

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

CASE 9910

EXAMINER HEARING

IN THE MATTER OF:

Application of Harvey E. Yates Company for an
Unorthodox Oil Well Location, Lea County, New
Mexico

TRANSCRIPT OF PROCEEDINGS

BEFORE: MICHAEL E. STOGNER, EXAMINER

STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO

April 18, 1990

ORIGINAL

A P P E A R A N C E S

FOR THE APPLICANT:

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E X H I B I T S

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* * *

1 WHEREUPON, the following proceedings were had
2 at 9:13 a.m.:

3 EXAMINER STOGNER: At this time we'll call
4 the next case, Number 9910, which is the Application of
5 Harvey E. Yates Company for an unorthodox oil well
6 location, Lea County, New Mexico.

7 At this time I'll call for appearances.

8 MR. CARR: May it please the Examiner, my
9 name is William F. Carr with the law firm Campbell and
10 Black, P.A., of Santa Fe. We represent Harvey E. Yates
11 Company, and I have two witnesses.

12 EXAMINER STOGNER: Are there any other
13 appearances?

14 Will both witnesses stand to be sworn at this
15 time?

16 (Thereupon, the witnesses were sworn.)

17 EXAMINER STOGNER: Mr. Carr?

18 MR. CARR: At this time I'd call Mr. Bell.

19 ROBERT H. BELL,
20 the witness herein, after having been first duly sworn
21 upon his oath, was examined and testified as follows:

22 EXAMINATION

23 BY MR. CARR:

24 Q. Will you state your full name and place of
25 residence?

1 A. Robert H. Bell, Roswell, New Mexico.

2 Q. By whom are you employed and in what
3 capacity?

4 A. With the Harvey E. Yates Company as Land
5 Manager.

6 Q. Have you previously testified before the Oil
7 Conservation Division and had your credentials as a
8 landman accepted and made a matter of record?

9 A. Yes, I have. And yes, they were.

10 Q. Are you familiar with the Application filed
11 in this case on behalf of Harvey E. Yates Company?

12 A. Yes, sir.

13 Q. Are you familiar with the proposed well?

14 A. Yes, sir.

15 MR. CARR: Are the witness's qualifications
16 acceptable?

17 EXAMINER STOGNER: Mr. Bell is so qualified.

18 Q. (By Mr. Carr) Mr. Bell, would you briefly
19 state what Harvey E. Yates Company seeks with this
20 Application?

21 A. Harvey Yates Company seeks approval of the
22 unorthodox location in the Lea Bone Springs Pool for a
23 well to be drilled 1650 feet from the south line and
24 2310 feet from the west line of Section 24, Township 19
25 South, Range 34 East, Lea County, New Mexico.

1 Q. Have you prepared certain exhibits for
2 presentation in this hearing?

3 A. Yes, sir.

4 Q. Would you refer to what has been marked for
5 identification as Harvey E. Yates Exhibit Number 1,
6 identify that and review the information on this
7 Exhibit for Mr. Stogner?

8 A. Exhibit Number 1 is an ownership plat showing
9 our proposed well location and the 80-acre proration
10 unit dedicated to this well. The Exxon -- The plat is
11 the center of the quarter-quarter section.

12 Q. And the pool is provided for wells to be
13 drilled within 150 feet of the center of the quarter-
14 quarter section?

15 A. That's correct.

16 Q. Would you refer now to what has been marked
17 as Exhibit Number 2 and identify that, please?

18 A. Exhibit Number 2 is an outline of the Lea
19 Bone Springs Pool. Any well drilled must be located
20 within 150 feet of the center of each quarter-quarter
21 section, with 80-acre spacing per each well.

22 Q. And if you look at this plat, the proposed
23 well is indicated by an arrow in Section 24 on the
24 northeast portion of the plat?

25 A. That's correct. Also shows to be a -- To the

1 east of the center of the quarter-quarter section.

2 Q. And it is within a mile of the pool boundary?

3 A. That's correct, so it would be governed by
4 the Lea Bone Springs Pool.

5 Q. Mr. Bell, what is the relationship of
6 Armstrong Energy to this Application?

7 A. Armstrong Energy either acquired the leases
8 through farmout or leasehold, and they have requested
9 that Heyco be the operator of this well.

10 Q. All right. Let's go now to Exhibit Number 3.
11 Is this an affidavit that confirms that notice of this
12 hearing has been provided as required by the Rules of
13 the Oil Conservation Division?

14 A. That's correct.

15 Q. And you're only moving this well toward
16 Mobile; is that right?

17 A. Yes, sir. Towards Mobile and Armstrong.

18 Q. All right. Let's go now to what has been
19 marked as Heyco, or Harvey E. Yates, Exhibit Number 4.
20 Could you identify that and then review that for the
21 Examiner?

22 A. Exhibit Number 4, three letters, one for
23 Mobile Corporation agreeing to Harvey Yates Company
24 being the operator, and one letter from Armstrong, and
25 one for Mobile waiving any objection to our unorthodox

1 location.

2 Q. When did Harvey E. Yates Company acquire this
3 property interest, or when was this acquired? Do you
4 know?

5 A. I believe Armstrong acquired the interests in
6 February, 1990.

7 Q. Will Harvey E. Yates Company also call a
8 geological witness to explain the reasons for this
9 unorthodox location?

10 A. Yes, sir.

11 Q. Were Exhibits 1 through 4 either compiled or
12 prepared by you or compiled under your direction?

13 A. Yes, sir, they were.

14 MR. CARR: Mr. Stogner, at this time we would
15 move the admission of Harvey E. Yates Exhibits 1
16 through 4.

17 EXAMINER STOGNER: Exhibits 1 through 4 will
18 be admitted into evidence.

19 MR. CARR: That concludes my direct
20 examination of Mr. Bell.

21 EXAMINATION

22 BY EXAMINER STOGNER:

23 Q. Mr. Bell, when I look at Exhibit Number 2 --
24 Help straighten me out here -- in Section 24 I show
25 that the north half as being a Mobile lease and then

1 the south half as an Armstrong lease. Or does Mobile
2 have some interest in that south half with Armstrong?

3 A. Yes, sir, they're segregated rights to the
4 base of the San Andres. I believe Armstrong has a
5 hundred percent of the shallow rights, with Mobile
6 having the deeper rights.

7 I'm not sure what the segregation is in
8 footage, but it's the base of the San Andres.

9 Q. Now, does Mobile have a hundred percent --
10 obviously not -- of the deeper rights, or what is the
11 percentage cutoff or makeup of the deep stuff between
12 Mobile and Armstrong?

13 A. I think, if I remember correctly, that they
14 do have a hundred percent, and it was a farmout to
15 Armstrong.

16 EXAMINER STOGNER: I see. I have no other
17 questions of Mr. Bell. You may be excused.

18 MR. CARR: At this time we'll call Mr.
19 Boling.

20 ROBERT MICHAEL BOLING,
21 the witness herein, after having been first duly sworn
22 upon his oath, was examined and testified as follows:

23 EXAMINATION

24 BY MR. CARR:

25 Q. Would you state your full name and place of

1 residence?

2 A. Robert Michael Boling, Roswell, New Mexico.

3 Q. By whom are you employed?

4 A. Robert E. Boling, Exploration Consultant.

5 Q. And what is the nature of that business?

6 Providing consulting services to the oil and gas

7 industry?

8 A. Yes, sir.

9 Q. Have you previously testified before the New
10 Mexico Oil Conservation Division?

11 A. I have.

12 Q. Were your credentials made a matter of record
13 and accepted at that time?

14 A. They were.

15 Q. And how were you qualified? As a petroleum
16 geologist?

17 A. Yes, sir.

18 Q. Are you familiar with the Application filed
19 in this case on behalf of Harvey E. Yates Company?

20 A. I am.

21 Q. And are you familiar with the proposed well?

22 A. Yes.

23 Q. Have you performed a study of the -- a
24 geological study of the surrounding area at the request
25 of Heyco?

1 A. At the request of Armstrong, I did, yes.

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

4 EXAMINER STOGNER: They are.

5 Q. (By Mr. Carr) Would you identify what has
6 been marked as Heyco Exhibit Number 5 and then review
7 the information on this exhibit for the Examiner?

8 A. Exhibit Number 5 is a structure map on the
9 top of the Scharb Bone Springs Carbonate in the area
10 including Section 24 in Township 19 South, 34 East and
11 the surrounding area.

12 It shows -- It infers a lower leaf structure
13 in -- striking northeast-southwest across the south
14 half of Section 24. The circle that is on the flank of
15 the structure is our proposed well location.

16 As you can see by the map, the well location
17 is down the flank from the crest of the structure
18 which, based on observations from 18 producing wells in
19 the Scharb field proper which is three miles to the
20 northeast of this proposed location, tends to indicate
21 that the most prolific wells in that field, while
22 structurally high, are down the flank of the structure,
23 not at the crest of the structure or on the back side
24 of the structure.

25 To try and simulate the same type of analogy

1 here, we have chosen this location which is unorthodox
2 to try to preserve the downflank position on this
3 inferred structure, hopefully to encounter a thicker,
4 more porous and permeable reservoir.

5 Q. In your opinion, is this proposed unorthodox
6 location necessary if you are to most efficiently
7 produce the reserves under the acreage dedicated to the
8 well?

9 A. Yes, sir, I believe so.

10 Q. Was this structure map prepared from well-
11 control information?

12 A. Yes, sir, it was.

13 Q. Was there any seismic interpretation
14 involved?

15 A. No, sir, there was not.

16 Q. Let's go now to Harvey E. Yates Exhibit
17 Number 6, and I'd ask you to identify that, please.

18 A. That map is an isopach map of the net
19 apparent porosity greater than five percent in the
20 potential reservoir.

21 Again, to insure both maximum thickness of --
22 anticipated thickness of potential reservoir rock, and
23 maintaining the important downdip structural position,
24 this map shows that we can maintain a -- we will
25 achieve an anticipated 25 feet of net porosity greater

1 than five percent, which is within the parameters
2 observed at Scharb field for potential prolific
3 reservoir.

4 Q. In your opinion, is this the best location to
5 produce the reserves under this tract?

6 A. Yes, sir, it is.

7 Q. Is this location necessary to efficiently
8 produce the reserves that are under the acreage
9 dedicated to the well?

10 A. Yes, sir.

11 Q. In your opinion, will approval of this
12 unorthodox location be in the best interest of
13 conservation, the prevention of waste and the
14 protection of correlative rights?

15 A. Yes, sir.

16 Q. Were Exhibits 6 and 7 -- 5 and 6 -- prepared
17 by you?

18 A. Yes, sir.

19 MR. CARR: At this time, Mr. Stogner, we
20 would move the admission of Harvey E. Yates Exhibits 5
21 and 6.

22 EXAMINER STOGNER: Exhibits 5 and 6 will be
23 admitted into evidence.

24 MR. CARR: That concludes my direct
25 examination of Mr. Boling.

EXAMINATION

BY EXAMINER STOGNER:

Q. Mr. Boling, on Exhibit 5 --

A. Yes, sir.

Q. Now, bear with me again here.

A. Okay.

Q. On the -- pretty much the center of your map, you show the dashed areas.

A. Yes, sir.

Q. Do you want to describe that structure again for me?

A. Okay, that is a low-relief structure. These are ten-foot contour intervals, and the well control is marked with elevations.

Those structural contours are inferred in there, based on the regional dip observed around this area and throughout the township that I've mapped. So what the dashed lines are inferring is that there is a structure in the south half of 24, but it is an extremely low-relief structure, again similar to the analogy at Scharb Field to the northeast.

I don't have well control in the center of Section 24 to absolutely be able to determine what the dip is across that structure. Therefore, I've inferred by the dashed lines what the contour interval I expect

1 to be is.

2 Q. And that is a carbonate structure?

3 A. Yes, sir. It's a carbonate debris flow.

4 Q. And this was mapped on top of that carbonate;
5 is that correct?

6 A. Yes, sir.

7 Q. Now, when I look at Exhibit 1 -- I'm sure
8 you're familiar with that one.

9 A. Yes, sir.

10 Q. That is the Midland map, lease map.

11 A. Yes.

12 Q. There is a well in the southwest of the
13 southwest quarter of Section 24.

14 A. Yes, sir.

15 Q. Was that well -- Did that not penetrate this
16 particular zone?

17 A. No, that was a well that was drilled only to
18 the Queen TD at 5200 feet. This is anticipated at
19 10,500 feet.

20 Q. And a little bit to the south in Section
21 25 --

22 A. Yes, sir.

23 Q. -- now, in your map, Exhibit Number 5, you
24 have three wells as -- included in here?

25 A. Yes.

1 Q. But there shows to be a lot more.

2 A. Yes, sir.

3 Q. I assume that's the same thing?

4 A. Yeah. Those other wells -- There are eight
5 wells in Section 25 that are producing out of the Queen
6 Formation at 5200 feet.

7 Q. Now the well in Section 23 and which shows up
8 on your Exhibit Number 5, is that a dry hole?

9 A. Yes, sir. The potential reservoir was
10 drilled in that well. It was thin and tight. My
11 interpretation is that it's on the outer edge of the
12 potential reservoir.

13 Q. The well in the southeast quarter of the
14 northeast quarter of Section 24, is that presently
15 producing or is that also a dry hole?

16 A. It's also a dry hole. That was -- the
17 reservoir, potential reservoir, was penetrated in that
18 well also. Again, it was thin and tight.

19 Both of those wells, the one in 23 and the
20 one in 24 that you've described, define the outer edges
21 of the carbonate debris flow, which we anticipate will
22 be the reservoir.

23 Q. Who operates the well in the southwest
24 quarter of the southeast quarter?

25 A. Of 24?

1 Q. Yes.

2 A. Well marked C?

3 Q. Yes.

4 A. It's a San Andres producer that Armstrong
5 Energy operates.

6 Q. Did it ever produce from the --

7 A. No, sir, the well penetrated the potential
8 reservoir but it was below -- determined to be below
9 the oil-water contact and was completely water-filled
10 at that point.

11 Q. Mr. Boling, am I to understand you're moving
12 closer to some dry holes?

13 A. No, sir, you're to understand that we're
14 trying to move to the center of a carbonate debris
15 flow, and based on my observation at Scharb Field, from
16 the 18 producing wells up there, you can define the
17 potential -- the potential reservoir -- by the isopach
18 map, which is the other exhibit.

19 As you can see, Well C has 24 feet of
20 observed net porosity greater than five percent, which
21 is within the parameters defined by the producing wells
22 in Scharb Field as a potential reservoir.

23 Unfortunately, that well was structurally too
24 low. Twelve feet of that reservoir was -- of the 24
25 feet of net porosity greater than five percent -- was

1 definitely water-filled. The upper 12 feet appeared to
2 be in the oil-water column.

3 What we are attempting to do at this location
4 is move up the flank of the inferred structure, staying
5 in the thickest part of the reservoir and staying off
6 the crest of the structure.

7 Again, at Scharb Field and at Quail Bone
8 Springs Field, which is to the northwest of this
9 location, it is observed that as wells approach the
10 crest of the structure and move to the back side,
11 you're moving to finer-grained part of the debris flow,
12 it tends to be less dolomitic, tends to be muddy, more
13 limy. It is a poor reservoir.

14 So we are attempting to maximize both the
15 anticipated net porosity greater than five percent in
16 what I have observed to be the necessary downdip
17 structural position, off the crest of the structure,
18 that will hopefully produce the most prolific location
19 on the prospect.

20 EXAMINER STOGNER: Okay, I have no other
21 questions of Mr. Boling. Are there any other questions
22 of this witness?

23 MR. CARR: Nothing further of this witness.

24 EXAMINER STOGNER: You may be excused.

25 Mr. Carr, do you have anything further?

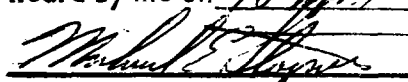
1 MR. CARR: That concludes our presentation.

2 EXAMINER STOGNER: Does anybody else have
3 anything further in Case Number 9910?

4 This case will be taken under advisement.

5 (Thereupon, these proceedings were concluded
6 at 9:30 a.m.)
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14

15 I do hereby certify that the foregoing is
16 a complete record of the proceedings in
17 the Examiner hearing of Case No. 9910,
heard by me on 18 April 1990.

18 , Examiner
19 Oil Conservation Division
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23
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25

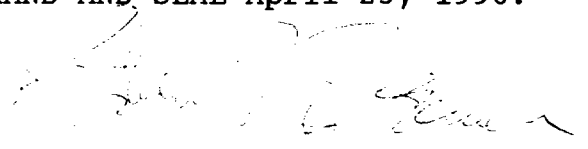
1 CERTIFICATE OF REPORTER

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

5
6 I, Steven T. Brenner, Certified Shorthand
7 Reporter and Notary Public, HEREBY CERTIFY that the
8 foregoing transcript of proceedings before the Oil
9 Conservation Division was reported by me; that I
10 transcribed my notes; and that the foregoing is a true
11 and accurate record of the 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 April 23, 1990.

17
18 
19 STEVEN T. BRENNER
20 CSR No. 106

21 My commission expires: October 14, 1990
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