

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

25 June 1986

EXAMINER HEARING

IN THE MATTER OF:

Application of BHP Petroleum Company, Inc. for an unorthodox oil well location, Lea County, New Mexico. CASE 8927

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Jeff Taylor  
Attorney at Law  
Legal Counsel to the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87501

For BHP Petroleum: W. Thomas Kellahin  
Attorney at Law  
KELLAHIN & KELLAHIN  
P. O. Box 2265  
Santa Fe, New Mexico 87501

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

## I N D E X

WILLIAM J. MORRIS

Direct Examination by Mr. Kellahin	4
Cross Examination by Mr. Stogner	20

## E X H I B I T S

BHP Exhibit One, Plat	5
BHP Exhibit Two, Map	6
BHP Exhibit Three, Certificate, etc.	9

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

MR. STOGNER: Call next Case 8927, which is the application of BHP Petroleum Company, Incorporated, for an unorthodox oil well location, Lea County, New Mexico.

We will now call for appearances.

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin, appearing on behalf of the applicant, and I have one witness to be sworn.

MR. STOGNER: Are there any other appearances in this matter?

Will the witness please stand and raise your right hand?

(Witness sworn.)

MR. STOGNER: Mr. Kellahin.

WILLIAM J. MORRIS,  
being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

## DIRECT EXAMINATION

1  
2 BY MR. KELLAHIN:

3 Q Mr. Morris, for the record would you  
4 please state your name and occupation?

5 A My name is William J. Morris. I'm a  
6 petroleum geologist for BHP Petroleum Company.

7 Q Mr. Morris, have you previously testified  
8 before the Division as a geologist?

9 A Yes, sir, I have.

10 Q And pursuant to your employment have you  
11 made a study of the geology concerning this application  
12 before the Division today?

13 A Yes, sir, I have.

14 MR. KELLAHIN: We tender Mr.  
15 Morris as an expert petroleum geologist.

16 MR. STOGNER: Mr. Morris is so  
17 qualified.

18 MR. KELLAHIN: Mr. Examiner,  
19 BHP Petroleum Company represents a name change. It was for-  
20 merly Monsanto, and you may --

21 MR. STOGNER: Spell Monsanto.

22 MR. KELLAHIN: M-O-N-S-A-N-T-O.

23 MR. STOGNER: Because there's a  
24 Monsanto and Manzonto (sic) if I remember right.

25 MR. KELLAHIN: Well, this is

1 Monsanto.

2 MR. STOGNER: Monsanto, okay.

3 MR. KELLAHIN: All right.

4 Q Mr. Morris, let me direct your attention  
5 first of all to Exhibit Number One and have you identify  
6 that for me.

7 A Exhibit Number One is a land plat that  
8 covers the Northeast Lowington Pool in the Lea County area.

9 Q What is the significance of the yellow  
10 shaded area on the exhibit?

11 A That is acreage that is under lease by  
12 BHP Petroleum Company.

13 Q And what's the significance of the red  
14 arrow locating the well in the northeast quarter of Section  
15 10?

16 A That is the unorthodox location that we  
17 are seeking approval on today.

18 Q You propose to drill a well at an unor-  
19 thodox location in the Northeast Lovington Penn Pool?

20 A That is correct.

21 Q And what is the spacing for that pool?

22 A The field rules require that an operator  
23 drill a well within 150 feet of the center point of a quar-  
24 ter quarter section.

25 Q All right, and how many acres do you have

1 to dedicate to a well in this pool?

2 A It's 80-acre spacing.

3 Q And what acreage will be dedicated to  
4 this well?

5 A It will be the north half of the north-  
6 east quarter.

7 Q Okay. Let's turn to Exhibit Number Two  
8 and ask you to identify this exhibit.

9 A This is a structure map on top of the  
10 Strawn formation, which is the producing horizon in the  
11 Northeast Lovington Penn Pool.

12 Q And again the significance of the yellow  
13 acreage?

14 A That is BHP Petroleum Company acreage.

15 Q And the location of the well indicated by  
16 the red arrow?

17 A That is the unorthodox location.

18 Q And you've also outlined for us the 80-  
19 acre proration unit?

20 A That is right. That is shown in pencil.

21 Q And the pool rules for this pool require  
22 that a well at a standard location be within 150 feet of the  
23 center of a 40-acre tract?

24 A That is correct. That is shown just to  
25 the northeast of the unorthodox proposed location in pencil.

1 Q All right, you have a penciled circle in  
2 the approximate center of that 40-acre tract --

3 A Right.

4 Q And that would be the standard location.

5 A Right, anywhere within that circle would  
6 be an acceptable legal location.

7 Q And you're proposing to move to an unor-  
8 thodox location somewhat to the south and west?

9 A That is correct.

10 Q And towards what operator's acreage are  
11 you moving?

12 A To no --

13 Q To no other operator?

14 A To no other operator; just our own ac-  
15 reage.

16 Q All right. Describe for the Examiner the  
17 significance of the four red lines that intersect across the  
18 exhibit.

19 A Those are proprietary seismic data that  
20 BHP Petroleum Company has within this area.

21 Q Is seismic a commonly used technique by  
22 operators in this area to locate the Strawn production?

23 A Yes, it is.

24 Q Can you identify what other geologic  
25 data, other than the seismic information, you have utilized

1 in order to draw the Strawn structure map?

2 A Okay. I used all the well control within  
3 the area and the top of the Strawn formation subsea value is  
4 shown under each well.

5 Q And what have you interpreted with re-  
6 gards to the Strawn structure as it applies to this well lo-  
7 cation in Section 10?

8 A Okay, we have interpreted, based on the  
9 seismic and well control in this area, a small structural  
10 feature that the proposed location would anticipate encoun-  
11 tering the highest part of that structure.

12 Q Do you see the other wells in the area  
13 being identified in terms of other structural features in  
14 the Strawn?

15 A Yes, we do.

16 Q Can you draw an example or a correlation  
17 between your location and other Strawn structures?

18 A In Section 9 and 10 we have seismic data  
19 that goes through two producing wells and we need to -- we  
20 feel like we need to stay with -- on these seismic data to  
21 make a similar type of well that these wells have made.

22 Q Within the structure that you've identi-  
23 fied for the proposed location, can you give us your opinion  
24 and reasons why the proposed unorthodox location is better  
25 than the closest standard location?

1           A           Okay, based on largely on the seismic  
2 data, we believe the proposed location to be structurally  
3 the highest point and the seismic data matches that of the  
4 two Amerada wells, one in Section 9 and one in Section 10.  
5 We believe our location to be the best potential location  
6 that we have on our tract.

7           Q           And it is a location that falls on strike  
8 with one of the seismic lines?

9           A           Yes, it falls directly on the  
10 northeast/southwest seismic line.

11          Q           And have you satisfied yourself that the  
12 seismic information that was provided to you is reasonably  
13 accurate in terms of its match with existing geologic  
14 information that you have?

15          A           Yes, sir, I am.

16          Q           And what conclusion do you reach?

17          A           I reach the conclusion that the proposed  
18 location is the best location that we have to produce the  
19 best well in this 80-acre proration unit.

20                       MR. KELLAHIN: Mr. Examiner,  
21 Exhibit Number Three is my certificate about notification to  
22 the offset operators. It shows a list of the names and  
23 addresses of those operators and copies of the return  
24 receipt cards that we've received back.

25                       That concludes my examination

1 of Mr. Morris.

2 We move the introduction at  
3 this time of Exhibits One, Two, and Three.

4 MR. STOGNER: Mr. Kellahin, Ex-  
5 hibit Number Three is the certificate of mailing --

6 MR. KELLAHIN: Yes, sir.

7 MR. STOGNER: -- and the whole  
8 packet?

9 MR. KELLAHIN: Yes, sir, we  
10 have marked one set (not clearly understood).

11 MR. STOGNER: Exhibits One,  
12 Two, and Three will entered into evidence.

13

14 CROSS EXAMINATION

15 BY MR. STOGNER:

16 Q Mr. Morris, referring to Exhibit Number  
17 Two, this contour line is based mostly upon your seismic or  
18 --

19 A It's based both on seismic and well con-  
20 trol.

21 Q Okay. Now I see a large circle that's on  
22 the middle of the line that's under number ten toward the  
23 left of the number. What is that?

24 A Oh, yeah, that's the standard location.

25 Q Okay. The standard location is 150 feet

1 in any quarter quarter, right?

2 A Yeah, right. That is the closest legal  
3 location.

4 Q Refer to Exhibit Number One. The north  
5 -- the northeast quarter of Section 10, is that all one sin-  
6 gle lease?

7 A Yes, sir, it is, and I believe those  
8 other 40-acre section -- or 40-acre tracts scattered  
9 throughout the northern part of the township are also part  
10 of this same lease.

11 Q Okay. Now the northwest quarter, that  
12 shows a state lease, is that right?

13 A That is correct.

14 Q And that's another separate lease alto-  
15 gether.

16 A Right, that's correct.

17 Q And the interest owners in the north --  
18 north half of that northeast quarter, are they the same as  
19 in the south half of the northeast quarter or --

20 A Well, the northeast quarter is a govern-  
21 ment, Federal tract, and the northwest quarter is a State  
22 tract.

23 Q Okay, let's just talk about the northeast  
24 quarter. The north half -- are the interest owners in the  
25 north half the same as in the south half?

1 MR. KELLAHIN: Within that  
2 quarter section?

3 Q Within that quarter section, yes.

4 A Yes, yes, sir.

5 Q Okay. I'm somewhat confused. Why was  
6 Inexco notified?

7 A They have an interest in Section 11. You  
8 can see it on the land plat if you look about halfway down.

9 Q So that's J. D. Williamson and Mesa and  
10 Inexco --

11 A Right.

12 Q And they consist of all the F. M. Cox, et  
13 al?

14 A I believe he is the landowner, the sur-  
15 face owner.

16 MR. STOGNER: All right, I have  
17 no further questions of Mr. Morris.

18 Are there other questions of  
19 this witness?

20 If not, he may be excused.

21 Anything further in Case 8927.

22 MR. KELLAHIN: No, sir.

23 MR. STOGNER: Does anybody else  
24 have anything further?

25 If not, this case will be taken  
under advisement.

(Hearing concluded.)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

C E R T I F I C A T E

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. 8927 heard by me on 25 June 1986.

Michael P. Meyer, Examiner  
Oil Conservation Division