

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

IN THE MATTER OF THE HEARING CALLED BY )  
THE OIL CONSERVATION DIVISION FOR THE )  
PURPOSE OF CONSIDERING: ) CASE NO. 12,870  
)  
APPLICATION OF YATES PETROLEUM )  
CORPORATION FOR APPROVAL OF A UNIT )  
AGREEMENT, LEA COUNTY, NEW MEXICO )  
\_\_\_\_\_)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

May 30th, 2002

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, May 30th, 2002, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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## I N D E X

May 30th, 2002  
 Examiner Hearing  
 CASE NO. 12,870

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<u>JOHN AMIET</u> (Geologist)	
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## A P P E A R A N C E S

## FOR THE DIVISION:

DAVID K. BROOKS  
Attorney at Law  
Energy, Minerals and Natural Resources Department  
Assistant General Counsel  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

## FOR THE APPLICANT:

HOLLAND & HART, L.L.P., and CAMPBELL & CARR  
110 N. Guadalupe, Suite 1  
P.O. Box 2208  
Santa Fe, New Mexico 87504-2208  
By: WILLIAM F. CARR

## ALSO PRESENT:

WILL JONES  
Engineer  
New Mexico Oil Conservation Division  
1220 South Saint Francis Drive  
Santa Fe, NM 87501

\* \* \*

1           WHEREUPON, the following proceedings were had at  
2 10:30 a.m.:

3           EXAMINER STOGNER: This hearing will come to  
4 order.

5           At this time I'll all Case Number 12,870, which  
6 is the Application of Yates Petroleum Corporation for  
7 approval of a unit agreement, Lea County, New Mexico.

8           At this time I'll call for appearances.

9           MR. CARR: May it please the Examiner, my name is  
10 William F. Carr with the Santa Fe office of Holland and  
11 Hart, L.L.P. We represent Yates Petroleum Corporation in  
12 this matter. I have one witness.

13           EXAMINER STOGNER: Any other appearances?  
14 Will the witness please stand to be sworn?  
15 (Thereupon, the witness was sworn.)

16           EXAMINER STOGNER: Mr. Carr?

17                         JOHN AMIET,  
18 the witness herein, after having been first duly sworn upon  
19 his oath, was examined and testified as follows:

20                                 DIRECT EXAMINATION

21 BY MR. CARR:

22           Q.    Would you state your name for the record, please?

23           A.    John Amiet.

24           Q.    Mr. Amiet, where do you reside?

25           A.    I live in Artesia, New Mexico.

1 Q. By whom are you employed?

2 A. Yates Petroleum.

3 Q. And what is your position with Yates Petroleum  
4 Corporation?

5 A. I'm a geologist with Yates.

6 Q. Have you previously testified before this  
7 Division?

8 A. Yes, I have.

9 Q. At the time of that testimony, were your  
10 credentials as an expert in petroleum geology accepted and  
11 made a matter of record?

12 A. Yes, they were.

13 Q. Are you familiar with the Application filed in  
14 this case on behalf of Yates Petroleum Corporation?

15 A. Yes.

16 Q. Are you familiar with the proposed Big Hat State  
17 Exploratory Unit, including the status of the lands within  
18 the proposed unit area?

19 A. Yes, I am.

20 Q. Have you made a geological study of the area  
21 which is the subject of this case?

22 A. Yes.

23 Q. And are you prepared to share the results of your  
24 work with the Examiner?

25 A. Yes, I am.

1 MR. CARR: Are Mr. Amiet's qualifications  
2 acceptable?

3 EXAMINER STOGNER: They are.

4 Q. (By Mr. Carr) Would you briefly state what Yates  
5 seeks with this Application?

6 A. Yates seeks approval of the Big Hat State  
7 Exploratory Unit agreement. This is a voluntary  
8 exploratory unit which contains approximately 3261 acres.  
9 This acreage is located in Lea County, New Mexico.

10 Q. Let's go to what has been marked for  
11 identification as Yates Exhibit Number 1. Would you  
12 identify that, please?

13 A. This is the unit agreement. It's based on a  
14 state fee form for an exploratory unit.

15 Q. Mr. Amiet, if you would go to the back of this  
16 exhibit to the plat, which is the second to the last page,  
17 could you identify -- and it's marked Exhibit 2 -- would  
18 you explain what this shows?

19 A. This is the plat to the unit agreement. It shows  
20 -- it reviews the status of the acreage, shows the nine  
21 State of New Mexico leases which are involved.

22 Q. And the next page is marked Exhibit 3. Would you  
23 identify and review that?

24 A. This is a table of the ownership breakdown. It  
25 shows the ownership of each lease in the unit area. All of

1 these leases are either by Yates parties or David Petroleum  
2 parties. The working interests are common, and all tracts  
3 are fully committed.

4 Q. And you have 100 percent of the working interests  
5 committed to the unit?

6 A. Yes, we do. Yates has 50 percent and David  
7 Petroleum has 50 percent.

8 Q. Is the unit 100-percent State of New Mexico land?

9 A. Yes, it is.

10 Q. Have you reviewed the unit agreement with the  
11 Commissioner of Public Lands?

12 A. Yes, I have, I spoke with Mr. Martinez of the  
13 State Land Office several times. The last time was  
14 yesterday. He reviewed the exploratory proposal and had no  
15 problems with it. He said his staff is currently reviewing  
16 it. We're expecting the approval letter soon.

17 Q. When you get the approval letter from the  
18 Commissioner of Public Lands, will you provide a copy of it  
19 to the Oil Conservation Division?

20 A. Yes, I will.

21 Q. Does Yates Petroleum Corporation seek to be  
22 designated operator of this unit?

23 A. Yes.

24 Q. What is Exhibit Number 4?

25 A. This is the AFE. It sets out the dryhole cost of

1 \$431,700 and a completed well cost of \$921,500. This is  
2 for re-entry and deepening of an existing wellbore. We  
3 plan on spudding this before July 1st, since two of the  
4 units expire on that date if the unit is not approved and  
5 drilling has not commenced.

6 Q. Does the unit agreement provide for the periodic  
7 filing of plans of development?

8 A. Yes.

9 Q. Will these plans be filed with the Oil  
10 Conservation Division at the same time they're filed with  
11 other affected agencies?

12 A. Yes, they will be.

13 Q. And how often are these plans to be filed?

14 A. This is covered in Article 9 of the unit  
15 agreement. The initial plan is six months after completion  
16 of the first unit well, subsequent plans are twelve months  
17 thereafter.

18 Q. And what formations are unitized?

19 A. All formations.

20 Q. Where is the initial test well going to be re-  
21 entered and completed? Where is it located?

22 A. This is re-entering the Gulf Oil South Sanders  
23 Unit Number 2, was the original well. It's 1980 feet from  
24 the south line and 660 feet from the west line, Township 16  
25 South, Range 33 East.

1 Q. Is that in Section 2?

2 A. That's in Section 2, that's correct.

3 Q. And you're going to drill it to test what  
4 formation?

5 A. Primary objectives in this well will be the  
6 Atoka-Morrow sands. This will be a wildcat, since there  
7 are no productive wells within several miles. There are  
8 several Morrow penetrations in this unit, although only one  
9 produced, and it was not a marginal well -- or it was a  
10 marginal well.

11 Q. You're going to take the well down to the  
12 Mississippian formation?

13 A. Yes, TD will be 13,700 feet, which we'll TD in  
14 the Mississippian.

15 Q. Is that a secondary objective in the well?

16 A. Yes, it will be.

17 Q. Are there other secondary objectives?

18 A. Possibly the lower Penn zones, both limestones  
19 and possible sands.

20 Q. Mr. Amiet, let's go to what has been marked Yates  
21 Exhibit Number 5. Would you identify and review this for  
22 the Examiner?

23 A. This is a structure map on top of the Morrow.  
24 The scale on this map is one inch equals 2000 feet. This  
25 is showing all wellbores. There are five wells here that

1 have penetrated the Morrow. If you look at the well  
2 symbols, there's a TD immediately below it shown in black.

3 Below that, on five of these wells, there's a  
4 parentheses, -8477. This will be a subsea depth at the top  
5 of the Morrow. This is shown in red.

6 Q. And what are the yellow areas on this map?

7 A. The highs are shown in yellow, the blues indicate  
8 lows. The blue lines would be the channel coming through  
9 these lows.

10 Q. And have you developed this map from well  
11 control, or do you also have seismic information on the  
12 area?

13 A. I've made this map by integrating both the  
14 seismic data and well controls.

15 Q. And we have on this exhibit a trace for a  
16 subsequent cross-section; is that correct?

17 A. Cross-section A-A' is shown on here that we'll be  
18 talking about in a minute.

19 Q. And the cross-section is marked Exhibit 6?

20 A. That's correct.

21 Q. Would you go to that now and review the cross-  
22 section for Mr. Stogner?

23 A. The cross-section location is also shown on a  
24 plat right at the bottom. Let's talk about the first well  
25 on the right side of the cross-section. This is not in the

1 unit area. Again, the unit area is shown by the red  
2 outline.

3 This first well that we're looking at is the  
4 Skelly Sombrero Unit Number 1, the well located to the  
5 right of the cross-section. The first sand shown in yellow  
6 is lower Atoka. It's wet in this well. You come down to  
7 the thin second shown, that's right at the base of the  
8 Morrow.

9 This well produced an EUR of 66,000 barrels of  
10 oil and 1.7 BCF from this lower Morrow zone. If you follow  
11 this sand to the west, it pinches out before you get to the  
12 Yates Red Hat well.

13 Following it further to the west, you come to our  
14 proposed re-entry and deepening. Again, our seismic  
15 indicates that this is going to be at least as low or lower  
16 than the well that produced, and so we're optimistic that  
17 we'll find a sand and it will be a productive sand in this  
18 location.

19 Continuing on farther to the west, again you come  
20 up on a structure. And this sand pinches out again, and  
21 it's not present in the well farthest to the left.

22 Q. Mr. Amiet, is Exhibit Number 7 a summary of your  
23 geological presentation?

24 A. Yes, it is.

25 Q. Refer to the summary. Could you just explain to

1 the Examiner why Yates is proposing to develop this area  
2 under a unit plan?

3 A. Again, we're talking about the initial completed  
4 well cost as \$921,500. These are risky wells to drill.  
5 Just hitting the channel doesn't guarantee that you're  
6 going to have sand. There are no economic wells that have  
7 been drilled inside the proposed unit area.

8 The best well that has been drilled was located  
9 in Section 10, 1980 from the north and east lines. It's  
10 the Samedan well. It produced 6000 barrels of oil and 102  
11 million cubic feet of gas. This is approximately one-tenth  
12 of what you'd need for an economic well, and this is the  
13 best well in this unit area.

14 There are two other oil wells shown, one in  
15 Section 2, the Yates Red Hat well made 750 barrels of oil,  
16 and the well in the northeast corner of Section 3 made just  
17 over 5000 barrels of oil.

18 So again, there's no economic wells that have  
19 been drilled in this unit outline.

20 The last deep well that's been drilled was  
21 drilled in 1991, so there's been no drilling in the last  
22 ten years. And we feel that the formation of the unit will  
23 result in a more reasonable development of the potential  
24 reserves in this unit area, and it can be effectively  
25 developed under a unit plan.

1 Q. If you're successful with this re-entry, then  
2 there is a potential for additional development within the  
3 unit area?

4 A. Yes, there will be wells drilled both to the  
5 north and south of the re-entry well.

6 Q. In your opinion, will approval of this  
7 Application be in the best interest of conservation, the  
8 prevention of waste and the protection of correlative  
9 rights?

10 A. Yes.

11 Q. Were Exhibits 1 through 7 either prepared by you,  
12 or have you reviewed them and can you testify as to their  
13 accuracy?

14 A. Yes, they were.

15 MR. CARR: Mr. Stogner, at this time we would  
16 move the admission into evidence of Yates Petroleum  
17 Exhibits 1 through 7.

18 EXAMINER STOGNER: Exhibits 1 through 7 will be  
19 admitted into evidence.

20 MR. CARR: And that concludes my direct  
21 examination of Mr. Amiet.

22 EXAMINATION

23 BY EXAMINER STOGNER:

24 Q. Mr. Amiet, can you explain to me -- I mean, I've  
25 been here for quite a few years and whenever an exploratory

1 unit was brought to me, there was very seldom a well on it.  
2 Then all of a sudden here lately, I've got units, there are  
3 five old uneconomical wells here that they're trying to  
4 abandon or are noncommercial. Is there a change going on  
5 at the Land Office?

6 A. Well, I think part of the change is, we're trying  
7 some new things. A lot of these wells have been drilled  
8 from seismic data on old highs. We're kind of changing  
9 direction and trying to drill in some of the lows. So this  
10 is kind of a new trend that we've had some success with.  
11 Obviously, if a sand is going to be deposited it's going to  
12 be deposited in the lows, when you have a channel sand it  
13 doesn't go across the highs.

14 So one of the problems is the timing of the  
15 faults. You want to be sure that the lows today were the  
16 lows when the sand was being deposited.

17 Again, there have been a lot of wells drilled  
18 here, five wells that penetrated the Morrow, but again none  
19 of these were economic. And again, no drilling has been  
20 done for over ten years. So we're trying to take some of  
21 the production that's off to the east and develop some  
22 channels in this unit area.

23 And I've talked to Mr. Martinez about this, and  
24 he again doesn't have a problem with this. These are all  
25 state lands, and we talked about some of the offsetting

1 production and the wells that were drilled in the unit  
2 area.

3 MR. CARR: Mr. Stogner, you're correct, though,  
4 there is a change in the policy at the State Land Office.  
5 They had standard forms for exploratory units and then for  
6 enhanced recovery -- for waterflood projects, and several  
7 of these units were denied by the Land Office, and also  
8 they had certain tracts contracted out of proposed units  
9 because of very old wells and old wells in the unit area.

10 We met with them, and there were meetings  
11 concerning the adoption of a new unit form for development  
12 units. And after attempting to work on that form for a  
13 while, the Land Office indicated to us that if there was no  
14 current production they would be willing to accept these on  
15 the exploratory unit form. And that's why we're coming in  
16 with these at this time.

17 There were several recently, you may recall,  
18 where -- We had one that looked like a donut because one  
19 tract in the middle had to come out, because there was a  
20 well that had penetrated the formation in 1954. And so  
21 that's what triggered those discussions with the Land  
22 Office. I think it was the Shinnery Unit, is the one that  
23 actually triggered this change.

24 EXAMINER STOGNER: How long ago was that? Do you  
25 recall?

1           MR. CARR: That was probably two years ago.  
2           There were meetings with the Land Office Advisory Board on  
3           potential changes to the way they were handling a unit, and  
4           there was an effort internally, I understand, to come up  
5           with a new form. But then they concluded that it would be  
6           appropriate, since the new form looked very much like this  
7           form, to review them on an individual basis. And if it  
8           appeared that we weren't using the unit -- an exploratory  
9           unit for the development of existing reserves, that they  
10          would accept this form.

11          Q.    (By Examiner Stogner) Well, Mr. Amiet, when  
12          Yates went initially before the State Land Office to  
13          discuss this matter, was this the initial size of the unit,  
14          or did you ask for something bigger?

15          A.    No, this was the size that I talked with about  
16          Mr. Martinez. I've spoken with him several times.

17          Q.    Okay, when you went in there initially, did you  
18          have information on all of the wells? Was that definitely  
19          -- I mean, I'm assuming that was looked at quite  
20          extensively.

21          A.    Well, I spoke to him on the phone, like I say,  
22          several times. And yes, I had information about the wells  
23          and knew that none of them were economic, but I told there  
24          were five penetrations, none of them economic.

25          I also told him that there was an offset well

1 that was a good producer from the Morrow, and he said that  
2 wasn't a problem as long as it's not in the unit outline.

3 Q. Now, since this is a unit for all formations, how  
4 about the other wells that didn't penetrate the Morrow?  
5 Were those questioned, or what am I looking at on those, or  
6 were any of those commercial?

7 A. There are no commercial wells within the unit  
8 outline. Like I say, there's two wells, one in Section 2  
9 that made -- this was a Yates well, made 750 barrels of oil  
10 in 1991. The second was a well drilled in 1957, in the  
11 northeast quarter of Section 3; it made about 5000 barrels  
12 of oil.

13 So again, there are no economic wells, or  
14 anything close to an economic well, that's been drilled  
15 within this unit area. And we're coming in with a new  
16 concept and trying to develop some production in this area.  
17 It's never had an economic well drilled.

18 Q. When I refer to Exhibit Number 6, the fourth  
19 well, or the number four well, is identified as Yates  
20 Petroleum Corporation's Red Hat State Unit.

21 A. That's correct.

22 Q. What happened to the old Red Hat State Unit?  
23 Where was that?

24 A. That was drilled in 1991. Like I say, it made  
25 750 barrels before that zone was abandoned.

1 Q. Okay. Do you know what acreage the Red Hat Unit  
2 encompassed?

3 A. Since that was an oil well, I assume it would  
4 have just been a 40-acre -- or, well, I don't know if that  
5 -- That lease wasn't expiring, but I'm sure if we had  
6 offset that well it would have been a 40-acre unit, I'm  
7 sure.

8 Q. Well, when I say "unit" here --

9 A. Forty-acre --

10 Q. -- the Red Hat State Unit, to me, depicts that  
11 there was a unitized interval. Not a spacing unit, a  
12 unitized interval.

13 A. No, I understand -- I'm sorry, I understand the  
14 question. I'm not sure how big that unit was at that  
15 point.

16 EXAMINER STOGNER: I'll take administrative  
17 notice. I'm sure we'll have it here somewhere.

18 MR. CARR: Or I can provide it to you if you  
19 like.

20 EXAMINER STOGNER: I will have it. It will be in  
21 the *Byram's*, and I'll take administrative notice of it.

22 Q. (By Examiner Stogner) If this well is a success,  
23 what would be Yates's next plan? Go drill a new one, or  
24 re-enter one of the old ones?

25 A. No, we would drill a new one. If you go back to

1 Exhibit Number 5, we would probably stay in that same  
2 channel and possibly drill two more wells in Section 2 to  
3 the north. That would depend on a reservoir engineering  
4 study and how large an area this re-entry would drain.

5 And also going down into Section 10, we'd  
6 probably continue down -- perhaps two wells down in the  
7 eastern half of Section 10.

8 So there's a possibility for four more wells in  
9 the same channel system.

10 Q. Now, you said that you utilized some seismic  
11 data. How old a seismic data?

12 A. It's brand-new seismic. We spent about \$150,000  
13 buying the seismic, covering this area and several sections  
14 surrounding.

15 Q. Now, when you run a seismic line of this  
16 magnitude in this size of an area, how many lines are we  
17 talking about?

18 A. Oh, this was a 3-D survey, and it covered right  
19 around 20 square miles. And this is what we focused in on  
20 after shooting the 3-D.

21 This was a joint effort of both David Petroleum  
22 and Yates Petroleum. Each has 50-percent interest in this  
23 area.

24 Q. And according to your testimony, Yates will be  
25 the operator; is that correct?

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A. That's correct.

EXAMINER STOGNER: Are there any other questions  
of this witness?

You may be excused.

Anything further, Mr. Carr?

MR. CARR: Nothing further.

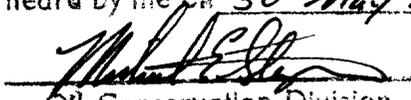
EXAMINER STOGNER: Case Number 12,870 will be  
taken under advisement.

MR. CARR: Thank you

(Thereupon, these proceedings were concluded at  
10:50 a.m.)

\* \* \*

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 12870  
heard by me on 30 May 2002.

  
Examiner  
Oil Conservation Division

## CERTIFICATE OF REPORTER

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

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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 May 31st, 2002.



STEVEN T. BRENNER  
 CCR No. 7

My commission expires: October 14, 2002