

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

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OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY)
THE OIL CONSERVATION DIVISION FOR THE)
PURPOSE OF CONSIDERING:)
APPLICATION OF YATES PETROLEUM)
CORPORATION FOR APPROVAL OF A UNIT)
AGREEMENT, LEA COUNTY, NEW MEXICO)

CASE NO. 12,372

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MARK ASHLEY, Hearing Examiner

April 20th, 2000

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MARK ASHLEY, Hearing Examiner, on Thursday, April 20th, 2000, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

STEVEN T. BRENNER, CCR
(505) 989-9317

I N D E X

April 20th, 2000
Examiner Hearing
CASE NO. 12,372

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* * *

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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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 By: WILLIAM F. CARR

* * *

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1 WHEREUPON, the following proceedings were had at
2 11:41 a.m.:

3 EXAMINER ASHLEY: The Division calls Case 12,372.

4 MS. HEBERT: Application of Yates Petroleum
5 Corporation for approval of a unit agreement, Lea County,
6 New Mexico.

7 EXAMINER ASHLEY: Call for appearances.

8 MR. CARR: May it please the Examiner, my name is
9 William F. Carr with the Santa Fe law firm Campbell, Carr,
10 Berge and Sheridan. We represent Yates Petroleum
11 Corporation in this matter, and I have one witness.

12 EXAMINER ASHLEY: Additional appearances?

13 Will the witness please be sworn?

14 (Thereupon, the witness was sworn.)

15 MR. CARR: Initially, Mr. Examiner, I would like
16 to point out that as the unit was originally proposed, the
17 unit area was comprised of four sections of land in Lea
18 County, New Mexico. It is all state land. And the
19 interests are owned either by the Commissioner of Public
20 Lands or by Yates Petroleum Corporation and related Yates
21 entities.

22 In the approval process -- During the approval
23 process at the State Land Office, they have deleted from
24 the unit area the east half of Section 6. And the reason
25 for that is, our testimony will show back in the early

1 1950s, one well was drilled which penetrated the formations
2 that are the subject of this hearing, and there was an
3 east-half spacing unit dedicated to it at that time.

4 So we come before you with a unit that includes
5 the originally unit area, less that acreage.

6 The case involves just a voluntary agreement. No
7 one who hasn't voluntarily committed their interest to the
8 unit will be affected by it. And therefore, there was no
9 requirement to give individual notice to any interest
10 owner. Either you joined and you're in, or you haven't and
11 you're unaffected.

12 So for that reason, we would submit the case
13 having been presented, or advertised in the Division's
14 legal advertisement to include the larger area, that notice
15 is still sufficient. It wouldn't be if we were enlarging
16 the area, but since we're contracting it, the notice covers
17 every square inch of land that's involved in this
18 Application. No one is involved or affected who hasn't
19 voluntarily committed to the land.

20 And so the Application now we would request be
21 amended to delete the east half of Section 6, but we submit
22 that will not require further notice or an additional
23 continuance and a new notice appearing.

24 EXAMINER ASHLEY: The Application will be
25 amended, and further notice will not be required.

1 MR. CARR: At this time we call John Humphrey.

2 JOHN HUMPHREY,

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

5 DIRECT EXAMINATION

6 BY MR. CARR:

7 Q. Would you state your full name for the record,
8 please?

9 A. John Humphrey.

10 Q. And where do you reside?

11 A. Artesia, New Mexico.

12 Q. By whom are you employed?

13 A. Yates Petroleum Corporation.

14 Q. And Mr. Humphrey, what is your position with
15 Yates Petroleum Corporation?

16 A. I'm a senior geologist with Yates Petroleum.

17 Q. Have you previously testified before the New
18 Mexico Oil Conservation Division?

19 A. Yes, I have.

20 Q. At the time of that testimony, were your
21 credentials as an expert witness in petroleum geology
22 accepted and made a matter of record?

23 A. Yes, they were.

24 Q. Are you familiar with the Application filed in
25 this case?

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1 A. Yes, I am.

2 Q. Are you familiar with Yates' proposed Indigo
3 State Unit?

4 A. Yes, I am.

5 Q. Have you made a geological study of the area
6 surrounding this unit?

7 A. Yes, I have.

8 Q. And are you prepared to share the results of your
9 work with Mr. Ashley?

10 A. Yes, I am.

11 MR. CARR: At this time, we tender Mr. Humphrey
12 as an expert witness in petroleum geology.

13 EXAMINER ASHLEY: Mr. Humphrey is so qualified.

14 Q. (By Mr. Carr) Could you briefly summarize what
15 it is Yates seeks with this Application?

16 A. Yates seeks approval of the Indigo State Unit
17 agreement, a voluntary exploratory, and it contains
18 approximately 2213.67 acres of State of New Mexico lands in
19 Lea County, New Mexico.

20 Q. And what horizons are being unitized in this unit
21 agreement?

22 A. All horizons.

23 Q. And what is the primary objective in the unit?

24 A. That would be the Atoka-Morrow formation.

25 Q. Is the Atoka-Morrow in this area within an

1 established pool?

2 A. No, it is not.

3 Q. Are there secondary objectives?

4 A. No.

5 Q. Have you prepared exhibits for presentation here
6 today?

7 A. Yes, I have.

8 Q. Let's go to what has been marked for
9 identification as Yates Petroleum Corporation Exhibit
10 Number 1. I'd ask you to identify that and then review it,
11 please.

12 A. Exhibit Number 1 is the land map showing the
13 proposed unit, which is 100-percent state acreage,
14 comprising of six state leases.

15 Q. And the boundary for the proposed unit is
16 indicated with the green line?

17 A. That is correct.

18 Q. Is that because of the requirements of the land
19 office that has to be adjusted to omit the --

20 A. -- east half --

21 Q. -- east half --

22 A. -- of Section 6, that's correct.

23 Q. Let's go to Exhibit Number 2. Will you identify
24 that, please?

25 A. Exhibit Number 2 is a unit agreement, which is

1 the state/fee form for an exploratory unit.

2 Q. And does this unit agreement contain an exhibit
3 which shows the ownership breakdown within the unit area?

4 A. Yes.

5 Q. Has that also been marked as Yates Exhibit Number
6 3 in this case?

7 A. That's correct.

8 Q. Would you just briefly review that for Mr.
9 Ashley?

10 A. Exhibit 3 is the ownership breakdown for the
11 unit. It shows the ownership of each lease in the unit
12 area.

13 Q. It shows that the basic royalty under each lease
14 is held by the State of New Mexico; is that right?

15 A. That's correct.

16 Q. The lessee of record for all tracts is Yates
17 Petroleum Corporation?

18 A. Yates Petroleum.

19 Q. There are no overriding royalty interests?

20 A. No.

21 Q. What percentage of these interests has
22 voluntarily committed to the unit agreement?

23 A. A hundred percent of the working interest.

24 Q. If we go now to what has been marked Exhibit
25 Number 4, could you identify that, please?

1 A. Yes, Exhibit Number 4 is the approval letter from
2 the State Land Office for the Indigo Unit.

3 Q. And this sets out the area they will approve as
4 being subject to inclusion in this unit?

5 A. That is correct.

6 Q. All right. And does Yates desire to be
7 designated operator of the Indigo Unit?

8 A. Yes, they do.

9 Q. Does the unit agreement provide for the periodic
10 filing of plans of development?

11 A. Yes, after completion of the discovery well,
12 every 12 months thereafter, for the periodic filings.

13 Q. So the first plan is six months and then 12
14 months?

15 A. Then 12 months thereafter, that's correct.

16 Q. Does Yates agree to file these plans of
17 development with the Oil Conservation Division?

18 A. Yes, they do.

19 Q. Mr. Humphrey, could you provide just a general
20 description of the Morrow formation under the proposed unit
21 area?

22 A. The productive Morrow in this area consists of
23 coarse-grained sand channel deposits that were deposited on
24 an unconformity surface, on the downthrown side of fault-
25 bounded topographic highs. From the mapping I've done in

1 the area, the productive Morrow seems to be in what we
2 would consider a paleo-low on the downthrown side of the
3 fault in the area.

4 Q. Let's go to your Exhibit Number 5, the structure
5 map.

6 A. Yes.

7 Q. And I'd ask you to review that for the Examiner.

8 A. Exhibit Number 5 is a structure map of the top of
9 the Mississippian, which is the main unconformity surface
10 the Morrow is deposited upon. Faulting in the area prior
11 to Morrow deposition created paleo-highs and paleo-lows in
12 which the coarse-grained Morrow sediments were deposited
13 east of the fault in this case, over the unit area.

14 I will have you note, the cross-section we'll
15 look at, which will be Exhibit 7, is indicated by the line
16 with A-A' on Exhibit Number 5.

17 Q. Let's now go to the Exhibit Number 6. Will you
18 identify this first and then review it for Mr. Ashley?

19 A. Okay. Exhibit Number 6 is a gross sand isopach
20 for the upper Morrow, which shows its accumulation on the
21 downthrown side of the aforementioned fault in the last
22 exhibit. And again, we feel the Morrow will accumulate in
23 the paleo-lows that were alluded to earlier.

24 Q. And basically with this map, you're able to show
25 that the portion of the Morrow formation which is the

1 subject of both this case and the proposed unit conforms
2 fairly closely to the proposed unit, right?

3 A. Yes, it does.

4 Q. Let's go now to your cross-section, Exhibit
5 Number 7.

6 A. Exhibit Number 7 is a structural cross-section,
7 A-A', that that was shown on the structure map of the top
8 of the Mississippi across the Indigo Unit, which shows the
9 sand thickness in the State E 1 well, drilled in 1955, that
10 Mr. Carr alluded to earlier that was plugged and abandoned.
11 You see a nice 20-foot thick Morrow in the well, indicated
12 by the dark yellow.

13 And on the cross-section you can see the sand's
14 truncation into the fault to the west, and additionally
15 this sand is thinning rapidly north of the unit boundary.

16 And so this shows -- gives you kind of an areal
17 idea of the sand accumulation over the Indigo Unit in the
18 upper Morrow sandstone.

19 Q. Did the State E 5 ever produce from the Atoka-
20 Morrow?

21 A. No, it was never tested, and there's really not a
22 gas market in this area, in the mid-1950s. So the Atoka-
23 Morrow was a zone that was neglected a lot in the earlier
24 wells.

25 Q. The State Land Office has required the spacing

1 unit dedicated originally to the well be excluded from the
2 unit?

3 A. That's correct.

4 Q. Even though the zone was never tested?

5 A. That's correct.

6 Q. And even though the spacing unit is comprised of
7 more than one state lease; is that right?

8 A. That's correct.

9 Q. And if the spacing unit had been oriented in a
10 different way, it would change, I guess, the acreage that
11 the State Land Office would now require to be removed from
12 the --

13 A. I believe that would be correct.

14 Q. Where will the initial test well be located?

15 A. The initial test wells will be located in Section
16 7 and.

17 Q. You've got two wells at this time, that either
18 one could qualify?

19 A. Yes, sir.

20 Q. And what is the status of those wells at this
21 moment?

22 A. The status of those wells is, we have a spudder
23 on both the locations currently.

24 Q. And in this circumstance you are asking that the
25 order in this case be expedited; is that right?

1 A. Yes, we are, Mr. Carr.

2 Q. Would you summarize for Mr. Ashley the results of
3 your geologic study?

4 A. The results, just a brief summary. Exhibit 8 is
5 a written summary of the geologic presentation. What we
6 found in this area is that the productive Atoka-Morrow, in
7 this case the Atoka-Morrow, we see fairly commonly on the
8 downthrown side of these faults, which we believe were
9 present during Morrow and Atoka deposition, due to the fact
10 you see significantly thinner section on the Atoka-Morrow,
11 on the upthrown side of the fault, as opposed to the
12 downthrown side, and we see better reservoir-quality sand
13 in the limited amount of data we do have on the downthrown
14 side of the fault.

15 So that, in a nutshell, is what we're shooting
16 for in the area.

17 Q. In your opinion, will either of the two wells
18 that you're currently drilling, will either of those wells
19 be at a location where you believe you would be able to
20 encounter quality reservoir in the Atoka-Morrow?

21 A. Yes, we believe so.

22 Q. In your opinion, is the area which you proposed
23 to include within the Indigo State Unit an area which can
24 be produced under a unit plan of development?

25 A. Yes.

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

3 A. Yes, they were.

4 MR. CARR: May it please the Examiner, at this
5 time we would move the admission into evidence of Yates
6 Petroleum Corporation Exhibits 1 through 8.

7 EXAMINER ASHLEY: Exhibits 1 through 8 will be
8 admitted as evidence.

9 MR. CARR: And that concludes our direct
10 examination of Mr. Humphrey.

11 EXAMINATION

12 BY EXAMINER ASHLEY:

13 Q. Mr. Humphrey, how many acres will this now
14 include with the removal of the State land acreage?

15 A. That was twenty-two hundred and -- let me thumb
16 back -- 2213.67, after the exclusion of the exclusion of
17 the 320 acres.

18 Q. Is there currently an Atoka-Morrow pool out
19 there?

20 A. The closest Atoka-Morrow production is up in
21 Township 11 South, 34 East, Section 25, on the northwest
22 side of the map, the Carper McAlester well that's on the
23 downthrown side of the fault on that side, and we have had
24 quite a bit of activity in that area with some success.
25 And that's part of -- That area is part of how we developed

1 our model for the area. But that is the closest Atoka-
2 Morrow production, to my knowledge.

3 Q. And this project name is the Indigo State Unit?

4 A. That's correct.

5 EXAMINER ASHLEY: I have nothing further. Thank
6 you.

7 THE WITNESS: Thank you very much.

8 MR. CARR: That concludes our presentation in
9 this case.

10 EXAMINER ASHLEY: There being nothing further in
11 this case, Case 12,372 will be taken under advisement.

12 (Thereupon, these proceedings were concluded at
13 11:55 a.m.)

14 * * *

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16
17
18
19 I do hereby certify that the foregoing is
20 a complete record of the proceedings in
the Examiner hearing of Case No. 12372
heard by me on 4-20 ~~2000~~
Mark Ashby, Examiner
22 of Conservation Division
23
24
25

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