

CASE 6730: PETROLEUM DEVELOPMENT CORPO-  
RATION TO LIMIT 640-ACRE SPACING, EDDY  
AND LEA COUNTIES, NEW MEXICO

Case No.

6730

Application

Transcripts.

Small Exhibits

ETC.

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO  
14 November 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Petroleum Development ) CASE  
Corporation to limit 640-acre spacing, ) 6730  
Eddy and Lea Counties, New Mexico. )

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.  
Legal Counsel for the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87503

For the Applicant: Brian T. McCabe, Esq.  
KEGEL & McCULLOUGH  
Paseo de Peralta  
Santa Fe, New Mexico 87501

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I N D E X

CHARLES W. SANDERS

Direct Examination by Mr. McCabe 3

Cross Examination by Mr. Nutter 8

E X H I B I T S

Applicant Exhibit A, Tabulation 4

Applicant Exhibit B, Cross Section 5

Applicant Exhibit C, Cross Section 6

Applicant Exhibit D, Map 4

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MR. NUTTER: Call next Case Number 6730.

MR. PADILLA: Application of Petroleum Development Corporation to limit 640-acre spacing, Eddy and Lea Counties, New Mexico.

MR. McCABE: Brian McCabe of the law firm of Kegel and McCullough, P. A., of Santa Fe, and we have one witness.

(Witness sworn.)

CHARLES W. SANDERS

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

DIRECT EXAMINATION

BY MR. McCABE:

Q Could you state your name and profession, please?

A My name is Charles W. Sanders. I'm Vice President of Petroleum Development Corporation, Albuquerque.

Q Have you testified before the Division before and are your qualifications a matter of record?

A Yes, they are.

MR. McCABE: Will you accept Mr. Sanders?

MR. NUTTER: Yes, Mr. Sanders is qualified.

1 Q Mr. Sanders, are you familiar with the  
2 application in Case Number 6730?

3 A Yes.

4 Q Will you please describe it? Explain it?

5 A We are requesting an order, or an amendment  
6 to the order, of the Lusk-Morrow Gas Pool, which will limit  
7 the applicability of the 640-acre spacing and well location  
8 rules for the pool to the present boundaries of the pool so  
9 that wells drilled nearby but outside the pool would be  
10 governed by Rule 104 of the Division's rules.

11 Q Referring to the exhibits a bit out of  
12 order, could you explain Exhibit D, please?

13 A Exhibit D is a map of the area surrounding  
14 the Lusk-Morrow Gas Pool. The wells circled red are those  
15 wells that are referred to in Exhibit A.

16 Q Well, referring to Exhibit A, would you  
17 explain that, please?

18 A Exhibit A is a tabulation of wells in the  
19 field and in the area of the field for which electric logs  
20 were available. Dry holes, near dry holes, and recent wells  
21 are not included in this tabulation.

22 The purpose of the tabulation is to show  
23 or demonstrate the erratic and mostly low acreage drainage  
24 of Morrow gas wells in the area.

25 Q Okay, referring to Exhibit B -- excuse me,

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1 did you have --

2 A Well, we might go ahead and explain a  
3 little bit more about Exhibit A without going into a lot of  
4 detail because of our time.

5 The next to the last column shows the cal-  
6 culated ultimate production from each of these wells. This  
7 is calculated on the basis of decline curves that we have  
8 plotted individually for the wells, and based on a study of  
9 the electric logs available, which shows the proposity of  
10 the pay sections.

11 You'll notice that six of the nine wells  
12 have an indicated drainage area of less than 100 acres.  
13 Only three of the wells show drainages of 320 acres or near  
14 that figure.

15 Q Referring to Exhibit B, would you explain  
16 that, please?

17 A Exhibit B is a cross section showing two  
18 wells. The one on the right was Petroleum Development Cor-  
19 poration's Superior "C" State No. 1, located in the south  
20 half of Section 16, Township 19 South, Range 32 East. The  
21 well on the left is the offset well to the north, Amoco's  
22 "DR" Federal No. 1, which was drilled two years after the  
23 Petroleum Development well.

24 We had attempted to farmout the acreage  
25 to the north and Amoco thought that since they could legally

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1 drill so close to us they had a pretty sure cinch there, and  
2 we had a real good well. They offset us and every sand  
3 stringer that we produced from was dry in their well. They  
4 did, however, make a well in the Lower Morrow in a sand  
5 stringer which was not even developed in our well.

6 This demonstrates the extremely erratic  
7 nature of Morrow development in this immediate area.

8 Q Referring to Exhibit C, could you explain  
9 that, please?

10 A Exhibit C is a similar cross section.  
11 The well on the right is Petroleum Development Corporation's  
12 McKay Shell Federal No. 1 in the west half of Section 3,  
13 Township 19 South, Range 32 East. The well on the left is  
14 Gulf's Lansdale Federal No. 1 "D", in the east half of Sec-  
15 tion 4 of 19 South, 32 East. This is a direct offset, a  
16 direct west offset to the Petroleum Development well.

17 The Petroleum Development well was drilled  
18 in February of 1976 for an AOF of 1253 Mcf per day. It  
19 didn't have a particularly impressive electric log but we  
20 did make a good well; it's holding up good. The well has  
21 made about a billion and a half reserves so far; indicated  
22 ultimate about 5 billion cubic feet.

23 Gulf directly offset us to the west and  
24 had sand development and essentially the same zones, but  
25 their well potentialized 14,965 Mcf per day and had a bottom



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1 hold pressure of 5900 psi, which was in excess of our virgin  
2 pressure three years earlier of 5663. This would seem to  
3 indicate that, again, though we had the same zones present  
4 in both wells, that the lenticularity of the sands and the  
5 development of the sands is such that uniform communication  
6 does not exist between the sands over a very short distance.

7 MR. NUTTER: Now you said your bottom hole  
8 pressure was what?

9 A. 5663; it's at the bottom of the --

10 MR. NUTTER: Oh, yeah.

11 A. The AOF is at the bottom, also.

12 Q. Mr. Sanders, do you believe that the action  
13 contemplated by this application would adversely affect any  
14 of the holders of the correlative rights?

15 A. No, in view of the erratic nature of sand  
16 development in this area, I do not.

17 Q. Do you feel it would benefit them?

18 A. I believe the offset acreage could benefit  
19 strictly from the exploratory nature of the well which we  
20 plan to re-enter, although this is not that case. Excuse me  
21 for getting off on that.

22 Q. Mr. Sanders, do you believe the action con-  
23 templated by this application would promote conservation and  
24 efficiency of production?

25 A. I do. I believe it would result in more

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1 wells being drilled and more production of hydrocarbons,  
2 more tax revenues, more royalty revenues.

3 Q Were Exhibits A, B, C, and D prepared by  
4 you or under your direction?

5 A Yes.

6 MR. McCABE: We'd like to offer Exhibits  
7 marked A, B, C, and D.

8 MR. NUTTER: Applicant's Exhibits A through  
9 D will be admitted in evidence.

10 MR. McCABE: We have nothing further.

11  
12 CROSS EXAMINATION

13 BY MR. NUTTER:

14 Q Mr. Sanders, on your Exhibit B, you show  
15 the Amoco well and your well.

16 A Yes, sir.

17 Q Now, what did your well potential for?

18 A I didn't show that. Our well potentialed  
19 for about 10 million cubic feet. I believe it was 10 point  
20 I'm sorry, 10 million, I believe the figure was.

21 Q And what did their well potential for?

22 A I don't remember. It was in the neighbor-  
23 hood of 2 million.

24 Q Now you gave us some comparisons between  
25 these two wells. What were those comparisons you had?

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1 A The comparison was just strictly geological,  
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3 Q Just on the pay there --

4 A Yes, sir.

5 Q -- that are obvious on the logs.

6 A Uh-huh, development of the pay sand and that  
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8 they had a stringer in the Lower Morrow which we -- which we  
9 did not even have. This would seem to indicate that that  
10 particular section, at least, which was drilled on 320 acres,  
11 each spacing unit had to get exception to the field rules,  
12 and it did result in greater production.

13 Q Well now, you have included those two wells  
14 on your Exhibit A, and I notice that your well shows a net  
15 pay of 36 feet, whereas, their well shows only 13 feet.

16 A Right.

17 Q Your well has 10 percent porosity compared  
18 to 8 for theirs, and yet the reserves are almost the same,  
19 being 3 billion and 2.6 billion, but the big difference seems  
20 to be in the calculated area of drainage.

21 A Yes, sir, apparently --

22 Q How did you arrive at your drainage area?

23 A Just from the decline curve and projecting  
24 the ultimate production and cranking it into the formula for --

25 Q For a volumetric calculation?

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1 A. For a volumetric, yes, sir.

2 Q. Uh-huh, and then you took a pressure de-  
3 cline curve on the well and extracted out to ultimate recovery?

4 A. I had pressure decline on our wells. I  
5 did not have that information on the other wells. I used  
6 simply producing history.

7 Q. Have you come up with any figure for this  
8 area that would show what the average recovery per 320 acres  
9 is?

10 A. Oh, that's rough.

11 Q. The reason I ask, Mr. Sanders, is because  
12 on a change in spacing pattern, or an infill drilling program  
13 the FERC is now requiring that we come up with an estimate  
14 on what the additional recovery will be for the additional  
15 wells that are drilled.

16 A. I see.

17 Q. Now, you're asking that we change this  
18 spacing not inside the Lusk-Morrow Pool, but on the immediate  
19 boundaries of the pool where it's currently 640.

20 A. Yes, sir.

21 Q. You're asking us to change to 320, so we've  
22 got to have what is the advantage of going to 320, as far as  
23 recovery is concerned?

24 A. Based on our studies for wells which do make  
25 commercial wells, you should recover an additional 2 billion

1 cubic feet per 320.

2 Q Now we've got figures there estimated for  
3 your ultimate recoveries on your Exhibit A ranging from all  
4 the way from 130,000 Mcf up to 10 billion.

5 A Yes, sir.

6 Q Cubic feet. Of course, that 10 billion  
7 well is draining 950 acres.

8 A Yes.

9 Q But as you pointed out, six of these nine  
10 are draining less than 100 acres.

11 A Yes, sir, and I did not include the dry  
12 holes and near dry holes in the area, too.

13 Q These are producing wells.

14 A Yes, sir.

15 Q Commercial wells.

16 A Uh-huh.

17 Q But you estimate that a decent 320 would  
18 recover 2 billion cubic feet.

19 A Yes, right.

20 Q What will a decent 640 recover? 4 billion?

21 A No more unless -- unless you're one of the  
22 lucky few. There have been very few lucky people in the area.

23 Q Well, except for that one well, there's not  
24 a well shown here that would make -- well, yeah, you do have  
25 one 5 billion.

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1 A Yes, sir.

2 Q You don't have an idea of the additional  
3 gas to be gained by drilling these outlying sections on 320  
4 rather than 640?

5 A Yes, sir, I would estimate around 2 billion,  
6 assuming that you would get a decent producing section.

7 Q I see.

8 MR. NUTTER: Are there any further questions  
9 of Mr. Sanders? He may be excused.

10 Do you have anything further, Mr. McCabe?

11 MR. McCABE: No, sir.

12 MR. NUTTER: Does anyone have anything they  
13 wish to offer in Case Number 6730?

14 We'll take the case under advisement.

15

16 (Hearing concluded.)

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## REPORTER CERTIFICATE

I, SALLY W. BOYD, a Certified Shorthand Reporter,  
DO HEREBY CERTIFY that the foregoing and attached Transcript  
of Hearing before the Oil Conservation Division 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 from my notes taken at the time of the hearing.

Sally W. Boyd C.S.R.  
Sally W. Boyd, C.S.R.

SALLY WALTON BOYD  
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I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Exoneration hearing of Case No. 6730  
heard by me on 11/14 1979.  
[Signature], Examiner  
Oil Conservation Division

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO  
14 November 1979

EXAMINER HEARING

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Corporation to limit 640-acre spacing,  
Eddy and Lea Counties, New Mexico.

CASE  
6730

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

Ernest L. Padilla, Esq.  
Legal Counsel for the Division  
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For the Applicant:

Brian T. McCabe, Esq.  
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I N D E X

CHARLES W. SANDERS

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E X H I B I T S

Applicant Exhibit A, Tabulation	4
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Applicant Exhibit C, Cross Section	6
Applicant Exhibit D, Map	4

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MR. NUTTER: Call next Case Number 6730.

MR. PADILLA: Application of Petroleum Development Corporation to limit 640-acre spacing, Eddy and Lea Counties, New Mexico.

MR. McCABE: Brian McCabe of the law firm of Kegel and McCullough, P. A., of Santa Fe, and we have one witness.

(Witness sworn.)

CHARLES W. SANDERS

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

DIRECT EXAMINATION

BY MR. McCABE:

Q Could you state your name and profession, please?

A My name is Charles W. Sanders. I'm Vice President of Petroleum Development Corporation, Albuquerque.

Q Have you testified before the Division before and are your qualifications a matter of record?

A Yes, they are.

MR. McCABE: Will you accept Mr. Sanders?

MR. NUTTER: Yes, Mr. Sanders is qualified.

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1 Q Mr. Sanders, are you familiar with the  
2 application in Case Number 6730?  
3 A Yes.  
4 Q Will you please describe it? Explain it?  
5 A We are requesting an order, or an amendment  
6 to the order, of the Lusk-Morrow Gas Pool, which will limit  
7 the applicability of the 640-acre spacing and well location  
8 rules for the pool to the present boundaries of the pool so  
9 that wells drilled nearby but outside the pool would be  
10 governed by Rule 104 of the Division's rules.  
11 Q Referring to the exhibits a bit out of  
12 order, could you explain Exhibit D, please?  
13 A Exhibit D is a map of the area surrounding  
14 the Lusk-Morrow Gas Pool. The wells circled red are those  
15 wells that are referred to in Exhibit A.  
16 Q Well, referring to Exhibit A, would you  
17 explain that, please?  
18 A Exhibit A is a tabulation of wells in the  
19 field and in the area of the field for which electric logs  
20 were available. Dry holes, near dry holes, and recent wells  
21 are not included in this tabulation.  
22 The purpose of the tabulation is to show  
23 or demonstrate the erratic and mostly low acreage drainage  
24 of Morrow gas wells in the area.  
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1 did you have --

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3 little bit more about Exhibit A without going into a lot of  
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5 The next to the last column shows the cal-  
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20 half of Section 16, Township 19 South, Range 32 East. The  
21 well on the left is the offset well to the north, Amoco's  
22 "DR" Federal No. 1, which was drilled two years after the  
23 Petroleum Development well.

24 We had attempted to farmout the acreage  
25 to the north and Amoco thought that since they could legally

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1 drill so close to us they had a pretty sure cinch there, and  
2 we had a real good well. They offset us and every sand  
3 stringer that we produced from was dry in their well. They  
4 did, however, make a well in the Lower Morrow in a sand  
5 stringer which was not even developed in our well.

6 This demonstrates the extremely erratic  
7 nature of Morrow development in this immediate area.

8 Q Referring to Exhibit C, could you explain  
9 that, please?

10 A Exhibit C is a similar cross section.  
11 The well on the right is Petroleum Development Corporation's  
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17 The Petroleum Development well was drilled  
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2 pressure three years earlier of 5663. This would seem to  
3 indicate that, again, though we had the same zones present  
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1 wells being drilled and more production of hydrocarbons,  
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3 Q Were Exhibits A, B, C, and D prepared by  
4 you or under your direction?

5 A Yes.

6 MR. McCABE: We'd like to offer Exhibits  
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8 MR. NUTTER: Applicant's Exhibits A through  
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10 MR. McCABE: We have nothing further.

11  
12 CROSS EXAMINATION

13 BY MR. NUTTER:

14 Q Mr. Sanders, on your Exhibit B, you show  
15 the Amoco well and your well.

16 A Yes, sir.

17 Q Now, what did your well potential for?

18 A I didn't show that. Our well potential  
19 for about 10 million cubic feet. I believe it was 10 point  
20 I'm sorry, 10 million, I believe the figure was.

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24 Q Now you gave us some comparisons between  
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3 Q Just on the pay there --

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5 Q -- that are obvious on the logs.

6 A Uh-huh, development of the pay sand and that  
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24 the ultimate production and cranking it into the formula for --

25 Q For a volumetric calculation?



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18 spacing not inside the Lusk-Morrow Pool, but on the immediate

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23 recovery is concerned?

24 A Based on our studies for wells which do make

25 commercial wells, you should recover an additional 2 billion

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3030 Plaza Blanca (S96) 471-2462  
Santa Fe, New Mexico 87501

1 cubic feet per 320.

2 Q Now we've got figures there estimated for  
3 your ultimate recoveries on your Exhibit A ranging from all  
4 the way from 130,000 Mcf up to 10 billion.

5 A Yes, sir.

6 Q Cubic feet. Of course, that 10 billion  
7 well is draining 950 acres.

8 A Yes.

9 Q But as you pointed out, six of these nine  
10 are draining less than 100 acres.

11 A Yes, sir, and I did not include the dry  
12 holes and near dry holes in the area, too.

13 Q These are producing wells.

14 A Yes, sir.

15 Q Commercial wells.

16 A Uh-huh.

17 Q But you estimate that a decent 320 would  
18 recover 2 billion cubic feet.

19 A Yes, right.

20 Q What will a decent 640 recover? 4 billion?

21 A No more unless -- unless you're one of the  
22 lucky few. There have been very few lucky people in the area.

23 Q Well, except for that one well, there's not  
24 a well shown here that would make -- well, yeah, you do have  
25 one 5 billion.

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
2020 Plaza Blanca (505) 471-2462  
Santa Fe, New Mexico 87501

1 A Yes, sir.

2 Q You don't have an idea of the additional

3 gas to be gained by drilling these outlying sections on 320

4 rather than 6407

5 A Yes, sir, I would estimate around 2 billion,

6 assuming that you would get a decent producing section.

7 Q I see.

8 MR. NUTTER: Are there any further questions

9 of Mr. Sanders? He may be excused.

10 Do you have anything further, Mr. McCabe?

11 MR. McCABE: No, sir.

12 MR. NUTTER: Does anyone have anything they

13 wish to offer in Case Number 6730?

14 We'll take the case under advisement.

15

16 (Hearing concluded.)

17

18

19

20

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24

25

## REPORTER CERTIFICATE

I, SALLY W. BOYD, a Certified Shorthand Reporter,  
DO HEREBY CERTIFY that the foregoing and attached Transcript  
of Hearing before the Oil Conservation Division 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 from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is  
a complete and correct record of the proceedings in  
the Examination of Case No. 6730,  
heard by me on 11/14 1979.  
 Examiner  
Oil Conservation Division

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3020 Plaza Blanca (696) 471-2462  
Santa Fe, New Mexico 87501



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December 5, 1979

Mr. Brian McCabe  
Kegel & McCulloh  
Attorneys at Law  
1231 Paseo De Peralta  
Santa Fe, New Mexico

Re: CASE NO. 6730  
ORDER NO. R-6197

**Applicant:**

**Petroleum Development Corporation**

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY  
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD	<u>X</u>
Artesia OCD	<u>X</u>
Aztec OCD	

Other

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 6730  
Order No. R-6197

APPLICATION OF PETROLEUM DEVELOPMENT  
CORPORATION TO LIMIT 640-ACRE SPACING,  
EDDY AND LEA COUNTIES, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 14, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 28th day of November, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That by Order No. R-2373, dated November 21, 1962, the Division created the Lusk-Morrow Gas Pool and promulgated special rules therefor, including a provision for 640-acre spacing and proration units, and said rules were made permanent by Order No. R-2373-B, dated May 19, 1965.

(3) That said rules were made applicable to wells completed or recompleted in the Lusk-Morrow Gas Pool or in the Morrow formation within one mile of said pool and not nearer to nor within the limits of another designated pool.

(4) That the applicant in this case, Petroleum Development Corporation, seeks the amendment of the special rules for the Lusk-Morrow Gas Pool to cause said rules to be applicable only to those wells completed or recompleted within the boundaries of said pool, and not to wells completed or recompleted outside such boundaries but within one mile thereof.

-2-

Case No. 6730  
Order No. R-6197

(5) That the Lusk-Morrow Gas Pool, as presently defined by the Division, comprises the following described area:

EDDY COUNTY  
TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM  
Sections 24 and 25: All

LEA COUNTY  
TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM  
Sections 9 and 10: All  
Sections 15 and 16: All  
Sections 18 through 21: All  
Sections 27 through 30: All  
Section 32: All

(6) That no operator in the Lusk-Morrow Gas Pool nor within one mile thereof objected to applicant's proposal.

(7) That the limitation of the applicability of the special rules for the subject pool to said pool's boundaries as they currently exist will not impair correlative rights nor cause waste, but indeed may prevent waste by permitting the drilling for and production of gas which might otherwise remain unrecovered, and should be approved.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations for the Lusk-Morrow Gas Pool, Eddy and Lea Counties, New Mexico, as promulgated by Division Order No. R-2373 dated November 21, 1962, and made permanent by Order No. R-2373-B, dated May 19, 1965, are hereby limited to the following described area:

EDDY COUNTY  
TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM  
Sections 24 and 25: All

LEA COUNTY  
TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM  
Sections 9 and 10: All  
Sections 15 and 16: All  
Sections 18 through 21: All  
Sections 27 through 30: All  
Section 32: All

-3-

Case No. 6730  
Order No. R-6197

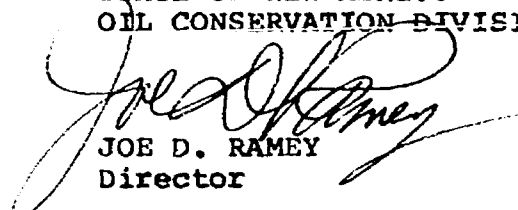
(2) That Rule 1 of said Special Rules and Regulations is hereby amended to read in its entirety as follows:


"RULE 1. Each well completed or recompleted in the Lusk-Morrow Gas Pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth."

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

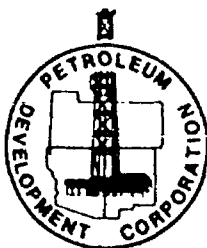
STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
JOE D. RAMEY  
Director

  
S E A L

fd/





# PETROLEUM DEVELOPMENT CORPORATION

9720-B CANDELARIA, NE  
ALBUQUERQUE, NEW MEXICO 87112  
TELEPHONE (505) 293-4044

CASE NO. 6730

DOCKET No. 42-79, November 14, 1979

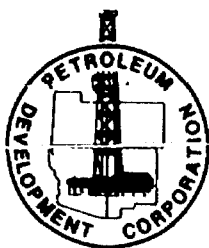
## EXHIBIT "A"

Following is a tabulation of wells in and adjacent to the Lusk-Morrow Gas Pool for which electric logs were available. Dry holes and near-dry holes and recent wells are not included. The purpose is to demonstrate the erratic and mostly low-acreage drainage of Morrow gas wells in the area.

<u>Well Location</u>	<u>Cum. Prod., MCF to 1-1-79</u>	<u>Net Pay Feet</u>	<u>Average Poro. %</u>	<u>Calc. Ult. Prod.-MCF</u>	<u>Calc. Drainage Acres</u>
H-29-19-32	505,631	14	6.0	510,000	72
J-19-19-32	8,558,064	16	8.0	10,300,000	950 ✓
G-20-19-32	337,281	14	9.0	338,000	32
K-18-19-32	128,378	28	6.5	130,000	8
J-9-19-32	293,295	21	10.3	850,000	47
— K-16-19-32	1,830,169	36 ✓	10.0 ✓	3,000,000	98
— F-16-19-32	837,060	13 ✓	8.0 ✓	2,600,000	295
N-34-18-32	644,726	21	8.9	1,100,000	70
L-3-19-32	1,335,184	33	7.2	5,000,000	248 -

*6 of 9 drain less than 100 acres*

DEPOSE EXHIBIT FOR MUTTER	
OIL CONSERVATION DIVISION	
<i>appl</i>	EXHIBIT NO. <i>A</i>
CASE NO.	<i>6730</i>



# PETROLEUM DEVELOPMENT CORPORATION

8720-B CANDELARIA, NE  
ALBUQUERQUE, NEW MEXICO 87112  
TELEPHONE (505) 293-4044

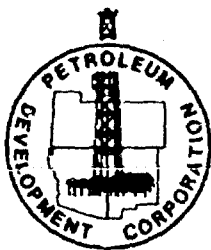
CASE NO. 6730

DOCKET No. 42-79, November 14, 1979

## EXHIBIT "A"

Following is a tabulation of wells in and adjacent to the Lusk-Morrow Gas Pool for which electric logs were available. Dry holes and near-dry holes and recent wells are not included. The purpose is to demonstrate the erratic and mostly low-acreage drainage of Morrow gas wells in the area.

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J-19-19-32	8,558,064	16	8.0	10,300,000	950
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K-18-19-32	128,378	28	6.5	130,000	8
J-9-19-32	293,295	21	10.3	850,000	47
K-16-19-32	1,830,169	36	10.0	3,000,000	98
F-16-19-32	837,060	13	8.0	2,600,000	295
N-34-18-32	644,726	21	8.9	1,100,000	70
L-3-19-32	1,335,184	33	7.2	5,000,000	248



# PETROLEUM DEVELOPMENT CORPORATION

9720-B CANDELARIA, NE  
ALBUQUERQUE, NEW MEXICO 87112  
TELEPHONE (505) 293-4044

CASE NO. 6730

DOCKET No. 42-79, November 14, 1979

## EXHIBIT "A"

Following is a tabulation of wells in and adjacent to the Lusk-Morrow Gas Pool for which electric logs were available. Dry holes and near-dry holes and recent wells are not included. The purpose is to demonstrate the erratic and mostly low-acreage drainage of Morrow gas wells in the area.

<u>Well Location</u>	<u>Cum. Prod., MCF to 1-1-79</u>	<u>Net Pay Feet</u>	<u>Average Poro. %</u>	<u>Calc. Ult. Prod.-MCF</u>	<u>Calc. Drainage Acres</u>
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J-9-19-32	293,295	21	10.3	850,000	47
K-16-19-32	1,830,169	36	10.0	3,000,000	98
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N-34-18-32	644,726	21	8.9	1,100,000	70
L-3-19-32	1,335,184	33	7.2	5,000,000	248

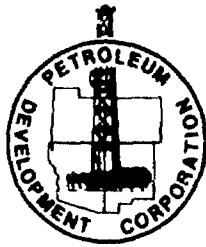
CASE 6729: Application of Adams Exploration Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying Section 16, Township 20 South, Range 36 East, North Osado-Morrow Gas Pool, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6730: Application of Petroleum Development Corporation to limit 640-acre spacing, Eddy and Lea Counties, New Mexico. Applicant, in the above-styled cause, seeks an order limiting the applicability of the 640-acre spacing and well location rules for the Lusk-Morrow Gas Pool to the present boundaries of said pool so that wells drilled nearby but outside the pool would be governed by Rule 104 of the Division's Rules.

CASE 6731: Application of Petroleum Development Corporation for a non-standard gas proration unit and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 660 feet from the North and West lines of Section 13, Township 19 South, Range 31 East, Lusk-Morrow Gas Pool, the N/2 of said Section 13 to be dedicated to the well as a non-standard 320-acre proration unit.

CASE 6709: (Continued from October 31, 1979, Examiner Hearing)

Application of HNG Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 33, Township 16 South, Range 35 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.



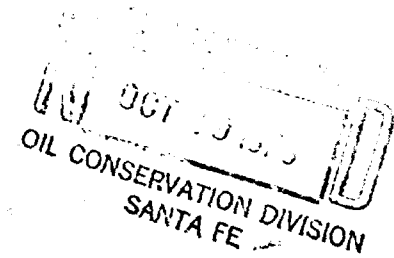
## PETROLEUM DEVELOPMENT CORPORATION

9720-B CANDELARIA, NE  
ALBUQUERQUE, NEW MEXICO 87112  
TELEPHONE (505) 293-4044

October 26, 1979

Case 6730

Mr. Joe D. Ramey  
Secretary-Director  
OIL CONSERVATION COMMISSION  
PO Box 2088  
Santa Fe, New Mexico 87501



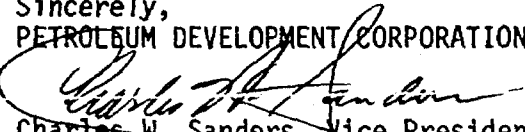
Dear Mr. Ramey:

RE: Lusk Morrow Field Rules. Application for rule change to require 640-acre proration unit within boundary of field only.

It is requested that our application be placed on the November, 1979 docket for consideration that the requirement for a 640-acre proration unit for the Lusk Morrow Field be changed to require the 640-acre proration unit for Morrow gas wells drilled within the boundary of the field only.

This request is made for the following reasons:

1. The trend is toward closer spacing for all gas-well drilling, which will result in greater ultimate gas recovery and higher current production.
2. The above rule change would effectively reduce the paperwork and manpower requirements for both the State and industry, and would allow more efficient development of gas reserves in the area.
3. On the average, drainage more nearly approximates 320 acres than 640 acres in the immediate area. Also, our experience in the area indicates that virgin reservoir conditions are often encountered on a 320-acre offset to an old well due to sand lenticularity.

Sincerely,  
PETROLEUM DEVELOPMENT CORPORATION  
  
Charles W. Sanders, Vice President

CWS:cmj

Chas Sanders #67 2:20 P 10/25

Application of Petroleum Development Corporation to limit 640-acre spacing Eddy and Lea Counties, New Mexico

Applicant, in the above-styled cause, seeks an order limiting the applicability of the 640-acre spacing and well location rules for the Luck Marrow Gas Pool to the present boundaries of said pool so that wells drilled nearby but outside the pool would be governed by Rule 104 of the Division's Rules.

ROUGH

dr/

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 6730

Order No. R-6197

APPLICATION OF PETROLEUM DEVELOPMENT  
CORPORATION TO LIMIT 640-ACRE SPACING,  
EDDY AND LEA COUNTIES, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 14,  
19 79, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this \_\_\_\_\_ day of November, 19 79, the  
Division Director, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

(1) That due public notice having been given as required  
by law, the Division has jurisdiction of this cause and the  
subject matter thereof.

(2) That by Order No. R-2373, dated November 21, 1962, the Division  
created the Lusk-Morrow Gas Pool and promulgated special rules therefor,  
including a provision for 640-acre spacing and proration units, and said  
rules were made permanent by Order No. R-2373-B, dated May 19, 1965.

-2-  
Case No. 6730  
Order No. R-

(3) That said rules were made applicable to wells completed or recompleted in the Lusk Morrow Gas Pool or in the Morrow formation within one mile of said pool and not nearer to nor within the limits of another designated pool.

(4) That the applicant in this case, Petroleum Development Corporation, seeks the Amendment of the special rules for the Lusk-Morrow Gas Pool to cause said rules to be applicable only to those wells completed or recompleted within the boundaries of said pool, and not to wells completed or recompleted outside such boundaries but within one mile thereof.

(5) That the Lusk-Morrow Gas Pool, as presently defined by the Division, comprises the following described area:

EDDY COUNTY  
TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM  
Sections 24 and 25: All

LEA COUNTY  
TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM  
Sections 9 and 10: All  
Sections 15 and 16: All  
Sections 18 through 21: All  
Sections 27 through 30: All  
Section 32: All

(6) That no operator in the Lusk-Morrow Gas Pool nor within one mile thereof objected to applicant's proposal.

(7) That the limitation of the applicability of the special rules for the subject pool to said pool's boundaries as they currently exist will not impair correlative rights nor cause waste, but indeed may prevent waste by permitting the drilling for and production of gas which might otherwise remain unrecovered, and should be approved.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations for the Lusk-Morrow Gas Pool, Eddy and Lea Counties, New Mexico, as promulgated by Division Order No. R-2373 dated November 21, 1962, and made permanent by Order No. R-2373-B, dated May 19, 1965, are hereby limited to the following described area:



EDDY COUNTY  
TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM  
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Sections 9 and 10: All  
Sections 15 and 16: All  
Sections 18 through 21: All  
Sections 27 through 30: All  
Section 32: All

(2) That Rule 1 of said Special Rules and Regulations is hereby amended to read in its entirety as follows:

"RULE 1. Each well completed or recompleted in the Lusk-Morrow Gas Pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth."

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.