

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

21 November 1985

EXAMINER HEARING

IN THE MATTER OF:

Application of Yates Petroleum Corporation for a unit agreement, Lea County, New Mexico. CASE 8750

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division: Jeff Taylor
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For the Applicant: Chad Dickerson
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MR. STOGNER: Call next Case

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Number 8750.

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MR. TAYLOR: Application of

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Yates Petroleum Corporation for a unit agreement, Lea

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County, New Mexico.

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MR. DICKERSON: Mr. Examiner,

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I'm Chad Dickerson of Artesia, New Mexico, on behalf of the

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applicant, and we have two witnesses.

10

MR. STOGNER: Is there any

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other appearances in this matter?

12

If not, will the witness please

13

stand and be sworn?

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15

(Witnesses sworn.)

16

17

WILLIAM JAMES BALL, JR.

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being called as a witness and being duly sworn upon his

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oath, testified as follows, to-wit:

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DIRECT EXAMINATION

22

BY MR. DICKERSON:

23

Q

Mr. Ball, will you state your name and

24

your occupation and by whom you're employed, please?

25

A

Yes. William James Ball, Junior. My

1 employer is Yates Petroleum Corporation of Artesia, New
2 Mexico.

3 Q And in what capacity are you employed?

4 A Landman.

5 Q Have you previously testified before this
6 Division as a landman, Mr. Ball?

7 A Yes, I have.

8 Q Are you familiar with the Yates applica-
9 tion in Case 8750?

10 A Yes, sir, I am.

11 MR. DICKERSON: Is this wit-
12 ness' qualifications acceptable, Mr. Examiner?

13 MR. STOGNER: They are.

14 Q Mr. Ball, what is the purpose of Yates
15 application in Case 8750?

16 A The purpose of this is to form a state
17 unit called the East Bagley State Unit, proposing Lots 1, 2,
18 3, south half northeast, southeast northwest, the east half
19 southwest, southeast quarter, and Section 7, comprising ap-
20 proximately 1105 acres .79.

21 Q And this is in Township 12 South, Range
22 34 East in Lea County?

23 A That's correct.

24 Q Will you refer to what we have submitted
25 as Exhibit Number One and tell the examiner what you show in

1 that exhibit?

2 A That is a unit outline indicated by the
3 dotted or dashed line indicating the unit boundaries. The
4 plat also shows lease expiration dates. More specifically
5 please note that there's an 80-acre lease in Section 7 ex-
6 piring December 1st, 1985. Basically it.

7 Q Does Yates propose to be conducting ac-
8 tual drilling operations on this unit prior to that expira-
9 tion date?

10 A Yes, sir, we'd like to start as soon as
11 possible.

12 Q And that's the lease on the east half of
13 the northeast quarter in Section 7.

14 A That's correct.

15 Q Where is Yates' proposed unit well to be
16 located?

17 A It's proposed in the northeast quarter of
18 Section 6.

19 Q Mr. Ball, refer to what we're marked as
20 Exhibit Number Two and tell us what that exhibit is?

21 A That is the unit agreement for the East
22 Bagley State proposed unit.

23 Q This is the standard state, all state
24 lands form of unit agreement?

25 A That's correct. Also a portion of that

1 unit agreement is consent ratifications to the unit agree-
2 ment and unit operating agreement.

3 Q What percentage of the working interest
4 and leasehold operators does Yates have committed to this
5 proposed unit area?

6 A Yates owns approximately 81 percent of
7 the unit.

8 Q But you have 100 percent of the interest
9 within the unit area committed, do you not?

10 A That's correct, 100 percent.

11 Q Direct the Examiner's attention to the
12 portion of that Exhibit Number Two which sets forth the sep-
13 arate tracts and their various ownership.

14 A That is Exhibit B, it's a leasehold sche-
15 dule showing the lessee of record and the working interest
16 owner percentages.

17 Q Mr. Ball, refer to what we've marked as
18 Exhibit Number Three and tell us what that document is.

19 A That is the joint operating agreement for
20 the said unit. It sets out the standard things such as the
21 operating rates and Exhibit A on it will show the breakdown
22 of the working -- I must correct myself. I said Yates has
23 81 percent of the unit. It's approximately 79 percent.

24 Q But again 100 percent of the interest
25 within the unit area are committed to this unit agreement

1 and unit operating agreement, are they not?

2 A That's correct.

3 Q And this instrument also provides for the
4 commencement of the initial unit well prior to December 1st,
5 1985.

6 A That's correct.

7 Q Mr. Ball, refer to Exhibit Number Four
8 and tell us what that is.

9 A That is a letter from the Commissioner --
10 Land Commissioner's Office giving us preliminary approval of
11 the unit.

12 Q And promptly upon the hearing's comple-
13 tion we propose to file an application for final approval
14 with the Commissioner of Public Lands.

15 A That's correct, and again we have a very
16 important deadline of December 1st.

17 Q Mr. Ball, were Exhibits One through Four
18 compiled by you or under your direction and supervision?

19 A Yes, they were.

20 MR. DICKERSON: Mr. Examiner,
21 we move admission of Applicant's Exhibits One through Four
22 at this time.

23 MR. STOGNER: Exhibits One
24 through Four will be admitted into evidence.

25 MR. DICKERSON: And I have no

1 further questions of this witness.

2

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CROSS EXAMINATION

4 BY MR. STOGNER:

5 Q Mr. Ball, is there any particular forma-
6 tion that's getting unitized or do you plan to unitize all
7 formations?

8 A We plan to unitize all formations.

9 Q I show on Exhibit B of -- I'm sorry, Part
10 B of Exhibit Two that PanCanadian Petroleum Company is the
11 other interest owner.

12 A That's correct.

13 Q And this is all state land, is it not?

14 A That's correct.

15 MR. STOGNER: I have no ques-
16 tions of Mr. Ball.

17 Does anybody else have any
18 questions of this witness?

19 If not, he may be excused.

20 MR. DICKERSON: Call Mr. Mark
21 Mauritsen.

22

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1 MARK MAURITSEN,

2 being called as a witness and being duly sworn upon his
3 oath, testified as follows, to-wit:

4
5 DIRECT EXAMINATION

6 BY MR. DICKERSON:

7 Q Mr. Mauritsen, will you state your name,
8 your occupation, and by whom you're employed?

9 A My name is Mark Mauritsen. I am a geolo-
10 gist with Yates Petroleum in Artesia.

11 Q Mr. Mauritsen, where did you receive your
12 educational degrees and what -- would you briefly summarize
13 your employment history for the Examiner?

14 A I have received a Bachelor's degree at
15 New Mexico State University in geology and followed that
16 with a Master's degree at Washington State University.

17 Then went to work as a mudlogger for ap-
18 proximately four months in southeast New Mexico and since
19 then for the past approximately year and a half have worked
20 for Yates Petroleum as a geologist.

21 Q What years did you receive your Bache-
22 lor's and Master's degrees?

23 A I received a Bachelor's degree in 1981
24 and a Master's degree in 1983.

25 Q Are you familiar with Yates' application

1 in Case 8750?

2 A Yes, I am.

3 Q Have you made a study of the geological
4 foundation for the formation of this proposed state unit?

5 A Yes, I have.

6 MR. DICKERSON: Mr. Examiner,
7 is this witness considered qualified?

8 MR. STOGNER: Mr. Mauritsen is
9 so qualified.

10 Q Mr. Mauritsen, refer to what we've marked
11 as Exhibit Number Five and tell us what that is.

12 A Exhibit Number Five is a regional map
13 including parts of Roosevelt, Lea, and Chaves County in
14 southeast New Mexico. It illustrates the oil and gas fields
15 mainly surrounding the Tatum Basin on the Northwest Shelf of
16 the Permian Basin.

17 The shaded areas are Bough production,
18 Bough oil production, and the areas that are outlined are
19 production other than Bough, Bough C formation within the
20 Cisco formation, Pennsylvanian.

21 Q What are the principal geologic targets
22 that Yates seeks in the drilling of this proposed unit well
23 and the formation of this unit?

24 A The principal objective in drilling this
25 well is the Bough B formation and we also have a secondary

1 objective in the Ranger Lake, which is a lower Cisco
2 formation.

3 Q And what is the anticipated total depth
4 of this unit well?

5 A Anticipated total depth is approximately
6 10,450 feet.

7 Q Mr. Mauritsen, direct your attention to
8 Exhibit Number Six and tell us what you've shown on that in-
9 strument.

10 A Exhibit Number Six is a map illustrating
11 the production in the area surrounding the East Bagley --
12 proposed East Bagley State Unit.

13 The orange denotes Bough B production and
14 the numbers beside those -- those orange wells are the bar-
15 rels of oil that have been produced.

16 The blue denotes Bough C production; the
17 green the North Wolfcamp production, and the red denotes
18 Bough A production. It should be noted that the only econo-
19 mic producer in the Bough B formation is the well in Sec-
20 tion 5, which has produced 130,000.4 barrels in 19 -- by
21 1984, end of 1984.

22 Q When was that well drilled, approximate-
23 ly?

24 A I believe 1964 it was drilled.

25 Q Okay, Mr. Mauritsen, refer to Exhibit

1 Number Seven and tell us what that map shows.

2 A Exhibit Number Seven is a structure map
3 based on -- contoured on the top of Ranger Lake formation, a
4 lower Cisco marker, and it should be noted that our unit is
5 not based on this Ranger Lake formation, however, and there
6 is also is no Ranger Lake production in the area; however,
7 just to the south of the map area in the East Hightower
8 Field there is production in the Ranger Lake in a similar
9 circumstance that -- as what we have in the East Bagley
10 area, a small structural nose.

11 Most wells within the map area have pene-
12 trated the Ranger Lake formation but are almost always wet.
13 It seems to need some kind of closure for production in Ran-
14 ger Lake.

15 Q Mr. Mauritsen, turn now to Exhibit Number
16 Eight and describe what you've shown on that map.

17 A Exhibit Number Eight is a geologic map
18 combining both porosity and a structure map. The structure
19 is based -- contoured on the top of the Bough C, which is a
20 marker just below our Bough B objective.

21 Solid lines are -- denote the structure
22 of the Bough B, except in the center part of the map where
23 we have 50-foot contours. They are denoted by lightly
24 hatched lines, 5750 and 5850. The porosity map, porosity
25 lines are heavily dashed lines and also we have an oil/water

1 contact line and an up-dip porosity pinchout line, very
2 heavy line with diagonal slashes.

3 The geology of the area consists of -- in
4 the Tatum Basin in the east side of the -- or the west side
5 of the Tatum Basin there are a number of Devonian faults and
6 there is a Devonian fault underlying the steep dip that you
7 see over in Section -- or in 11, 33, and 12, 33, townships.
8 That deep Devonian fault has caused very steep dip and this
9 steep dip has produced an up-dip pinchout of the porosity up
10 against our East Bagley State Unit proposed area.

11 The porosity is based on wells, the Bough
12 B formation seems to have intermittent porosity and wells
13 that are outside the porosity boundardies have been tested
14 tight or show no porosity in the logs.

15 Wells within the porosity boundaries have
16 either produced oil or water or shown that they have some
17 porosity.

18 The oil/water contact is based upon pro-
19 duction. The well in Section 5 that has produced 130,000
20 barrels initially produced only about 36 percent oil, so we
21 feel that it's fairly close to the oil/water contact. It
22 presently produces about 200 barrels a month.

23 The two limitations on porosity, the por-
24 osity just based on wells and the up-dip porosity show that
25 we apparently have some sort of trap that combines a struc-

1 tural nose, the small structural nose that we have in the
2 Bough C and the up-dip porosity pinchout to form a trap
3 within the East Bagley State Unit.

4 Q Mr. Mauritsen, tell the Examiner just a
5 little bit about that well which shows on this exhibit to be
6 plugged in the southeast quarter southeast quarter of Sec-
7 tion 6?

8 A That well in the southeast quarter south-
9 east quarter of Section 6, Sanborn Oil drilled that and has
10 produced approximately 29,000, a little over 29,000 barrels
11 of oil. It was slightly tight and that's why it was -- did
12 not seem to be commercial.

13 Q Mr. Mauritsen, refer to your Exhibit Num-
14 ber Nine and describe what you've shown us on that exhibit.

15 A Exhibit Number Nine is a cross section.
16 It's an east/west cross section A-A' and on the map that you
17 see you can see which wells it has gone through. Mainly we
18 used this to show that the Bough B formation is fairly con-
19 tinuous throughout the area; however, it does have intermit-
20 tent porosity.

21 Also it shows that there's steep dip on
22 the west side of the cross section. We feel that this is
23 producing our up-dip pinchout of the porosity against which
24 we're hoping that there is a structural trap.

25 Q Mr. Mauritsen, in your opinion will the

1 granting of this application be in the interest of conserva-
2 tion and the prevention of waste?

3 A Yes, it would.

4 Q Were Exhibits Five through Nine prepared
5 by you or under your direction and supervision?

6 A Yes, they were.

7 MR. DICKERSON: Mr. Examiner, I
8 move the admission of Applicant's Exhibits Five through Nine
9 at this time.

10 MR. STOGNER: Exhibits Five
11 through Nine will be admitted into evidence.

12 MR. DICKERSON: And I have no
13 further questions of this witness.

14

15 CROSS EXAMINATION

16 BY MR. STOGNER:

17 Q Mr. Mauritsen, the Sanborn Oil Company
18 well that you alluded to, the plugged and abandoned well,
19 how long did that produce?

20 A I've got that here.

21 MR. DICKERSON: Mr. Stogner, I
22 might mention that there seems to be a little bit of confu-
23 sion over whether or not that well is in fact plugged and
24 abandoned. No one has been able to locate a report reflec-
25 ting that. We discussed this with the Commissioner of Pub-

1 MR. STOGNER: I'll gladly ac-
2 cept this.

3 MR. DICKERSON: If you'd sign
4 it today, we'd appreciate it.

5 MR. STOGNER: Thank you, Mr.
6 Dickerson.

7 This witness may be dismissed.
8 If there is nothing further in
9 this case, it will be taken under advisement.

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(Hearing concluded.)

C E R T I F I C A T E

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I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8750, heard by me on 21 November 1985.

Michael E. Stewart, Examiner
Oil Conservation Division