

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

IN THE MATTER OF:)
APPLICATION OF YATES PETROLEUM CORPORATION)
FOR AN UNORTHODOX GAS WELL LOCATION, EDDY) CASE NO. 10203
COUNTY, NEW MEXICO)
_____)

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: Michael E. Stogner, Examiner

February 7, 1991

9:15 a.m.

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on February 7, 1991, at 9:15 a.m. at the Oil Conservation Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Susan G. Ptacek, a Certified Court Reporter No. 124, State of New Mexico.

FOR: OIL CONSERVATION BY: SUSAN G. PTACEK
DIVISION Certified Court Reporter
CCR No. 1224

I N D E X

February 7, 1991
 Examiner Hearing
 Case No. 10203

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A P P E A R A N C E S

FOR THE DIVISION:

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FOR THE YATES
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CORPORATION

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Attorneys at Law

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* * *

1 EXAMINER STOGNER: We will call the next case, No.
2 10203.

3 EXAMINER STOGNER: Application of the Yates Petroleum
4 Corporation for an unorthodox gas well location, Eddy
5 County, New Mexico.

6 EXAMINER STOGNER: I will call for appearances.

7 MR. CARROLL: Mr. Examiner, my name is Ernest Carroll
8 of the law firm Losee, Carson Haas & Carroll of Artesia,
9 New Mexico, and I am here representing the applicant, Yates
10 Petroleum Corporation.

11 EXAMINER STOGNER: Are there any other appearances in
12 this matter?

13 EXAMINER STOGNER: Will the witness please stand and
14 be sworn.

15 MR. CARROLL: Mr. Examiner, I have two witnesses.

16 EXAMINER STOGNER: Will both of them stand and be
17 sworn.

18 (Whereupon the witnesses were duly
19 sworn.)

20 KATHY PORTER,
21 the Witness herein, having been first duly sworn, was
22 examined and testified as follows:

23 DIRECT EXAMINATION

24 BY MR. CARROLL:

25 Q. Would you please state your name and occupation

1 for the record?

2 A. My name is Kathy Porter. I'm employed as a
3 landman by Yates Petroleum Corporation.

4 Q. Miss Porter, have you previously testified as
5 petroleum landman before the OCD?

6 A. Yes, I have.

7 Q. Have you had your credentials accepted by the
8 commission as a petroleum landman?

9 A. That's correct.

10 Q. Are you familiar with the application of Case
11 No. 10203 that is now pending before the examiner?

12 A. I am.

13 MR. CARROLL: I would tender Miss Porter as an expert
14 in the field of petroleum landman to testify in this
15 matter.

16 EXAMINER STOGNER: Miss Porter is so qualified.

17 Miss Porter, you're not any kin to the previous
18 or past director of this commission, are you?

19 THE WITNESS: No, sir.

20 Q. (By Mr. Carroll) Miss Porter, would you briefly
21 state what the purpose of this application is?

22 A. In case 10203 Yates Petroleum Corporation is
23 seeking approval of an unorthodox gas well, the Winston AII
24 No. 1, which is located 1980 from the north line, 660 from
25 the west line of Section 14, Township 19 South, Range 24

1 East, Eddy County, New Mexico, for the Pennsylvanian and
2 Morrow formations.

3 Q. You prepared an exhibit, Exhibit 1, for today's
4 hearing?

5 A. Yes, that's correct. Exhibit 1 is the land plat
6 of this area that contains this well. The north half
7 proration unit is outlined in red with the well location
8 shown as the red dot.

9 Q. All right. Now, you have -- of this coloration
10 on this map there's solid yellow areas and then there are
11 some that are outlined in yellow. Would you please
12 describe for the examiner what the purpose of those two
13 different colorations are?

14 A. Yes, this is to designate the acreage that is
15 immediately offsetting this unit and proration unit to show
16 that Yates Petroleum Corporation owns leasehold or operates
17 all of the offset leases.

18 Q. Now the solid acreage is 100 percent owned by
19 Yates Petroleum?

20 A. That's correct.

21 Q. And then the outline is acreage that Yates
22 operates?

23 A. That we operate, correct.

24 Q. And so there are no offsetting -- there is no
25 offsetting acreage with respect to this application that is

1 not controlled by Yates Petroleum; is that correct?

2 A. That's correct. There were no offset operators
3 that had to be notified concerning our application.

4 Q. So no notices were sent out?

5 A. That's correct.

6 MR. CARROLL: I would have no further questions of
7 this particular witness, Mr. Examiner.

8 EXAMINATION

9 BY EXAMINER STOGNER:

10 Q. The north half, when I look at your Exhibit
11 No. 1, appears to be two leases, the northeast quarter and
12 the northwest quarter. Is that correct or is that a single
13 lease?

14 A. No, sir. There are actually numerous leases and
15 that's how it's designated. There's approximately 15
16 leases in the northeast quarter, and 15 to 20 in the
17 northwest quarter. They are all fee leases.

18 Q. Definitely not common.

19 A. No, sir.

20 Q. Is there a communitization agreement in
21 existence on the well, I believe that is Yates Petroleum
22 Corporation -- is that Routh, "NU," No. 2?

23 A. Routh, "NU," No. 2. Yes, sir, its counterpart
24 actually designated pool unit because they are all fee.

25 Q. That is a north half dedication?

1 A. Yes, it is.

2 Q. And communitization?

3 A. Yes.

4 Q. Was that done through forced pooling or was that
5 a voluntary agreement?

6 A. No, it was voluntary.

7 Q. Getting all them people together. In looking at
8 the south portion and I'm -- I can't see if there is a
9 break of the leases in the south half with the ones in the
10 north half. Are those separate leases?

11 A. They're separate.

12 Q. In fact, there shows to be some federal in
13 there; is that right?

14 A. To the south, yes, sir.

15 Q. Are you familiar with the Allison "CQ" well
16 No. 8?

17 A. Yes, sir.

18 Q. That has south half dedication, does it not?

19 A. Yes, it does.

20 Q. Also communitized?

21 A. Yes, with the fee lease that's in the south
22 half.

23 EXAMINER STOGNER: I have no further questions of this
24 witness at this time, Mr. Carroll. I may at a later point.

25 EXAMINER STOGNER: Thank you, Mr. Stogner. We next

1 call Denise Fly.

2 DENISE FLY,
3 the Witness herein, having been first duly sworn, was
4 examined and testified as follows:

5 DIRECT EXAMINATION

6 BY MR. CARROLL:

7 Q. Would you please state your name and occupation
8 for the record?

9 A. My name is Denise Fly and I'm a geologist with
10 Yates Petroleum Corporation.

11 Q. Miss Fly, have you previously testified as a
12 geologist before the OCD?

13 A. Yes, I have.

14 Q. Your credentials were accepted at that time as a
15 petroleum geologist?

16 A. Yes, they were.

17 Q. You are familiar with the application that is
18 now pending before the examiner, are you not?

19 A. Yes.

20 MR. CARROLL: I would tender Miss Fly as an expert in
21 the field of petroleum geology for purposes of this
22 hearing.

23 EXAMINER STOGNER: Miss Fly is so qualified.

24 Q. (By Mr. Carroll) Miss Fly, would you further
25 elaborate what the situation is with respect to the the

1 Winston AII No. 1 well, and specifically describe for the
2 examiner how this well came to be drilled, what happened
3 after it was drilled, and what the plans of Yates Petroleum
4 are with respect to the north half of this Section 14?

5 A. Okay. Yates Petroleum drilled the Winston AII
6 No. 1 located at 1980 feet from the north line and 660 feet
7 feet from the west line of Section 14, Township 19 South,
8 Range 24 East in Eddy County. The north half of the
9 section would be dedicated to the well. The location was
10 originally picked as a standard 40-acre location based on
11 conditions believed to be prevailing in the Devonian
12 formation. No potential Devonian production was found in
13 the drilling of this well; however, uphole potential for
14 gas production was found in the Morrow clastics and the
15 Cisco or Permo-Penn formations. The old standard location
16 for a Devonian well now becomes a nonstandard location for
17 gas production from the Morrow and/or Permo-Penn. It is
18 for this unorthodox gas well location that we are seeking
19 approval.

20 There is another matter, kind of directly
21 impinging upon this case, and that is that there is a
22 depleted gas-producing well, the Yates Routh "NU" No. 2 in
23 unit B of this same north half of Section 14. If Yates is
24 granted approval for this application, we will terminate
25 the production of the Routh "NU" No. 2 and produce the

1 Winston "AII" No. 1. The Routh "NU" No. 2 will then be
2 converted to a water disposal well to take water from the
3 nearby prolifically water-producing Dagger Draw field.

4 Q. Miss Fly, you have also prepared a number of
5 exhibits for presentation today, have you not?

6 A. Yes, sir.

7 Q. Would you please turn first to your Exhibit
8 No. 2, and if you would explain what that exhibit is and
9 how it relates to this specific case?

10 A. Exhibit No. 2 is a copy of the OCD application
11 for permit to drill dated October 12, 1990. It's noted in
12 boxes 10 and 11 the proposed depth of 10,100 feet and the
13 formation at that depth being the Devonian. Page 2 of this
14 exhibit is a copy of the accompanying OCD location plat
15 showing the objective formation as Devonian and dedicated
16 40 -- dedicated acreage is 40 acres.

17 Q. Now, Miss Fly, this well was actually drilled to
18 the proposed depth, was it not?

19 A. Yes, it was.

20 Q. And the Devonian was tested and found to be
21 unproductive for hydrocarbons?

22 A. Yes, it was drilled through. We did not do
23 drill-stem tests or anything of that sort, but we did drill
24 through it.

25 Q. All right. Would you next turn to your Exhibit

1 No. 3 and explain what that exhibit is and how it relates
2 to the Yates application at today's hearing?

3 A. Exhibit 3 is the first of two exhibits submitted
4 to assist in showing why the Winston "AII" No. 1 was set
5 up to be drilled to the Devonian. This exhibit is a
6 structure map contoured on the top of the Devonian.
7 Circled well spots are Devonian penetrations with the
8 subsea datum of the Devonian being noted below the spot.
9 The contour interval is 100 feet. It may be noted that
10 there are only 13 Devonian penetrations in the 156 sections
11 or four and one third townships shown on this map. This is
12 an overall Devonian penetration density of one Devonian
13 penetration per 12 sections. There are, however, three
14 closely grouped Devonian penetrations in Section 11, 14,
15 and 23 because Yates has been drilling Devonian wells on a
16 Devonian structural anomaly in this area.

17 This is a before the Winston map. An after the
18 Winston map will be shown later. This map shows that
19 before the Winston "AII" No. 1 was drilled it was projected
20 that the location would encounter the Devonian higher than
21 the other three wells with a subsea datum of less than
22 minus 5800 and with up to perhaps 100 feet of closure. As
23 a latter exhibit will show the well did end up higher than
24 the other three wells but not as high as projected and with
25 no-shows of oil or gas in the Devonian.

1 Q. All right, Miss Fly, would you next turn to your
2 Exhibit No. 4 and likewise explain to the examiner what
3 that exhibit is and how it relates to this application.

4 A. Okay. Exhibit 4 is a stratigraphic cross
5 section A to A prime going from south of the Winston
6 location, through the Winston location, north of the
7 location and thence to the northeast of the location. This
8 stratigraphic cross section shows things as they were
9 projected when the Winston was drilled. The cross section
10 shows the correlations of the Mississippian limestone,
11 Woodford shale and the Devonian.

12 Another drilling objective whose base is nearly
13 100 feet above the Devonian is the thick porous and
14 permeable interval found in the Yates Davis "NC" No. 2 in
15 Section 11, three-quarters of a mile north of the Winston
16 location. There is 192 feet of good to excellent porosity
17 and permeability in Mississippian limestone of the Davis
18 No. 2. Although Davis No. 2 well yielded something over 24
19 million cubic feet of gas from this Mississippian zone,
20 which may end up being a mechanical problem, the zone was
21 so thick, over 17 stories high, that it is constituted as a
22 viable objective very near the Devonian and, thus, aided in
23 making the decision to drill a Devonian well. However, the
24 Winston did not encounter any Mississippian porosity zone
25 when drilled.

1 Q. Miss Fly, if you would next turn to your Exhibit
2 No. 6 -- we're taking 6 out of order. We will come back to
3 Exhibit 5 next. Would you explain what that exhibit is and
4 how it relates to this hearing.

5 A. This one is also two pages. Page 1 is a copy of
6 the mudlog covering the top part of the Devonian, and it
7 may be noted that there was no formation gas kick,
8 fluorescence, cut fluorescence, stain or odor from the
9 Devonian dolomite reservoir. The gas increase spike logged
10 at approximately 9511 feet of depth is trip gas and not gas
11 from the Devonian. When we got no-shows from the Devonian
12 a decision was made to drill beyond the original proposed
13 depth of 10,100 in the Devonian to 10,850 in the basement
14 granite. This was in order to prepare for a future water
15 disposal well, again, to take the water from nearby
16 prolifically water-productive zone of the Dagger Draw field
17 after all economically producible hydrocarbons have been
18 depleted.

19 Page 2 of this exhibit is an accompanying
20 porosity log from the Winston showing the tops that have
21 been picked. The porosity log tops came in 11 feet
22 shallower than the mudlog picks. One may note that the
23 principle dolomite reservoir came in 40 feet below a tight
24 limestone caprock.

25 Q. If you would next turn back to -- move back to

1 your Exhibit No. 5 and if you would explain what that
2 exhibit is and how it relates to this pending application.

3 A. All right. Exhibit No. 5 is the after the
4 Winston Devonian structure. Although the Winston came in
5 structurally higher than any other well on the anomaly, it
6 was not as high as projected before drilling and not enough
7 to produce hydrocarbons.

8 Q. Would you next turn to your Exhibit No. 7 and
9 explain what that exhibit is and how it relates to this
10 application.

11 A. Exhibit No. 7 is a copy of the Morrow segment
12 of the Winston porosity log. The lower sand perfs from
13 8765 to 69 feet proved to be depleted and were squeezed.
14 The Morrow lime perfs from 8658 to 70 and the Morrow
15 clastics perfs from 8695 to 8710 together tested early on
16 at a stabilized rate of 850 MCF gas per day with 500 pound
17 flowing tubing pressure.

18 Q. Would you next turn to your Exhibit No. 8 and
19 explain what that exhibit consists of and how it applies.

20 A. Exhibit 8 is a copy of the Permo-Penn segment of
21 the Winston porosity log. Intended future perfs are marked
22 on the logs opposite four porous zones. Comparing this log
23 with other Permo-Penn producers in the area and something
24 of their history, we expect this zone to produce at rates
25 in the hundreds of MCF and to ultimately produce 300 to 500

1 million cubic feet of gas.

2 Q. All right, Miss Fly. Just recapping then, this
3 well was originally, Winston "AII" No. 1, was originally
4 programmed to be a Devonian test and it was actually
5 drilled to the basement rock but through the Devonian; is
6 that correct?

7 A. That is correct.

8 Q. And no production was found at the Devonian
9 levels?

10 A. No, sir.

11 Q. That is why Yates now has had to come back to
12 the commission and ask for approval of this unorthodox
13 location to be able to produce this well as a gas well; is
14 that correct?

15 A. That is correct.

16 Q. And with respect to the issue of the prevention
17 of waste, in your expert opinion, that the granting of this
18 application will in fact prevent waste?

19 A. Yes.

20 Q. And with the issue of the protection of
21 correlative rights, it's the interest of the commission in
22 granting this application, would that also promote the
23 protection of correlative rights in this north half of
24 Section 14?

25 A. Yes.

1 MR. CARROLL: Mr. Examiner, I have no further
2 questions to ask of this witness.

3 EXAMINATION

4 BY EXAMINER STOGNER:

5 Q. Miss Fly, when I look at that -- your Exhibit 4,
6 the large one, are there plans to -- has there been test to
7 the Mississippian, in that Mississippian from the existing
8 well at this point?

9 A. We did not pick up any porosity in the
10 Mississippian in our Winston well. We were hoping to pick
11 up the porosity that we picked up in the northern well
12 there, but it just was not found. It looks very similar to
13 the well there on your left.

14 Q. Allison or the Davis?

15 A. The Allison.

16 Q. Okay. So that is not a viable completion
17 horizon at this point?

18 A. No, it was obvious the bioherm did not stretch
19 down to this point.

20 Q. Educate me here. What is the origination of
21 this Mississippian bioherm? Can you give me a little
22 rundown on that?

23 A. The term "bioherm" is just a carbonate buildup
24 of some type of mass -- usually of a algae or coral but
25 later is a good trapping mechanism for oil or gas. It's

1 very porous and then the surrounding limestone is of a
2 different sedimentation. It would be like a coral reef
3 being buried under carbonates.

4 Q. This is very localized it appears?

5 A. Yes, kind of like a patch reef of some sort.

6 Q. So it wasn't some feature that has been eroded
7 away of any type?

8 A. No, it's just a mound, a buildup.

9 Q. Out there by itself. Okay.

10 EXAMINER STOGNER: I have no other questions of
11 Miss Fly. However, I would like to take administrative
12 notice of the two division memorandums that refer to having
13 two wells on an unprorated gas pool which Miss Fly has
14 covered in her testimony. That the Routh well will be
15 plugged and abandoned and will not be produced
16 simultaneously.

17 I do have a question for your other witness.
18 You can stay there.

19 KATHY PORTER,
20 the Witness herein, having been previously duly sworn and
21 having testified, was examined and testified further as
22 follows:

23 FURTHER EXAMINATION

24 BY EXAMINER STOGNER:

25 Q. In looking at the south half, all but 40 acres

1 is federal; is that correct?

2 A. That's correct. There is one 40-acre lease in
3 the south half of the section.

4 Q. And then the north half is made up of fee acres?

5 A. Number of fee leases, that's correct.

6 Q. What has your past experience been with the BLM
7 in a situation such as this where you have some fee
8 acreage, in this case south half only being 40 acres of the
9 320, and having a standup 320, where half of it would be
10 federal and half of it would be fee? What has been your
11 experience with the BLM in leasing or getting a proration
12 unit, or I should say a communitization agreement from
13 them?

14 A. Well, except in a few very rare cases, most of
15 the time they prefer their proration units to include most
16 of their lands. You will notice that this Allison "CQ" 8
17 was put on the south half to give the government most of
18 their acreage, and this is an older well. They've had
19 their production for a long time.

20 Q. It's interesting to note, both of these wells
21 have the south half designation in the proposed well that
22 we're here today for. If it was two standup 320s, they
23 both would be standard, would they not? Did I look at that
24 wrong?

25 MR. CARROLL: I think you would still be a little too

1 far to the west.

2 A. It's still 660 from the west line, the Winston
3 well.

4 Q. (By Examiner Stogner) But how far from the
5 north line?

6 A. 1980.

7 Q. If that was a west half dedication that would be
8 standard; correct, 1980 from the end line, 660 from the
9 sideline?

10 A. Well, I guess it would.

11 Q. And the same with the -- the one that has the
12 south half dedication?

13 A. South half is the Allison 8.

14 Q. That is located 1980 from the south?

15 A. And 660 from the east.

16 Q. So if these were two standups --

17 A. Like I say, except in a few cases, we found the
18 BLM prefers, you know, that they have proration units that
19 include -- when you do have a legal like when -- like when
20 we drilled the Allison 8, we did have a legal location, one
21 that you could get approved to drill and include on the
22 federal lands. They do not like us to chop up and exclude
23 them.

24 Q. This is a good example?

25 A. Yes, it really is.

1 EXAMINER STOGNER: I have no other questions of either
2 one of these witnesses.

3 MR. CARROLL: Mr. Examiner, I would move the admission
4 of Yates Petroleum Exhibits 1 through 8 at this time.

5 EXAMINER STOGNER: Exhibits 1 through 8 will be
6 admitted at this time.

7 (Yates Petroleum Exhibits 1 through 8
8 were admitted in evidence.)

9 MR. CARROLL: We have no further testimony.

10 EXAMINER STOGNER: Does anybody else have anything
11 further in this case? Case 10203 will be taken under
12 advisement.

13 (Whereupon, the hearing was concluded at the
14 approximate hour of 9:35 a.m.)

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


4 REPORTER'S CERTIFICATE

5 I, Susan G. Ptacek, a Certified Court Reporter and
6 Notary Public, do HEREBY CERTIFY that I stenographically
7 reported the proceedings before the Oil Conservation
8 Division, and that the foregoing is a true, complete and
9 accurate transcript of the proceedings of said hearing as
10 appears from my stenographic notes so taken and transcribed
11 under my personal supervision.

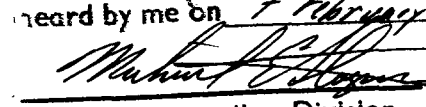
12 I FURTHER CERTIFY that I am not related to nor
13 employed by any of the parties hereto, and have no interest
14 in the outcome thereof.

15 DATED at Santa Fe, New Mexico, this 11th day of March,
16 1991.

17
18
19 My Commission Expires:
December 10, 1993


SUSAN G. PTACEK
Certified Court Reporter
Notary Public

21 I do hereby certify that the foregoing is
22 a complete record of the proceedings in
23 the Examiner hearing of Case No. 10203,
heard by me on 7 February 1991.


Examiner
Oil Conservation Division