

1 STATE OF NEW MEXICO
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
3 OIL CONSERVATION DIVISION
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7 IN THE MATTER OF THE HEARING)
8 CALLED BY THE OIL CONSERVATION)
9 DIVISION FOR THE PURPOSE OF)
10 CONSIDERING:)
11 APPLICATION OF ENRON OIL & GAS COMPANY

CASE NO. 11177 and
CASE NO. 11182

11 REPORTER'S TRANSCRIPT OF PROCEEDINGS
12 EXAMINER HEARING
13

14 BEFORE: David Catanach, Hearing Examiner

JAN 30

15
16 January 5, 1995
17 Santa Fe, New Mexico
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19 This matter came on for hearing before the Oil
20 Conservation Division on January 5, 1995, at 2040 South
21 Pacheco, Santa Fe, New Mexico, before Diana S. Abeyta, RPR,
22 Certified Court Reporter No. 168, for the State of New
23 Mexico.
24
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I N D E X

January 5, 1995
 Examiner Hearing
 CASE NO. 11177 and
 CASE NO. 11182

PAGE

APPEARANCES

3

ENRON OIL & GAS COMPANY'S WITNESSES:

PATRICK J. TOWER

Examination by Mr. Carr

5

Examination by Examiner Catanach

9

RANDALL CATE

Examination by Mr. Carr

12

Examination by Examiner Catanach

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REPORTER'S CERTIFICATE

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E X H I B I T S

Exhibit 1

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ADMTD

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Exhibit 2

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Exhibit 3

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Exhibit 4

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A P P E A R A N C E S

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FOR THE DIVISION:

RAND CARROLL, ESQ.
Legal Counsel
Oil Conservation Division
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Santa Fe, New Mexico 87505

FOR THE APPLICANT:

CAMPBELL, CARR, BERGE & SHERIDAN, P.A.
Post Office Box 2208
Santa Fe, New Mexico 87504-2208
BY: WILLIAM F. CARR, ESQ.

1 EXAMINER CATANACH: Okay, at this time we'll call
2 Case 11177.

3 MR. CARROLL: Application of Enron Oil & Gas
4 Company for an unorthodox oil well location in Lea County,
5 New Mexico.

6 EXAMINER CATANACH: Are there appearances in this
7 case?

8 MR. CARR: May it please the Examiner, my name is
9 William F. Carr with the Santa Fe law firm of Campbell,
10 Carr, Berge & Sheridan. I represent Enron Oil & Gas Company
11 in this case, and I have two witness.

12 EXAMINER CATANACH: Any additional appearances?

13 MR. CARR: Mr. Catanach, at this time I would
14 request that this case be consolidated with case 11182,
15 which is also the application of Enron Oil & Gas Company for
16 an unorthodox oil well location. The wells offset each
17 other, and they both are at unorthodox locations at the
18 request of the Bureau of Land Management. The testimony
19 will be virtually identical.

20 EXAMINER CATANACH: Okay, at this time we will
21 call Case No. 11182.

22 MR. CARROLL: The application of Enron Oil & Gas
23 Company for an unorthodox oil well location, Lea County, New
24 Mexico.

25 EXAMINER CATANACH: Any additional appearances in

1 this case? Will the witnesses please stand to be sworn in.

2 (Witnesses sworn.)

3 PATRICK J. TOWER,

4 the witness herein, after having been first duly sworn

5 upon his oath, was examined and testified as follows:

6 EXAMINATION

7 BY MR. CARR:

8 Q. Will you state your name for the record, please.

9 A. Patrick J. Tower.

10 Q. Where you do you reside?

11 A. Midland, Texas.

12 Q. By whom are you employed?

13 A. Enron Oil & Gas Company.

14 Q. What is your current position with Enron?

15 A. Project landman.

16 Q. Mr. Tower, have you previously testified before
17 this division?

18 A. Yes.

19 Q. At the time of that testimony were your
20 credentials as petroleum landman accepted and made a matter
21 of record?

22 A. Yes.

23 Q. Are you familiar with the application filed in
24 this case?

25 A. Yes.

1 Q. Are you familiar with the status of the lands
2 involved in this matter?

3 A. Yes, I am.

4 MR. CARR: Mr. Catanach, we tender Mr. Tower as a
5 expert witness in petroleum land matters.

6 EXAMINER CATANACH: Mr. Tower is so qualified.

7 Q. (BY MR. CARR) Would you briefly state what Enron
8 seeks with this application.

9 A. Yes. Under Case 11177, Enron seeks approval for
10 an unorthodox oil well location in the undesignated Red
11 Hills-Bone Spring Pool for its Hallwood "1" Federal Well No.
12 3, and in case 11182, further seeks approval for an
13 unorthodox oil well location to drill its Hallwood 1 Federal
14 No. 4 well in the same pool.

15 Q. Have you prepared exhibits for presentation here
16 today?

17 A. Yes, I have.

18 Q. Would you refer to what has been marked as Enron
19 Exhibit No. 1. Identify this exhibit and review it for
20 Mr. Catanach.

21 A. Yes, Exhibit No. 1 is a land plat depicting the
22 area for the two wells involved in this pool. On this land
23 plat you will notice that the well locations are spotted in
24 Section 1, Township 25 South, 33 East, in Lea County,
25 New Mexico. This pool is currently spaced on 80-acre

1 spacing. On this plat there are a series of dots. The red
2 dots are the actual locations that they are being applied
3 for. The green dots are the original locations which Enron
4 sought.

5 The spacing for these two wells, there's a red
6 outline around each one, or stand-up 80-acre proration
7 units. With the No. 3 location, the allocated proration
8 unit to be the W 1/2 of the SE 1/4 of Section 1, and with
9 the No. 4 well, the allocated proration unit to be the E 1/2
10 of the SW 1/4. These locations -- I'll get into in a minute
11 the reasons for moving them.

12 The one other thing that the land plat will
13 identify are all the offset operators. In the case of these
14 two particular wells, Enron is the operator on every side of
15 these wells. Therefore, no notice was sent out to offset
16 operators, as we are offset operator.

17 Q. Would you provide Mr. Catanach with the
18 unorthodox well locations that you are seeking.

19 A. Yes. The No. 3 location is located 1,430 feet
20 from the south line, and 1,830 feet from the east line of
21 Section 1. The No. 4 location is located 1,060 feet from
22 the south line and 1,650 feet from the west line. The
23 original pool rules require for the stand-up 80's to have
24 the 150 foot setback rule -- or 150 foot setback from the
25 center of each quarter-quarter section. So that you can see

1 that both of these locations have stepped away from that in
2 their respective quarter-quarter sections, and thus the
3 hearing.

4 Additionally, the reason for moving them in the
5 case of the No. 3 location, these are on federal lands, and
6 in the process of the permitting, an archaeological hot spot
7 was encountered at the original location, which is depicted
8 in green.

9 Q. For which well?

10 A. This is for the No. 3, which was an orthodox
11 location. The BLM has, in essence, required us to move
12 this, to obtain a permit through them. The other location
13 that would be orthodox within this 80 would be the remaining
14 quarter-quarter section, being the SW 1/4 of the SE 1/4.
15 However, our next witness, Mr. Cate, will testify there are
16 drainage concerns to other wells that preclude us from
17 moving to that location.

18 Q. Okay, what about the No. 4 well?

19 A. The No. 4 well was moved at the request, again,
20 of the BLM in the permitting process, due to surface
21 drainage reasons. The original location at an orthodox
22 location was in a drainage area; therefore, we had to move
23 out of that. There is, again, an alternative orthodox
24 location in the other quarter-quarter section to the north;
25 however, again, Mr. Cate will present some testimony where

1 there are geological concerns where such location is not
2 acceptable. Thus we have moved it to the north and to the
3 west to get out of this drainage pattern.

4 Q. Mr. Tower, let's go to what has been marked Enron
5 Exhibit No. 2. Could you identify this?

6 A. Exhibit No. 2 is a topographical map -- I believe
7 the contours are on 10 foot -- depicting again the two
8 locations that were identified with the same colored dots,
9 red and green, on the land plat. And specifically, the
10 reason for this plat is to deal with the No. 4 location and
11 show you the drainage area. The green dot was the original
12 orthodox location, and as you can see it's well within that
13 drainage pattern, and the BLM has mandated that we move to
14 the north and west, as you can see, to get out of this
15 drainage area.

16 Q. Mr. Tower, were Exhibits 1 and 2 either prepared
17 by you or compiled under your direction?

18 A. Yes, they were.

19 MR. CARR: Mr. Catanach, at this time we move the
20 admission of Enron Exhibits 1 and 2.

21 EXAMINER CATANACH: Exhibits 1 and 2 will be
22 admitted as evidence.

23 MR. CARR: And that concludes my direct
24 examination of Mr. Tower.

25 EXAMINATION

1 BY EXAMINER CATANACH:

2 Q. Mr. Tower, on that No. 4 location, what kind of
3 drainage area is that? Is that river?

4 A. It's just, I believe -- I'm not sure if there is
5 actually any water. It's just a drainage for water or the
6 valley out there where water can drain, kind of a ditch
7 area. However, I believe that's the extent of it. It's for
8 runoff water.

9 Q. Do you have that archaeological site map anywhere
10 for the No. 3?

11 A. I do not have it presently with me. We can
12 provide that at a later date. I will say there were several
13 visits between our regulatory people and the surveyors and
14 the archeologists going out there trying to pick -- we had
15 picked an alternate site before this one, and that was not
16 acceptable, so we have tried to find some alternates in that
17 40 acres, and this is the one ultimately that they
18 recommended that they would approve. As far as boundaries,
19 I will have to -- you know, we can provide that, if you
20 need, at a later point.

21 Q. That green dot on Exhibit 2 represents the
22 orthodox location on the No. 4?

23 A. No. The green dot represents the orthodox in the
24 center of that quarter-quarter. The red should be the one
25 farthest northwest, and that's the unorthodox that's being

1 applied for today on the No. 4, being the western location.

2 Q. Okay.

3 A. Are you talking about the No. 3?

4 Q. No. 3, right.

5 A. I'm sorry. Again, the green -- we have moved
6 south. The green was the original orthodox. And, again,
7 the red moving south in that case represents the unorthodox
8 that we're applying for.

9 Q. The No. 3 location, you are not really
10 encroaching on anyone, but the south 40 -- the 40 acres,
11 that's included in the proration unit, that's the only
12 acreage you are encroaching on?

13 A. That is correct. And, again, because of the
14 field rules setting up requirements to be in the center of
15 those quarter-quarters, and then within 150 foot of that,
16 it's pushed us, you know, we're out of that little window,
17 but you're correct.

18 Q. The other location, you're encroaching on the
19 W 1/2 of that SW 1/4?

20 A. Yes.

21 Q. And that is owned by Enron?

22 A. That is correct.

23 Q. Is that a common lease in that?

24 A. Yes, it is.

25 EXAMINER CATANACH: That's all I have of the

1 witness, Mr. Carr.

2 MR. CARR: At this time we call Mr. Cate.

3 RANDALL CATE,

4 the witness herein, after having been first duly sworn
5 upon his oath, was examined and testified as follows:

6 EXAMINATION

7 BY MR. CARR:

8 Q. Would you state your name for the record?

9 A. It's Randall Cate, C-A-T-E.

10 Q. Where you do you reside?

11 A. Reside in Midland, Texas.

12 Q. By whom are you employed?

13 A. Enron Oil & Gas Company.

14 Q. What is your current position with Enron?

15 A. I'm project reservoir engineer.

16 Q. Have you previously testified before this
17 division?

18 A. Yes, I have.

19 Q. At the time of that testimony were your
20 credentials as a petroleum engineer accepted and made a
21 matter of record?

22 A. Yes, they were.

23 Q. Are you familiar with the applications filed on
24 behalf of Enron in each of these cases?

25 A. Yes, I am.

1 MR. CARR: Are the witness's qualifications
2 acceptable?

3 EXAMINER CATANACH: They are.

4 Q. (BY MR. CARR) Mr. Cate, you've been before this
5 division in other cases involving unorthodox locations in
6 this particular pool, have you not?

7 A. Yes, I have.

8 Q. How many wells has Enron drilled in this area?

9 A. We have drilled 21 wells so far in this Red Hills
10 (Bone Spring) Field. Currently one is drilling and we have
11 got two that are waiting on completion.

12 Q. You were actually the engineering witness who
13 testified in the hearing when the special pool rules were
14 adopted for the pool, including 80-acre spacing?

15 A. Yes, I was.

16 Q. And in your experience, for these 21 wells, does
17 80-acre spacing continue to, in your opinion, be an
18 appropriate spacing pattern for the Red Hills (Bone Spring)
19 Pool?

20 A. Yes, it is.

21 Q. Let's go to Exhibit No. 3. Could you identify
22 that for the Examiner, and then review what this exhibit
23 shows.

24 A. Exhibit No. 3 is the net pay of what we call the
25 Third Bone Spring "A" Sand. The red numbers being the

1 thickness -- on the left number is the thickness of net
2 porous sand, as we have defined by a density porosity cutoff
3 of 14 percent. The right red number being the just gross
4 net sand within our depicted "A" sand interval. And the
5 resulting thickness interpretation of the "A" sand within
6 the Red Hills (Bone Spring) Field.

7 Q. Now, this exhibit is only applicable to the No. 3
8 location; is that not correct?

9 A. That is correct. We do not believe that the "A"
10 sand will be found at the No. 4 location.

11 Q. What are the green arcs that appear on this
12 exhibit?

13 A. The green arcs on this exhibit, and the
14 subsequent exhibit to come, represent an 80-acre drainage
15 radius.

16 Q. And with the No. 3 well, what direction have you
17 already moved this well from a standard location?

18 A. We have moved it south from a standard location,
19 which is closer into the drainage radius of the Hallwood 12,
20 No. 8, which is approximately half a mile due south in
21 Section 12.

22 Q. If you were to move this location to the other
23 remaining standard location in the SW of the SE of Section
24 1, what impact would that have on Enron's plans to develop
25 the acreage?

1 A. To move this location to the standard or orthodox
2 location closest to the lease line would cause a loss of
3 unique reserves that would already be captured by the
4 Hallwood 12, No. 8.

5 Q. In your opinion would this result in an
6 inefficient development pattern in the Bone Spring "A" Sand?

7 A. Yes.

8 Q. Could it ultimately result in reserves being left
9 in the ground?

10 A. Yes, that's right.

11 Q. Is there anything else you would like to show
12 with Exhibit No. 3?

13 A. No.

14 Q. Let's go to Exhibit No. 4, the Porosity Isopach
15 on the Third Bone Spring "B" Sand, and review this for
16 Mr. Catanach.

17 A. The Third Bone Spring "B" Sand is the upper
18 interval within the Third Bone Spring package. The two
19 sands are only separated sometimes by shale, approximately
20 10 to 20 feet. Sometimes they're really even not separated;
21 they come together. But the "B" Sand, again, this depicts
22 the net sand thickness interpretation based on the log data
23 that we have and shows the anticipated net sand thicknesses
24 that would be encountered at the locations that we seek
25 approval for.

1 Q. Now, Mr. Cate, if you were to move the No. 3 to
2 the south, again, in this sand, again, you would be moving
3 toward the area that has already been drained by wells to
4 the south?

5 A. Yes. It would put us right on the cross-section
6 of the arcs of the drainage radius for the Hallwood No. 1
7 well -- Hallwood 1 -- excuse me -- No. 2 well, which is in
8 the SE corner of Section 1 here. And also in drainage
9 radius there of the Hallwood 12-8, that was discussed for
10 the "A" Sand, these wells, the 1 No. 2 is not yet completed,
11 but the anticipated drainage radius -- and that green arc
12 there does show the anticipated reserves that would be
13 recovered by that well. The 12 No. 8, the well down in
14 Section 12, it has just been completed in the last 30 days,
15 and the flow rates do indicate that it should have no
16 problem draining its 80 acres assigned.

17 So moving to the south would cause, in the "B"
18 Sand, it to share reserves that otherwise would have been
19 recovered by either the Hallwood 1 No. 2 or the Hallwood 12
20 No. 8.

21 Q. Mr. Cate, how many feet of sand do you anticipate
22 encountering in the proposed location for the No. 3 well?

23 A. Approximately 49 feet of sand between the "A" and
24 the "B."

25 Q. Is it possible to calculate the reserves that

1 would be lost if you had to move these wells to the
2 available standard locations?

3 A. Yes, I did calculate that, and I show that even
4 though we would gain approximately 24 feet of sand thickness
5 by moving to the south, that the unique reserves lost --
6 well, that would have been drained by the other two wells is
7 approximately 50 percent. So you would drill a location and
8 only recover 50 percent unique reserves, which calculates at
9 97.5 thousand barrels.

10 Going to the north location, you would encounter
11 49 feet of sands of which only 20 percent of the area in the
12 "B" Sand only would not be unique reserves. And that would
13 calculate to 112,000 barrels. So we would stand to lose
14 unique reserves of approximately 15,000 barrels of oil and
15 30 million cubic feet of gas.

16 Q. Is that in the 3 location, or both of them?

17 A. That's just for the No. 3 location.

18 Q. All right, let's look at the No. 4. There is a
19 standard location available north of the proposed unorthodox
20 location in the NE of the SW of 1; is there not?

21 A. Yes, there is.

22 Q. If you were required to move to that location,
23 what impact would that have on Enron's efforts to develop
24 this acreage?

25 A. As shown on the "B" Sand map here, that would put

1 us in approximately only 14 feet of net sands, versus 34
2 feet at the location that we're seeking approval for. The
3 difference would be virtually an uneconomic well,
4 approximately 36,000 barrels of oil at the orthodox location
5 to the north, and we can not drill economically for that
6 amount of oil.

7 Q. In your opinion will the approval of both of
8 these unorthodox locations result in the orderly development
9 of this field?

10 A. Yes. This provides for the proper distance
11 between wells on 80-acre spacing that we believe has been
12 proven the best development and the most efficient.

13 Q. In your opinion will approval of these
14 applications prevent the waste of hydrocarbons?

15 A. Yes.

16 Q. Will the approval of the applications otherwise
17 be in the best interest of conservation and the protection
18 of correlative rights?

19 A. Yes, it will.

20 Q. How soon would Enron hope to proceed with the
21 drilling of these wells?

22 A. We would ask for just as soon as possible, at the
23 commission's convenience. We had two rigs running out here
24 at one time. We had to release one due to permit delays
25 with the BLM for topographical reasons and archaeological

1 reasons, and so basically, as soon as we can get them, we
2 would be ready to drill them.

3 Q. Were Exhibits 3 and 4 either prepared by you or
4 have you reviewed them and can you testify as to their
5 accuracy?

6 A. Yes, I've worked very closely on these and under
7 my supervision.

8 MR. CARR: Mr. Catanach, at this time we move the
9 admission of Enron Exhibits 3 and 4.

10 EXAMINER CATANACH: Exhibits 3 and 4 will be
11 admitted as evidence.

12 MR. CARR: That concludes my direct examination
13 of Mr. Cate.

14 EXAMINATION

15 BY EXAMINER CATANACH:

16 Q. Mr. Cate, the No. 2 hasn't been completed yet?

17 A. Has not been completed. We just have logs on it,
18 and the pay counts are listed there.

19 Q. Do you know if that well will be completed in the
20 "A" and "B"?

21 A. No, there is no "A" sand on the previous exhibit.
22 It encountered zero "A" sand. So it will just be a "B"
23 producer.

24 Q. I see. Is the No. 8 producing?

25 A. No. 8 is producing. We completed it within the

1 last 30 days.

2 Q. And that is completed in the "A" and "B"?

3 A. It is completed in the "A" and "B," yes, sir.

4 Q. And the No. 10 well, it's not been drilled?

5 A. It has not been drilled. It's a location that
6 we're waiting to receive approval from the BLM.

7 Q. I'm not sure I got the figures that you
8 represented in moving. In the No. 3 location you're going
9 to lose some reserves by -- can you kind of repeat what your
10 testimony was as far as the unique reserves?

11 A. Okay. On the No. 3 well, it, moving to the south --
12 you mean where it's at or by moving it to a south orthodox
13 location?

14 Q. Let's see.

15 A. Where its at, it should encounter 49 feet of
16 sands, and encounter both "A" and "B" sands, and receive
17 approximately 125,000 barrels of area. But there is
18 approximately 20 percent area in the "B" sand alone that
19 would have been produced by the Hallwood 1, No. 2. So
20 that's -- I had to reduce that 125 by 10 percent for its
21 portion, and that's where I got the 112,000 barrels that it
22 will produce. So at this location it's a very economic
23 venture.

24 Moving to the south orthodox location puts the
25 well right on the drainage areas of the No. -- well, the two

1 wells for the "A" and "B" sands and would reduce the unique
2 reserves to be produced or that would not have been
3 recovered by the 12, No. 8 and the 1, No. 2, by
4 approximately 50 percent. So that's what I was showing.

5 EXAMINER CATANACH: All right. I have nothing
6 further, Mr. Carr.

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

9 EXAMINER CATANACH: There being nothing further,
10 Cases 11177 and 11182 will be taken under advisement.

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CERTIFICATE OF REPORTER

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


I, Diana S. Abeyta, Certified Shorthand Reporter
and Notary Public, HEREBY CERTIFY that I caused my notes to
be transcribed under my personal supervision, and that the
foregoing transcript is a true and accurate record of the
proceedings of said hearing.

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, January 24th, 1995.


DIANA S. ABEYTA
CCR No. 168

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 11177/1182
heard by me on January 5 1995.


_____, Examiner
Oil Conservation Division