibit Numbers 1 through 8.

14 EXAMINER CATANACH: Exhibit Numbers 1 through 8
15 will be admitted as evidence.

16 MR. CARR: And that concludes my direct
17 examination of Mr. Young.

18 EXAMINATION

19 BY EXAMINER CATANACH:

20 Q. Mr. Young, does Collins and Ware currently -- The
21 currently operate unit letter B of that Section 35?

22 A. We were shown as the operator of record. The
23 operations were changed to us. In a -- Collins and Ware,
24 in an earlier project, attempted to re-enter some wellbores
25 in the area. Those efforts were not successful in

1 maintaining -- in developing production, so we have expired
2 -- or our rights to the Devonian had expired. We may, in
3 fact, be operator of that particular wellbore in that
4 location.

5 Q. You're currently drilling the Number 32 well?

6 A. That is correct.

7 Q. So I assume that you do have the rights to drill
8 that well?

9 A. That is correct.

10 Q. Okay. The -- Who is the current operator of the
11 acreage -- of the additional acreage outlined in yellow at
12 the current time?

13 A. S&J Operating.

14 Q. Okay.

15 MR. CARR: Mr. Catanach, if I might, your
16 question about the operations of Unit B, those are -- when
17 the well is completed, would be assigned under the farmout,
18 and I think Mr. Young, when he said about the other
19 development, he was talking about the tract due north.

20 There is a question about --

21 THE WITNESS: Oh, yeah.

22 MR. CARR: -- who operates the 40 acres due north
23 of this. There was an earlier attempt by Collins and Ware.
24 The acreage was assigned to them; the well was
25 unsuccessful. They have a right to go back and then attempt

1 to complete again, but that's why it is -- there's a
2 question about -- It's either Collins and Ware or S&J, just
3 depending on the status of the transaction at this moment.
4 That's the 40 acres due north of the location.

5 Q. (By Examiner Catanach) Okay, but Collins and
6 Ware has the right to drill that well at this point in
7 time, and if they do make a producing well then they earn
8 the acreage; is that --

9 A. That is correct.

10 Q. Okay. S&J waived objection to this location?

11 A. That is correct.

12 Q. Okay. I noticed on Exhibit Number 8, it's not
13 quite the same location. You've got it listed on the
14 waiver as 103 feet north and 1431 feet east. Does that
15 make any kind of difference?

16 MR. CARR: When they surveyed it, they were, Mr.
17 Catanach, about six inches off. And I think if you average
18 one way, you get 142 feet; if you go the other, you get --
19 I mean, you get 102 feet if you go one way, you get 103 if
20 you go the other.

21 So it's a one-foot discrepancy. And I think it's
22 just because they are -- You know, there's a six-inch --
23 It's between those two feet.

24 EXAMINER CATANACH: Okay? Stephens and Johnson
25 is aware, though, that it's --

1 MR. CARR: Yes, absolutely.

2 EXAMINER CATANACH: -- This may not quite be the
3 exact location. Okay.

4 Q. (By Examiner Catanach) The well that's currently
5 in that quarter-quarter section -- the Number 13, is it?

6 A. Yes, sir.

7 Q. It's currently abandoned, you said?

8 A. Temporarily abandoned.

9 Q. Temporarily abandoned.

10 A. That is correct.

11 Q. It's no longer producing the pool?

12 A. That is correct.

13 Q. And you have no intention of trying to re-
14 establish production in that well?

15 A. No, sir.

16 Q. Will it be plugged?

17 A. Stephens and Johnson is the operator -- or S&J
18 Operating is the operator of that well, and once production
19 is established I'm sure it will be.

20 There's a Wolfcamp producer offsetting it. So
21 I'm sure it will be, but I hate to speak for them. It's
22 their wellbore.

23 Q. So if you were in that acreage, the Number 13
24 well will still be Stephens and Johnson's wellbore?

25 A. Wellbore, but they will have no rights to the

1 Devonian in that wellbore.

2 MR. CARR: It goes to a deeper horizon?

3 THE WITNESS: Or shallower, or anything but the
4 Devonian. I'm not sure what their rights -- what their
5 other rights are, whether they'd want to make a water-
6 disposal well or something similar to that.

7 But they would have in that 40-acre proration
8 unit no right to the Devonian formation.

9 Q. (By Examiner Catanach) The remaining three wells
10 in that quarter section, are they producing at this time,
11 do you know?

12 A. No.

13 Q. They are not producing?

14 A. That is correct. The Number 5, which is in that
15 quarter section, the southwest, is plugged and abandoned.

16 Q. Okay. Mr. Young, have you calculated how much
17 oil you may recover by drilling at this location?

18 A. Yes, we have done that. We think the potential
19 exists anywhere from 100,000 to 350,000 barrels of oil.
20 Due to the nature of the data being old, those numbers are
21 very difficult to get an exact number on.

22 Q. How did you determine what location to drill this
23 well at?

24 A. We had basically two priorities.

25 One was to get away from production, because we

1 thought -- a lot of the coning issues that we visually
2 represented in the pictures.

3 And the other was, we wanted to try to achieve as
4 much structural advantage as we could.

5 This location that we've picked here is a
6 combination of those two efforts, plus a third effort
7 physically would fit in that location, from a field
8 standpoint. There's a lot of pipelines running through the
9 area, water lines, things like that.

10 Q. So you try to get highest on the structure?

11 A. Try to get highest on structure, get away from
12 production.

13 Q. Okay. You mentioned an oil-water contact. Do
14 you know where that is in the reservoir?

15 A. 8915, I believe. Subsea depth is 8915. Just a
16 second.

17 8915 subsea.

18 Q. Your Exhibit Number 7, I take it you've examined
19 those exhibits and determined that when the infill well was
20 brought on line, there wasn't any effect on the offset
21 wells; is that correct?

22 A. That is correct. If you look at the production
23 history, prior to the drilling of the well production
24 bounces around quite a bit. So once these wells -- Once
25 this well was drilled, you still see some bouncing around.

1 It's a volume operation where they're moving a
2 lot of fluid. Those type of operations are subject to
3 fluctuations due to mechanical failures and things like
4 that.

5 But we saw no visual effect of loss of reserves
6 from the other wells.

7 Q. Okay.

8 A. And in our situation, not being any production in
9 the area, on the four offsets...

10 Q. Mr. Young, is there extensive potential in this
11 pool for this type of infill drilling?

12 A. I think so.

13 EXAMINER CATANACH: I have nothing further, Mr.
14 Carr.

15 MR. CARR: That concludes our presentation in
16 this case, Mr. Catanach.

17 EXAMINER CATANACH: There being nothing further
18 in this case, Case 11,290 will be taken under advisement.

19 (Thereupon, these proceedings were concluded at
20 8:47 a.m.)

21 * * *

22 I do hereby certify that the foregoing is
23 a complete record of the proceedings in
the public hearing of Case No. 11290
heard by me on June 1 1995

24 David R. Catanch, Examiner
25 Oil Conservation Division

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL June 1st, 1995.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1998