

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. 10,983

REPORTER'S TRANSCRIPT OF PROCEEDINGSEXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

May 26, 1994

JUL 8 1994

Santa Fe, New Mexico

This matter came on for hearing before the Oil
 Conservation Division on Thursday, May 26, 1994, at Morgan
 Hall, State Land Office Building, 310 Old Santa Fe Trail,
 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

May 26, 1994
 Examiner Hearing
 CASE NO. 10,983

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APPEARANCES

APPLICANT'S WITNESSES:

JAMES E. ORSETH

Direct Examination by Mr. Carr

Examination by Examiner Catanach

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 13

REPORTER'S CERTIFICATE

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* * *

E X H I B I T S

	Identified	Admitted
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Exhibit 6	10	13
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* * *

A P P E A R A N C E S

FOR THE DIVISION:

RAND L. CARROLL
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Santa Fe, New Mexico 87504

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 11:49 a.m.:

3 EXAMINER CATANACH: At this time we will call
4 Case 10,983.

5 MR. CARROLL: Application of Collins and Ware,
6 Inc., for a high-angle/horizontal directional drilling
7 pilot project, special operating rules therefor, a
8 nonstandard oil proration unit and a special project
9 allowable, Eddy County, New Mexico.

10 EXAMINER CATANACH: Are there appearances in this
11 case?

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

15 I represent Collins and Ware, Inc., in this
16 matter, and I have one witness.

17 EXAMINER CATANACH: Any additional appearances?

18 Would you please swear in the witness, Mr.
19 Carroll?

20 JAMES E. ORSETH,
21 the witness herein, after having been first duly sworn upon
22 his oath, was examined and testified as follows:

23 DIRECT EXAMINATION

24 BY MR. CARR:

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

1 A. My name is James Orseth.

2 Q. And where do you reside?

3 A. I reside at Midland, Texas.

4 Q. By whom are you employed?

5 A. I am employed by Collins and Ware.

6 Q. And what is your current position with Collins
7 and Ware?

8 A. I am vice president of operations.

9 Q. Have you previously testified before this
10 Division?

11 A. No, sir, I have not.

12 Q. Could you review for Mr. Catanach your
13 educational background and work experience?

14 A. I received a bachelor of science in civil
15 engineering in 1969 from the University of North Dakota. I
16 have spent 25 years as a petroleum engineer working
17 throughout the Permian Basin in southeast New Mexico and
18 Texas.

19 Q. Are you familiar with the Application filed in
20 this case for Collins and Ware?

21 A. Yes, sir, I am.

22 Q. And are you familiar with the proposed well and
23 the subject area?

24 A. Yes, sir, I am.

25 MR. CARR: We tender Mr. Orseth as an expert

1 witness in petroleum engineering.

2 EXAMINER CATANACH: Mr. Orseth is so qualified.

3 Q. (By Mr. Carr) Initially, would you summarize
4 what Collins and Ware seeks with this Application?

5 A. Collins and Ware seeks approval of a
6 directionally drilled horizontal wellbore.

7 We also request exceptions to the Herradura Bend-
8 East Delaware Pool rules to permit exemptions from existing
9 well-location requirements. I request that we be required
10 only to comply with the results that provide for a setback
11 from the outer boundary of the acreage to be dedicated to
12 the well.

13 I also request exemptions from the acreage-
14 dedication requirements to permit dedication of additional
15 acreage to the well.

16 I also request exemptions from the oil-well-
17 allowable limitations to permit an increased allowable
18 based on the total acreage dedicated to the well.

19 Q. Generally, what is the reason for this
20 Application?

21 A. The reason is to extend the existing wellbore
22 into the producing formation and increase production.

23 Q. And what results are you hoping to obtain?

24 A. We hope to obtain increased recoverable reserves,
25 as well as improved deliverability rates.

1 Q. Let's go to Exhibit Number 1, your land map.
2 Would you review this exhibit for Mr. Catanach?

3 A. Exhibit Number 1 is a land plat showing where
4 Collins and Ware acreage is in this west half of Section
5 31.

6 It also shows the existing vertical wellbore
7 located at 2310 from the south line and 330 from the west
8 line.

9 It also shows the proposed bottomhole location,
10 that being 1970 from the north line and 330 from the west
11 line.

12 Q. Offsetting ownership is also indicated on this
13 exhibit, is it not?

14 A. Offsetting operators' ownership is also on this
15 land plat.

16 Q. And the only development on the tract we're
17 talking about today is the vertical wellbore which you
18 propose to re-enter and drill horizontally?

19 A. That is correct.

20 Q. And what is the status, Mr. Orseth, of the
21 acreage you propose to dedicate to this well?

22 A. The acreage that I propose to dedicate to it will
23 be the two 40-acre proration units that will be intersected
24 by the horizontal wellbore.

25 Q. And is the ownership, both working interest and

1 royalty interest, common throughout this 80-acre tract?

2 A. Yes, sir, we have both common royalty interest
3 and working interest on our west half of 31.

4 Q. Could you describe generally the characteristics
5 of the subject formation?

6 A. The subject formation is the basal Brushy Canyon.
7 It is a fine-grade sandstone.

8 Q. Let's go to Exhibit Number 2, your structure map.
9 Would you review this for the Examiner, please?

10 A. Exhibit Number 2 represents a structure map that
11 is mapped on the top of the Collins Sand within the basal
12 Brushy zone.

13 It represents our wellbore being on the eastern
14 flank of that structure, and that the horizontal wellbore
15 will be basically on strike with the structure.

16 Q. It's basically flat in this area, is it not?

17 A. That is correct. We do not anticipate gaining
18 any structural advantage, significant structural advantage.

19 Q. All right. Let's go to Exhibit Number 3. Will
20 you identify that and review that for Mr. Catanach?

21 A. Exhibit Number 3 is an isopach map representing
22 the sand thickness for the Collins sand.

23 You'll notice on the heading in the bottom of the
24 exhibit that there's two numbers represented by each well
25 represented on this map. The first number represents the

1 gross thickness of the sand, and I'll point out that it
2 ranges from the low side of 88 on up to the high side of
3 174.

4 The second number represents the net pay and sand
5 thickness, that being greater than a 14-percent porosity
6 cutoff.

7 Q. In the area which is the subject of this
8 Application, do you have sufficient thickness to warrant to
9 attempt a horizontal wellbore?

10 A. Yes, sir, we anticipate to be able to control the
11 bit within a ten-foot vertical tolerance.

12 Q. And so you should have no problem maintaining
13 your position within the formation?

14 A. Not within the 80 to 100 feet of anticipated sand
15 thickness.

16 Q. Mr. Orseth, this exhibit also contains a trace
17 for a cross-section; is that correct?

18 A. That is correct.

19 Q. Is that your next exhibit?

20 A. The next exhibit is a stratigraphic cross-
21 section.

22 Q. That's Exhibit Number 4?

23 A. Exhibit Number 4. That trace is represented on
24 the isopach map. It's a west-to-east cross-section with
25 the subject wellbore that we operate being on the right-

1 side of the cross-section, and it shows the gross
2 thickness, as we mentioned on the isopach, as well as the
3 net pay cutoff represented in red.

4 Q. Can you identify for Mr. Catanach what has been
5 marked Collins and Ware Exhibit Number 5?

6 A. Collins and Ware Exhibit Number 5 is a wellbore
7 schematic representing the existing vertical wellbore,
8 showing the casing that's in that well and where it's sets
9 the various depths. We have 5 1/2 casing set at 6500 feet.

10 Q. And what is the top of the cement in this well?

11 A. The top of the cement on the existing well is at
12 4145.

13 Q. Let's move on to Exhibit Number 6, and I'd ask
14 you, using this exhibit, to review for the Examiner the
15 details of how you actually propose to horizontally drill
16 this well.

17 A. Okay, Exhibit Number 6 represents a schematic
18 showing the proposed work.

19 The first action that will take place will be a
20 cement squeeze job to squeeze off the existing
21 perforations, from 6104 to 6310.

22 We will then cut a 50-foot mill section, removing
23 the 5-1/2-inch casing from 5050 to 6100 feet.

24 At that point we will set a kickoff plug, we'll
25 cement, we'll dress it off to 6065.

1 We will go in the hole with a short-radius-angle-
2 building downhole motor and build the curve with a radius
3 of curvature of 50 feet.

4 At that point we will be 90 degrees horizontal,
5 and we will attempt to drill 1000 feet laterally in a
6 northerly direction.

7 Q. Have you used a short-radius tool in the past?

8 A. Yes, sir, we have. We have successfully used the
9 short-radius drilling technique.

10 Q. As you drill the horizontal portion of this hole,
11 will the well remain set back from the outer boundary of
12 the dedicated acreage at least the 330 feet that are
13 required by the pool rules?

14 A. Yes, sir.

15 Q. What area do you actually anticipate to be
16 drained by this well?

17 A. We anticipate to drain the two 40-acre proration
18 units for a total of 80-acre proration.

19 Q. And you're seeking an allowable for the well
20 equal to the sum of those two 40-acre allowables?

21 A. That is correct, yes, sir.

22 Q. Do you expect there will be any excess drainage
23 from offsetting tracts?

24 A. No, sir, we do not expect that.

25 Q. Are you able to anticipate what the producing

1 life of this well should be?

2 A. We anticipate the producing life to be
3 approximately 20 years.

4 Q. Does the dedicated acreage contain federal lands?

5 A. Yes, sir, it does.

6 Q. Have you reviewed this proposal with the Bureau
7 of Land Management?

8 A. Yes, we have, and they have no objections.

9 Q. At the conclusion of the drilling, will you run a
10 directional survey on the well?

11 A. Yes, sir, we will.

12 Q. And will that be provided to the Oil Conservation
13 Division?

14 A. Yes, sir, it will.

15 Q. Has notice of this Application and hearing been
16 provided to offsetting owners, as required by Oil
17 Conservation Division rules?

18 A. Notice has been provided to the offset operators.

19 Q. And is Exhibit Number 7 an affidavit confirming
20 that that notice has been provided?

21 A. That is correct.

22 Q. Mr. Orseth, in your opinion will the granting of
23 this Application and the drilling of this well result in
24 the recovery of hydrocarbons that otherwise will not be
25 recovered?

1 A. Yes, sir, that is our belief.

2 Q. Will approval of the Application otherwise be in
3 the best interest of conservation, the prevention of waste
4 and the protection of correlative rights?

5 A. Yes, sir.

6 Q. Were Exhibits 1 through 7 either prepared by you
7 or compiled at your direction?

8 A. Yes, sir, they were.

9 MR. CARR: At this time, Mr. Catanach, we move
10 the admission into evidence of Collins and Ware Exhibits 1
11 through 7.

12 EXAMINER CATANACH: Exhibits 1 through 7 will be
13 admitted into evidence.

14 MR. CARR: And that concludes my direct
15 examination of Mr. Orseth.

16 EXAMINATION

17 BY EXAMINER CATANACH:

18 Q. Mr. Orseth, what is the current status of this
19 proposed well?

20 A. This well is currently producing. Its current
21 producing rate is about 25 barrels of oil a day.

22 Q. Do you seek to enhance the producing rate of this
23 well?

24 A. Yes, I anticipate that we may get as much a four-
25 or five-fold increase in daily producing rates.

1 Q. Is the -- The target zone, is that simply the
2 Collins sand?

3 A. That is correct. As you've noted on the cross-
4 section, there are other producing sands in the area. We
5 feel like the Collins sand has the consistency and
6 uniformity across that area that we can effectively stay
7 within that sandbody.

8 Q. The direction of the horizontal drilling is based
9 upon trying to get into the thicker portion of the
10 reservoir?

11 A. That is correct, as noted on the isopach.

12 Q. Is that the sole geologic reason?

13 A. No, the second is more of an engineering reason.
14 The Collins sand is somewhat low permeability, and what
15 we're looking for is to increase the drainage by extending
16 the wellbore in the sand.

17 Q. Is this sand fractured at all?

18 A. It is not fractured in its natural state, but a
19 frac treatment had been put on the zone prior to -- well,
20 on the initial completion.

21 Q. Would Collins and Ware run a survey to determine
22 the location of the wellbore at the kickoff point?

23 A. Yes, sir, we'll run a complete gyroinclination
24 survey on the existing vertical hole before we commence
25 operation.

1 Q. Okay, and you don't utilize a survey while
2 drilling type of --

3 A. Yes, sir, we'll have an MWD in the hole and the
4 steering tool, and we'll know at all times what direction
5 that we are going.

6 EXAMINER CATANACH: Okay. I don't think I have
7 anything else, Mr. Carr.

8 MR. CARR: We have nothing further in this case,
9 Mr. Catanach.

10 EXAMINER CATANACH: Okay. There being nothing
11 further in this case, Case 10,983 will be taken under
12 advisement.

13 (Thereupon, these proceedings were concluded at
14 12:04 p.m.)

15 * * *

16
17 I do hereby certify that the foregoing is
18 a complete record of the proceedings in
19 the Examiner hearing of Case No. 10983,
heard by me on May 26, 1990.
20 David P. Catanach, Examiner
Oil Conservation Division
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1 CERTIFICATE OF REPORTER

2
3 STATE OF NEW MEXICO)
4) ss.
COUNTY OF SANTA FE)

5
6 I, Steven T. Brenner, Certified Court Reporter
7 and Notary Public, HEREBY CERTIFY that the foregoing
8 transcript of proceedings before the Oil Conservation
9 Division was reported by me; that I transcribed my notes;
10 and that the foregoing is a true and accurate record of the
11 proceedings.

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

16 WITNESS MY HAND AND SEAL, June 15, 1994.

17 
18 STEVEN T. BRENNER
19 CCR No. 7
20

21 My commission expires: October 14, 1994
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