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STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
CASE 9908

EXAMINER HEARING

IN THE MATTER OF:

Application of BHP Petroleum Company, Inc., for a  
Unit Agreement, Chaves County, New Mexico

TRANSCRIPT OF PROCEEDINGS

BEFORE: MICHAEL E. STOGNER, EXAMINER

STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO

April 18, 1990

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A P P E A R A N C E S

FOR THE APPLICANT:

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\* \* \*

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1           WHEREUPON, the following proceedings were had  
2 at 8:21 a.m.:

3           EXAMINER STOGNER: Call next case, Number  
4 9908, which is the Application of BHP Petroleum  
5 Company, Incorporated, for a unit agreement, Chaves  
6 County, New Mexico.

7           I'll call for appearances.

8           MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin  
9 of the Santa Fe law firm of Kellahin, Kellahin and  
10 Aubrey. I'm appearing on behalf of the Applicant, and  
11 I have two witnesses to be sworn.

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

14           Will the witnesses please stand to be sworn.

15           (Thereupon, the witnesses were sworn.)

16                       WILLIAM J. MORRIS,  
17 the witness herein, after having been first duly sworn  
18 upon his oath, was examined and testified as follows:

19                               EXAMINATION

20 BY MR. KELLAHIN:

21           Q. All right, Mr. Morris, for the record would  
22 you please state your name and occupation?

23           A. My name is William J. Morris. I'm a  
24 geologist for BHP Petroleum Company.

25           Q. Mr. Morris, have you on prior occasions

1 testified before the Oil Conservation Division of New  
2 Mexico as a petroleum geologist?

3 A. Yes, sir, I have.

4 Q. Pursuant to your employment as a geologist  
5 for your company, Mr. Morris, have you made a study of  
6 the exploration geology that applies for the proposed  
7 Sunfish State Unit Area in Chaves County, New Mexico,  
8 that's the subject of this Application?

9 A. Yes, sir.

10 MR. KELLAHIN: Mr. Examiner, we tender Mr.  
11 Morris as an expert petroleum geologist.

12 MR. STOGNER: Mr. Morris is so qualified.

13 Q. (By Mr. Kellahin) Mr. Morris, so that you  
14 might orient us as to what your company seeks to  
15 accomplish, let me ask you, sir, to turn to what is  
16 marked as Exhibit 1, the land plat of this vicinity.  
17 Would you take a moment and describe for us the acreage  
18 that's involved in this particular Application?

19 A. Okay, the acreage that's involved in the unit  
20 we're trying to put together is shown by outline with  
21 the red tape. And all the yellow-colored is the acres  
22 that BHP has under lease or control of.

23 Q. As a geologist, what formation are you  
24 seeking to unitize for exploration purposes with this  
25 unit?

1           A.    Okay, we're looking to unitize the Ordovician  
2 Montoya Formation. We're looking for gas in this zone  
3 which is producing to the south and to the west here.

4           Q.    In reviewing the geology, Mr. Morris, have  
5 you reached a geologic conclusion concerning the  
6 configuration of the acreage and its relationship to  
7 the geologic prospect for production from this  
8 formation?

9           A.    Okay, for the most part, this -- The  
10 prospective area follows the outline of the proposed  
11 unit fairly well.

12          Q.    Okay. Let me have you identify for us how  
13 you reached that conclusion, Mr. Morris.

14                    If we turn to Exhibit Number 2, is that what  
15 you're looking at now?

16          A.    Right.

17          Q.    Is this an exhibit that you prepared?

18          A.    Yes, sir, it is.

19          Q.    Identify it for us.

20          A.    Okay, it's a structure map on the base of the  
21 Pennsylvanian. This is an unconformable surface out  
22 here, and there four well control points, and we have  
23 five seismic lines that we've used to generate and make  
24 this map.

25          Q.    When we look at Exhibit 1 and compare it to

1 the structure map, Exhibit Number 2, can you describe  
2 for us why there's a -- why the unit takes the certain  
3 configuration it does as it moves up into Sections 5  
4 and then into Section 32 of the next township?

5 A. Okay, yeah. The seismic interpretation shows  
6 that there could be several faults in the area and  
7 stuff. And we've -- have shown the structurally  
8 highest points, is what feel is going to be the  
9 prospective area within the unit and stuff, and --

10 Q. All right. When we look, then, at Exhibit 2  
11 and see the proposed location --

12 A. Right.

13 Q. -- why have you proposed that as the first  
14 unit well?

15 A. Because we believe that's the structurally  
16 highest point on the formation of -- the objective  
17 formation.

18 Q. When we look to the east of Section 32, why  
19 is Section 33 not included, or at least some portion of  
20 that included, in your unit?

21 A. Okay, that's part of the East Wind State Unit  
22 that's operated by Yates.

23 Q. That's already in an existing unit?

24 A. Exactly.

25 Q. Okay. When we look at Exhibit Number 1 and

1 you look to the northwest of your unit, is there also  
2 another unit operated by Yates in this area?

3 A. Right. Sections 30 and 31 are part of the  
4 Yates Dragonfly State Unit, and to the west Section 6  
5 is in Yates's Sunnyside Unit.

6 Q. All right. So the exclusion of Section 6,  
7 then, immediately to the west 5, is based, then, upon  
8 the fact that it's already part of a unit?

9 A. Right, it's already unitized.

10 Q. Are you satisfied as a geologist, Mr. Morris,  
11 that you have effective control over the development  
12 for the exploration of production from this formation  
13 with the approval of this unit?

14 A. Yes, sir, I do.

15 Q. Have you also prepared any cross-sections?

16 A. Yes, sir, I've prepared two cross-sections  
17 for this hearing.

18 Q. Let's take a moment and look at those. I  
19 think the first one is marked as Exhibit Number 3, and  
20 that is a cross-section running generally from west to  
21 east, is it?

22 A. Yes, yes, it is.

23 Q. Describe for us what this shows you.

24 A. Okay, this shows the structural attitude of  
25 the wells and the formations within the area. The

1 objective formation, Montoya, is shown in yellow. On  
2 the left side we show an upthrown fault, and basically  
3 we're trying to get high to the Sun Well, which is the  
4 middle well in the cross-section. And you can see  
5 where we have written the proposed location.

6 We feel that we can get 50 to 75 feet higher  
7 to that well and make a good gas well.

8 Q. The Sun Well, did that ever produce  
9 commercial gas from any formation?

10 A. No, that was a dry hole.

11 Q. When we look at the well to the east on the  
12 cross-section, the Yates Petroleum Well --

13 A. Okay.

14 Q. -- in the Foor Ranch area --

15 A. Right.

16 Q. -- does that produce commercial gas from this  
17 horizon?

18 A. No, that well was just drilled earlier this  
19 year, and that -- The Montoya formation was wet in that  
20 well.

21 Q. Okay, and then the last well, the well to the  
22 west of your unit in Section 31?

23 A. Okay, that is the San Andres Oil Well that  
24 Yates completed about a year ago, I think, or so.

25 Q. What would be the spacing for production at

1 this depth within the unit area?

2 A. Okay, 320 acres.

3 Q. Okay. Let's now look, sir, at Exhibit  
4 Number 4. Is this also a cross-section that you  
5 prepared?

6 A. Yes, it is.

7 Q. What does this cross-section show you?

8 A. Okay, this cross-section is comprised of the  
9 same three wells. It's just on -- It's a stratigraphic  
10 cross-section, as opposed to a structural cross-section  
11 which Exhibit 3 is.

12 And basically the reason why I made it is  
13 just to show the thickening of the Mississippian Lime  
14 section, which is colored in orange on there. You see  
15 on the two wells on the right side of the cross-  
16 section, they have about 40 or 50 feet of Mississippian  
17 And the well on the left has approximate 100 feet.

18 And for exploring for Montoya in this area of  
19 the county and stuff, I use a thickening or thinning of  
20 the Mississippian as a method to find the prospects and  
21 stuff. And where the Mississippian is thin, that's  
22 generally where you find a higher structural feature  
23 and stuff.

24 The fact that we have so much Mississippian  
25 in the Dragonfly Well tells me that there's a fault

1 between that well and the Sun Well. And that's  
2 basically -- We have a seismic confirmation of that as  
3 well, so we have supporting data.

4 Q. When we look to Section 17 and 18 to the  
5 south of the unit, why are not portions of those  
6 sections included in your exploratory unit?

7 A. Okay, we feel that those are -- will be  
8 structurally lower to our -- to where we believe that  
9 the gas accumulation will be, and we do have one  
10 seismic line that goes along the north section line of  
11 Section 16, 17 and 18, and that's the line that we  
12 bought from Texaco. And we reprocessed it, but it is  
13 real poor data and it's relatively unreliable.

14 So the structure that we have shown down in  
15 that area is not reliable at this -- or completely  
16 reliable right now.

17 Q. In your opinion, is it more effective and  
18 efficient to develop this prospect on a unit basis as  
19 -- rather than on an individual spacing-unit by  
20 spacing-unit basis as the wells are drilled?

21 A. Yes, sir, I do.

22 MR. KELLAHIN: Thank you. That concludes my  
23 examination of Mr. Morris, Mr. Stogner. We would move  
24 the introduction of his Exhibits 1 through 4.

25 EXAMINER STOGNER: Exhibits 1 through 4 will

1 be admitted into evidence.

2 EXAMINATION

3 BY MR. STOGNER:

4 Q. Mr. Morris, whenever I look at your proposed  
5 unit there, I show three other dry wells or dry-hole  
6 markings on three wells in Sections 7 and 8. Do those  
7 penetrate the Mississippian -- or, I'm sorry, the  
8 Montoya Formation also?

9 A. No, sir, they did not.

10 I believe there are only four wells on the  
11 map that penetrated that section. I can locate them  
12 for you if you would like.

13 Q. Let's see, other than the three which are on  
14 your cross-section, there's one more?

15 A. Yeah, the one down in Section 16 in the  
16 right-hand corner.

17 Q. The far right-hand corner in Unit P?

18 A. Right.

19 Q. Did that ever produce, or was that a dry  
20 hole?

21 A. I think it produced from the San Andres.

22 Q. Okay. A little bit more about the Sun Well.  
23 That was drilled in 1987; is that correct?

24 A. That's correct.

25 Q. Now, did it have any production from any

1 zones?

2 A. No, sir, it did not.

3 Q. Was there a drill-stem test done in the  
4 Montoya Formation on that well?

5 A. Yes, sir, there are two drill-stem tests done  
6 in the Montoya Formation. The first test was in about  
7 the upper 30 or 40 feet, and that test was basically  
8 tight. There was another drill-stem test lower in the  
9 section, and that produced like 5000 feet of formation  
10 water.

11 So based on the log analysis I did on that  
12 well and doing some comparisons with the production we  
13 had to the south of there, I felt like that well could  
14 have had 40 or 50 feet of gas column that was never  
15 produced out of there.

16 Their first drill-stem test did recover a  
17 small amount of gas. They had some plugging on the  
18 tested well. So I don't think that they had --  
19 necessarily had a valid test.

20 Q. Some plugging on the test, I'm sorry?

21 A. Some of the formation rocks or chips were  
22 going into the wellbore.

23 Q. Oh, plugging up the holes, okay.

24 A. Yes.

25 Q. I see.

1 A. Right.

2 Q. Did it test any other zones higher up, such  
3 as the Penn?

4 A. I'm not sure if they did or not. I know they  
5 ran another test that failed. I don't know if they ran  
6 a shallower test or not.

7 Q. And on Exhibit Number 2 there are several  
8 shot lines --

9 A. Right.

10 Q. And when were those run?

11 A. Okay, the Tuna/Sunfish Line that kind of  
12 angles down through there --

13 Q. That is the one going from the northeast to  
14 the southwest?

15 A. Right. We shot that in January of this year.  
16 The line that goes through Sections 4, 5 and 6, that's  
17 another proprietary line that we shot -- I want to say  
18 about four years ago, 1987 or 1986.

19 Q. Now, was that BHP who did that or --

20 A. Yeah, its predecessor, Monsanto.

21 Q. Monsanto? Okay.

22 A. The other line that goes through Section 29  
23 and down through 32 and 8 and 16, that north-south  
24 line, that's another line that we shot as Monsanto, and  
25 it was shot about the same time, probably 1986 or 1987.

1           The other line, through Section 33, 32 and  
2           31, that's a line that Sun shot -- That was probably  
3           shot in 1985. We've reprocessed that data, and it fits  
4           real well with the proprietary data that we shot.

5           Q.    Now, how about that Ervin Ranch Line 2, the  
6           one in 7 and 18?

7           A.    Okay, that line continues -- If you look on  
8           the land plat, the other map, Exhibit 1 --

9           Q.    Yes.

10          A.    That's the tail end of a line that cuts  
11          through the acreage that we show to the south there,  
12          okay?

13          Q.    Okay.

14          A.    And we drilled some successful wells down  
15          there. We have three producing gas wells out of this  
16          formation.

17          Q.    Was that a BHP or a Monsanto line?

18          A.    Right, that was a Monsanto line.

19                EXAMINER STOGNER: I have no further  
20          questions of Mr. Morris. Are there any other questions  
21          of this witness?

22                MR. KELLAHIN: No, sir.

23                EXAMINER STOGNER: If not, he may be excused.  
24          Mr. Kellahin?

25                MR. KELLAHIN: Mr. Examiner, at this time we

1 would call Mr. Dwight Pickle. Mr. Pickle is a  
2 petroleum landman with BHP Petroleum Company.

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

6 EXAMINATION

7 BY MR. KELLAHIN:

8 Q. Mr. Pickle, for the record would you please  
9 state your name and occupation?

10 A. My name is Dwight Pickle. I'm a senior  
11 landman with BHP Petroleum.

12 Q. Have you on prior occasions testified as a  
13 petroleum landman?

14 A. Yes, I have.

15 Q. And have you testified before the Oil  
16 Conservation Division of New Mexico?

17 A. No, I have not.

18 Q. Would you summarize for us your educational  
19 and employment background?

20 A. I've had over 10 years of experience as a  
21 petroleum landman. I've had an additional 200 hours of  
22 continuing education courses. I've been involved in  
23 the oil and gas business for almost over 11 years.

24 Q. How long have you been employed by your  
25 company in this particular position?

1           A.    About four months.

2           Q.    The area involved here in Chaves County, New  
3 Mexico, designated as the Sunfish State Unit Area, what  
4 has been your involvement with regards to that unit?

5           A.    Well, my assignment was to, after being  
6 provided with the geological outline, to review the  
7 leasehold acreage within the proposed unit area.

8                   I reviewed the acreage.  It consisted of  
9 about 98.246 percent state lands, with the remaining  
10 acreage being a small-fee tract of 39.21 acres.

11                   We then had a pre-approval meeting with the  
12 State Land Office, proposing the formation of a state  
13 exploratory unit.  We -- I then prepared a unit  
14 agreement with the attached Exhibits A and B.  We  
15 applied for an OCD hearing, we notified all the  
16 interested parties, we requested preliminary approval  
17 and we was granted preliminary approval on April 16th.

18                   MR. KELLAHIN:  At this time, Mr. Examiner, I  
19 tender Mr. Pickle as an expert petroleum landman.

20                   EXAMINER STOGNER:  Mr. Pickle is so  
21 qualified.

22           Q.    (By Mr. Kellahin)  Mr. Pickle, let's refer to  
23 Exhibit Number 5, which is the Unit Agreement.

24           A.    Okay.

25           Q.    Is this the document to which you've just

1 referred that you caused to be prepared?

2 A. Yes.

3 Q. And does it conform to the requirements of  
4 the Commission of Public Land, State of New Mexico, as  
5 to the content?

6 A. Yes, it does.

7 Q. And have you obtained preliminary approval  
8 from his office?

9 A. Yes, we have, as of April 16th of this year.

10 Q. Let's turn to the attachments to the Unit  
11 Agreement, first of all Exhibit Number A -- Letter A.

12 Concerning the working-interest ownership  
13 that's shown by those various tracts, what is the  
14 status of your efforts to get voluntary participation  
15 by all the working-interest owners?

16 A. Well, BHP is presently the working -- holds  
17 the working-interest ownership, and -- Well, 98.246  
18 percent of the acreage, which is all the state acreage.  
19 The Yates Petroleum, et al., owns the fee interest,  
20 which is shown as Tract Number 7 in the southwest of  
21 southwest of Section 7.

22 We have contacted Yates about joining the  
23 unit, and we foresee them joining -- We will be sending  
24 out ratification enjoiners within the next week.

25 Q. All right. So the fee tract involved is the

1 one that Yates controls, that 40 acres?

2 A. That's correct.

3 Q. And you're in discussions with them about  
4 their participation?

5 A. That's correct.

6 Q. And has that acreage been approved by the  
7 Commissioner of Public Lands for inclusion with its  
8 acreage for this unit?

9 A. That's correct.

10 Q. Exhibit B to the Unit Agreement is what, sir?

11 A. Exhibit B is a breakdown of the leases that  
12 are involved or within the unit outline, giving the  
13 tract description, the total acres within that tract,  
14 the serial number, the royalty, the lessee of record,  
15 the overriding royalty and the working-interest owner.

16 Q. Will you also have an operating agreement in  
17 the event Yates decides to participate?

18 A. Yes, we have, and we have completed that  
19 agree- -- that contract. We will be sending it to them  
20 probably, in the next day or so.

21 Q. And it will designate BHP as the operator?

22 A. As operator.

23 Q. Okay. Let me have you turn now to Exhibit  
24 Number 6, Mr. Pickle. Would you identify and describe  
25 what Exhibit Number 6 is?

1           A.    Exhibit Number 6 is the letter from the State  
2 Land -- Commissioner of Public Lands, granting  
3 preliminary approval for the formation of the Sunfish  
4 State Unit.

5           Q.    Okay. The method of participation is simply  
6 an acreage participation in the unit?

7           A.    That's correct.

8           Q.    And with the exception, then, of the final  
9 signature by all the parties of the documents and  
10 approval by the Oil Conservation Division, all other  
11 agencies have approved your Application?

12          A.    That's correct.

13               MR. KELLAHIN: That concludes my examination,  
14 Mr. Pickle.

15               Mr. Stogner, we would move the introduction  
16 of Exhibits 5 and 6.

17               EXAMINER STOGNER: Exhibits 5 and 6 will be  
18 admitted into evidence at this time.

19               Mr. Kellahin, do plan to present notice  
20 requirements after this witness?

21               MR. KELLAHIN: I can do it now, Mr. Examiner.  
22 The notices were sent, a copy of our certificate is  
23 attached as Exhibit Number 7. We would request the  
24 admission of the Certificate of Notice.

25               EXAMINER STOGNER: Exhibit 7 will be admitted

1 into evidence at this time.

2 EXAMINATION

3 BY MR. STOGNER:

4 Q. Mr. Pickle, on Exhibit B -- or I'm sorry,  
5 part B of Exhibit 5, who is the royalty ownership of  
6 that fee acreage?

7 A. Okay, fee ownership is owned by a Mr. Malcolm  
8 C. Harral and his wife, and -- Let's see. And a  
9 portion of the lease is also owned by Martha Rice.

10 We have two leases covering that 40 acres, or  
11 39.21 acres.

12 Q. On the notice requirements, I see that Martha  
13 Rice was notified. How about the Malcolm Harral?

14 A. The Malcolm Harral, we were just notified by  
15 Yates that that party was a -- that their lease did  
16 cover part of her interest, or his interest. We  
17 received a copy of the lease, in fact, on Tuesday.

18 Q. Okay, I guess I am a little bit confused  
19 here. The royalty is split between the Harral and Rice  
20 parties; is that correct?

21 A. That's correct, that's correct.

22 Q. But the Harral party has been leased to  
23 Yates?

24 A. Right. We were originally notified that  
25 Martha Rice's lease was the only lease covering the

1 39.21 acres, covering that Tract 7, I believe it is on  
2 the map. And we were just notified as of I think  
3 Tuesday or Monday of this week that there was another  
4 lease, there was split ownership of that mineral  
5 acreage.

6 Q. And the Harral interest is essentially  
7 operated by Yates --

8 A. That's correct.

9 Q. -- is that what you're telling me?

10 A. That's correct.

11 Q. Okay.

12 A. We believe the Harral interest possibly is --  
13 may be family members of the Martha Rice.

14 EXAMINER STOGNER: Mr. Kellahin, do you have  
15 any comments on notification of the Harral party?

16 MR. KELLAHIN: Let me clarify one point --

17 EXAMINER STOGNER: Yes.

18 MR. KELLAHIN: -- Mr. Stogner.

19 FURTHER EXAMINATION

20 BY MR. KELLAHIN:

21 Q. (By Mr. Kellahin) Are you certain now that  
22 the entire working interest for Tract 7 is held by  
23 Yates Petroleum Corporation and the other Yates  
24 entities?

25 A. That's correct, that's correct.

1 Q. So there are no mineral owners that are  
2 unleased for that tract?

3 A. That's correct.

4 Q. And what you have is some lessor -- at least  
5 one lessor that didn't get notice of this particular  
6 process?

7 A. That's correct, and we --

8 Q. But that lessor's lessee is Yates, and they  
9 were notified?

10 A. That's correct.

11 MR. KELLAHIN: Mr. Examiner, I see no defect  
12 in the notice, because this would be a voluntary  
13 exploratory unit where the interest of the royalty  
14 owners by contract, separate and apart from Division  
15 action, would be committed by the lessee Yates to the  
16 unit.

17 If they won't commit, then we'll have to  
18 leave them out of the unit, and their royalty interests  
19 are controlled by the action of Yates. So unlike  
20 force-pooling or statutory unitization, the notice to  
21 the lessor in this instance is an additional notice  
22 that's not mandated by the notice rules. I think we've  
23 satisfied the requirements by simply sending the  
24 notices to Yates.

25 EXAMINER STOGNER: Thank you, Mr. Kellahin.

1 So noted.

2 FURTHER EXAMINATION

3 BY EXAMINER STOGNER:

4 Q. I notice that Fina Oil and Chemical Company  
5 was notified. What is their interest in this  
6 particular matter?

7 A. Fina originally was the -- a working-interest  
8 owner of a lease covering the east half of Section 8,  
9 and they have assigned their interest to BHP.

10 They now only have -- At the time of the  
11 notice, they were still the working-interest owner, but  
12 now they have assigned that interest to BHP and retain  
13 an override.

14 EXAMINER STOGNER: I have no other questions  
15 of Mr. Pickle.

16 Are there any other questions for this  
17 witness?

18 MR. KELLAHIN: That concludes our  
19 presentation, Mr. Examiner.

20 EXAMINER STOGNER: Does anybody else have  
21 anything further in Case Number 9908?

22 If not, this case will be taken under  
23 advisement.

24 (Thereupon, these proceedings were concluded  
25 at 8:48 a.m.)

