

CASE NO.

7569

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APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,  
ETC.

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO  
12 May 1982

EXAMINER HEARING

IN THE MATTER OF:

Application of Petroleum Corp. of  
Delaware for a dual completion, Eddy  
County, New Mexico.

CASE  
~~5768~~  
7568

and

Application of Petroleum Corp. of  
Delaware for downhole commingling,  
Eddy County, New Mexico.

CASE  
~~5769~~  
7569

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

Michael Cunningham, Pro Tem  
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For the Applicant:

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I N D E X

STATEMENT BY MR. COFFIELD

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HAL DEAN

Direct Examination by Mr. Coffield

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LARRY C. SHANNON

Direct Examination by Mr. Coffield

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Cross Examination by Mr. Stamets

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E X H I B I T S

Applicant Exhibit One, Contour Map

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Applicant Exhibit One-A, Contour Map

7

Applicant Exhibit Two-A, Log

12

Applicant Exhibit Two-B, Log

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Applicant Exhibit Two-C, Log

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Applicant Exhibit Three-A, Schematic

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Applicant Exhibit Three-B, Schematic

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Applicant Exhibit Three-C, Schematic

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1  
2 MR. STAMETS: The hearing will please come  
3 to order.

4 We'll call next Case 7568.

5 MR. CUNNINGHAM: Application of Petroleum  
6 Corporation of Delaware for a dual completion, Eddy County,  
7 New Mexico.

8 MR. COFFIELD: I'm Conrad Coffield with  
9 the Hinkle Law Firm in Midland, Texas, appearing on behalf of  
10 the applicant, and in connection with this case, Mr. Examiner,  
11 the application and the manner in which the case has been ad-  
12 vertised and appears on the docket sheet indicates that the  
13 well is to be a producer of oil from the Strawn formation and  
14 gas from the Morrow formation, which appeared to be accurate  
15 on preliminary testing of the well.

16 In fact, it now appears that the Strawn  
17 formation would be a gas producer and the Morrow formation  
18 likewise, and accordingly, the Petroleum Corporation would  
19 like to amend their application in this regard to change the  
20 manner in which the dual completion would be accomplished and  
21 produce the gas from the Strawn formation through the casing-  
22 tubing annulus, and the Morrow formation through the tubing.

23 This is a rather substantial change, I  
24 recognize, in the application and in the -- and in the manner  
25 in which it's been advertised, and perhaps it will need to be

1  
2 readvertised. But we would respectfully request the authority  
3 to amend the application and present the case to you on that  
4 basis.

5 MR. STAMETS: Okay, we'll listen to it and  
6 see what we can do with it.

7 MR. COFFIELD: Okay. Then, in addition,  
8 to further complicate matters, the next case, 7569, which re-  
9 lates to downhole commingling for two wells, geologically and  
10 otherwise is a closely related case and in the interest of,  
11 perhaps shortening the length of the testimony here today,  
12 and what not, we suggest that the two cases be consolidated  
13 for purposes of testimony.

14 MR. STAMETS: All right, let's call Case  
15 7569.

16 MR. CUNNINGHAM: Application of Petroleum  
17 Corporation of Delaware for downhole commingling, Eddy County,  
18 New Mexico.

19 MR. COFFIELD: I am Conrad Coffield with  
20 the Hinkle Law Firm, appearing on behalf of the applicant.  
21 I have two witnesses in these cases, Mr. Examiner.

22  
23 (Witnesses sworn.)  
24  
25

HAL DEAN

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

DIRECT EXAMINATION

BY MR. COPFIELD:

Q Mr. Dean, for the record would you please  
state your name and address?

A My name is Hal Dean, Midland, Texas.

Q What is your occupation, Mr. Dean?

A I'm a consulting geologist for Petroleum  
Corporation.

Q Have you previously testified before the  
Division as a geologist?

A Yes, sir.

Q Were your qualifications made a matter of  
record and accepted by the Division?

A Yes, sir, they were.

Q Are you familiar with the Petroleum Corpor-  
ation's applications in these cases?

A Yes, I am.

Q And likewise are you familiar with the  
geology involved in this area?

A Yes, I am.

1  
2 MR. COFFIELD: Mr. Examiner, I tender Mr.  
3 Dean as an expert geologist.

4 MR. STAMETS: He is considered qualified.

5 Q Mr. Dean, would you tell us first of all  
6 what it is that Petroleum Corporation seeks in Case 7568?

7 A The applicant seeks approval for the dual  
8 completion of the Superior Federal Well No. 6, located in Unit  
9 N of Section 6, Township 20 South, Range 29 East, East Burton  
10 Flats Field, to produce gas from the Strawn formation through  
11 the casing-tubular annulus and gas from the Morrow formation  
12 through the tubing.

13 Q Likewise would you please state what it is  
14 Petroleum Corporation seeks by its application in Case Number  
15 7569?

16 A Okay. The applicant seeks approval for the  
17 downhole commingling of Atoka and Morrow production in the  
18 wellbores of its Parkway West Unit Well No. 3, located in  
19 Unit K of Section 29, and Well No. 10, located in Unit G of  
20 Section 27, both in Township 19 South, Range 29 East.

21 Q Mr. Dean, please refer to what we've marked  
22 as Exhibit One in these cases and discuss that exhibit. Ex-  
23 plain it, please.

24 A Exhibit One is a structure-contour map con-  
25 toured on the top of the Strawn formation. The Petroleum

Corporation's Superior Federal lease is outlined by yellow.

At the present time Wells Nos. 3 and Wells No. 4 are producing from the Strawn formation in the Parkway -- I mean in the East Burton Flats Strawn Field.

We have now completed the Superior Federal 6 as a Strawn producer. This well was perforated in the Strawn formation from 10,282 to 10,294, and was also completed in the Morrow formation from perforations 11,236 to 251, and through perforations 11,177 to 11,203.

Q All right, Mr. Dean, what about this particular exhibit now with reference to the two cases -- I mean the two wells involved in Case 7569, being the Parkway No. 3 and No. 10 Wells?

A The structure map extends over this Burton Flats East Strawn Field in a northeasterly direction across the Parkway West Field, which is producing from the Morrow, the Atoka, and the Strawn formations.

Q Okay, do you have anything further to bring to the Examiner's attention on this exhibit?

A No, sir.

Q Let's go on, then, to Exhibit One-A and explain that exhibit to the Examiner.

A Okay. Exhibit One-A is a map contoured on the Lower Morrow marker, and again exhibits the structure,



1  
2 showing an east dipping monocline with accumulation as a  
3 result of stratigraphic entrapment.

4 The wells contingent here are the Well  
5 Parkway West Unit No. 3, located in the southwest quarter of  
6 Section 29, and the Petroleum Corporation No. 10, located in  
7 the northeast of 27.

8 The Parkway West No. 3, which is a south-  
9 west offset to the Parkway West No. 2, completed solely in  
10 the Morrow formation. We perforated an interval in the Morrow,  
11 as used by the New Mexico Oil and Gas Commission, from in-  
12 terval 11,146 to 11,188, and from 10,742 to 11,085. The per-  
13 foration in question in which we desire to commingle, are  
14 the perforations from 10,742 to 44, and 10,750 to 760.

15 As you can notice, those perforations, ap-  
16 proximately 250 feet above the New Mexico classification of  
17 the Morrow limestone, however, it is below the -- approxi-  
18 mately 150 feet below the classification of the Atoka zone  
19 producing offsetting the Parkway West Unit.

20 In examining the log numbered Parkway West  
21 No. 3 --

22 Q Excuse me, Mr. Dean, at this point maybe  
23 it would be wise to go ahead and get into the logs, since  
24 you were testifying from those logs --

25 A Yeah.

1  
2 Q -- as opposed to the exhibit which is being  
3 submitted.

4 Which -- which log are you referring to  
5 now?

6 A We're at the Parkway West No. 3.

7 Q And this is Exhibit Number Two-B, Mr. Exam-  
8 iner. Okay, Mr. Dean, you were testifying as to the materials  
9 reflected on Exhibit Two-B.

10 A Two-B, yes, sir.

11 Q Okay, go ahead now and explain that to the  
12 Examiner.

13 A Fine. In conjunction with the structure  
14 map on the Morrow formation, immediately north of the Parkway  
15 West Unit is the -- what they call the Turkey Track Atoka  
16 Field. The wells completed in that zone are indicated on  
17 your map in green. They are located in Sections 1, 10, 11,  
18 and 13, in 19 South, 29. Also there is one Atoka well com-  
19 pleted in the Parkway West Unit. That is the No. 1 discovery  
20 well, located in Section 28.

21 Q Mr. Dean, are all those wells to which  
22 you've made reference, are all those highlighted on Exhibit  
23 One-A?

24 A Yes, sir.

25 Q Okay, go ahead.

1  
2 A Now, what -- the location of the well that  
3 we are talking about is in the southwest quarter of Section  
4 29. That is the Petroleum Corporation Parkway West Unit No. 3.  
5 That well is completed over a variety of perforations, with  
6 the perforations which are considered in the Atoka formation  
7 exist from 10,742 to 45, and 10,750 to 60. The producing  
8 intervals which are classified in the Atoka Field are indicated  
9 on the gamma ray side in green. Those would be at 10,550 to  
10 10,575, that interval is producing in the Petroleum Corpora-  
11 tion No. 1 Parkway West Unit.

12 The interval from 10,638 to 66 is producing  
13 in the Turkey Track Atoka Field immediately north of the  
14 Parkway West Unit.

15 Q Do you have other features on Exhibit  
16 One-A, Mr. Dean, that you need to --

17 A Yes, I could talk about the -- also in the  
18 Parkway West Unit No. 10, it was --

19 Q Excuse me, Mr. Dean, the Parkway Unit,  
20 were you also going to be talking now with reference with  
21 what I believe is marked Exhibit Two-C?

22 A Two-C.

23 Q Okay, with reference to both the Exhibit  
24 One-A and Two-C, then, please proceed, Mr. Dean.

25 A All right. In the Parkway Unit No. 10 the

1  
2 Morrow was perforated from 11,087 to a basal perforation of  
3 11,466; in the classification above the Morrow and considered  
4 in the Atoka are perforations from 10,087 to 96, and from  
5 11,016 to 11,032. The remainder of the perforations are  
6 within the normal nomenclature of the Morrow formation, regular  
7 Morrow as designated.

8 Q All right, Mr. Dean, with respect now to  
9 the matters that are reflected on Exhibits Two-B and Two-C,  
10 showing the perforations which have been made within the --  
11 what are classified as two different formations, one being  
12 the Atoka, the upper part being the Atoka and the lower part  
13 being classified as Morrow, would you please explain to the  
14 Examiner how those completions, or those perforations were  
15 made in the drilling of this particular well?

16 A Well --

17 Q Two wells.

18 A At this time we consider the zones that  
19 are producing as Atoka, and classified as Atoka. The zones  
20 that were producing in the Petroleum Corporation No. 1, which  
21 is immediately at the top of the Atoka, and the Atoka zone  
22 producing in Turkey Track No. -- in Turkey Track, we consider  
23 those as the Atoka zone.

24 We consider the standard, identifiable  
25 shale section higher than what the -- sand and shale section

1  
2 higher than what the New Mexico Commission called at that  
3 particular time.

4 Q Okay.

5 A We are in different, separate zones from  
6 the Atoka now producing.

7 Q Okay, then it's your expert opinion, is  
8 this correct, it's your expert opinion that strictly from  
9 scientific, geological point of view, that the horizons in-  
10 volved here in these particular now called two separate hori-  
11 zons, are in fact geologically the same?

12 A Yes, sir.

13 Q Okay, now I believe we're ready for you to  
14 direct your attention to the No. 6 Well, the one that's the  
15 subject of Case Number 7568, and discuss the geological mat-  
16 ters in connection with your Exhibit One-A and Exhibit Two-A,  
17 which is -- I would like for you to please identify and dis-  
18 cuss with the Examiner.

19 A All right. The log which is classified as  
20 Two-A indicates the perforations in the Morrow, which are  
21 totally within the Morrow Clastic zone, at 11,177 to basal at  
22 11,254. The Morrow zone is easily identifiable and correlates  
23 with the adjacent Morrow producing wells.

24 The Strawn formation is present from  
25 10,282 to 294, and is an algal bank in the upper portion of

1  
2 the Strawn and this zone is -- is possibly productive to the  
3 east in the -- correlative with the producing zone in the  
4 Petroleum Corporation's Superior Federal No. 4, located in  
5 Section 5, approximately two miles east of the Well No. 6.

6 Q And as a matter of clarification then, Mr.  
7 Dean, with respect to distinguishing the downhole condition  
8 of this particular Well No. 6 with the other two wells that  
9 you've discussed, is it correct that you do not have a pos-  
10 sible commingling problem in connection with the No. 6 Well?

11 A That is correct.

12 Q Do you have anything further that you want  
13 to add to your testimony?

14 A No, sir.

15 Q Mr. Dean, were these Exhibits One, One-A,  
16 and Two-A through Two-C, prepared by you or under your super-  
17 vision?

18 A Yes, they were.

19 Q And in your opinion will the approval of  
20 the application of Petroleum Corporation in this case, these  
21 cases, prevent the drilling of unnecessary wells and otherwise  
22 prevent waste and protect correlative rights?

23 A Yes.

24 MR. COFFIELD: Mr. Examiner, I move the  
25 admission of Exhibits One, One-A, and Two-A through Two-C.

1  
2 MR. STAMETS: These Exhibits will be ad-  
3 mitted.

4 MR. COFFIELD: And I submit Mr. Dean for  
5 cross examination.

6 MR. STAMETS: Are there questions of the  
7 witness? Mr. Dean may be excused at this time. We may have  
8 some questions for him later.

9  
10 LARRY C. SHANNON  
11 being called as a witness and being duly sworn upon his oath,  
12 testified as follows, to-wit:

13  
14 DIRECT EXAMINATION

15 BY MR. COFFIELD:

16 Q Mr. Shannon, for the record would you please  
17 state your name and address?

18 A Yes. Larry C. Shannon. I live in Dallas,  
19 Texas.

20 Q And what is your occupation and for whom  
21 do you work?

22 A I am a Senior Vice President with Petroleum  
23 Corporation of Delaware.

24 Q Have you previously testified before the  
25 Division as a petroleum engineer?

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2

A Yes, sir, I have.

3

Q Were your qualifications as an engineer

4

made a matter of record and accepted by the Division?

5

A Yes.

6

Q And are you familiar with Petroleum Cor-

7

poration's application in this case?

8

A Yes.

9

Q And are you familiar with the engineering

10

aspects with respect to the wells being considered in these

11

two cases?

12

A Yes, sir.

13

MR. COFFIELD: Mr. Examiner, I tender Mr.

14

Shannon as an expert petroleum engineer.

15

MR. STAMETS: He is considered qualified.

16

Q Mr. Shannon, would you go to what we've

17

marked now as Exhibits -- Exhibit Three-A?

18

A Exhibit Three-A is a schedule of our com-

19

pletion procedure in the Superior Federal No. 6 Well, the

20

first case on the docket, application for dual completion.

21

We basically, we use a packer where we have

22

set it at 10,710 feet, with landing nipples below it, so that

23

in case we have to trip the tubing we do not put mud back on

24

the Morrow zone. We have found that it's very detrimental to

25

the life of the Morrow sands if you ever have to kill them.



1  
2 We then perforate the Morrow with the  
3 tubing void of liquids. We displace the tubing with nitrogen  
4 and then perforate under balance.

5 And in the case of this well we have not  
6 yet stimulated the Morrow zone between 11,177 and 11,314 feet.  
7 We do plan to stimulate it after a gas line has been connected  
8 to the well and the well is producing. It has a capability  
9 to produce over 2-million cubic feet a day under present con-  
10 ditions, but we think within six months it will need to be  
11 stimulated.

12 We, after testing the Morrow zone, we then  
13 blank off, putting a landing -- put a blanking plug right at,  
14 you know, 10,800 feet, pull the tubing, set a packer, and  
15 test the Strawn zone from 10,282 to 10,294. We did -- and as  
16 you can see off to the right, we give kind of a brief resume  
17 of what occurred. We did acidize the zone and we did flow it  
18 at rates up to 2-million cubic feet a day; however, those  
19 were preliminary tests and we had some reported liquid volumes  
20 that we found out later were not that high. At one time we  
21 thought we might have had 100 barrel a day out of the Strawn.

22 We do have a Strawn interval in this area  
23 that will make over 100 barrel a day, but correlatively it's above  
24 where we're perforated right now, and it does do so in our  
25 Superior Federal No. 4 Well. We're perforated deeper in the

1  
2 Strawn and it's a gas zone. It's a comparable zone to our  
3 Superior Federal No. 3 Well, but it will produce, we believe,  
4 and from -- since we've tested this by itself, we did put the  
5 well back as you see it now in the sketch, and have tested  
6 both zones. Unfortunately, we had to kill the Strawn and it  
7 doesn't flow at the rates it did before. We have not yet  
8 acidized it because we wanted to wait and see what the outcome  
9 of this hearing will be, but it now flows about 400 Mcf a day  
10 of gas and no liquids at all. It shuts-in at high pressures,  
11 3000 pounds or thereabouts. The Morrow shuts-in at about  
12 3400 pounds, but we have not been able to get the rate that  
13 we observed when we tested the zone by itself and we think  
14 that a small acid treatment will restore the Strawn. We're  
15 not so worried about permanent damage to the Strawn zone as  
16 we are to the Morrow.

17 Now, one other thing that we're concerned  
18 about in the way the application is written, and I believe it  
19 was probably at the direction of someone here in Santa Fe,  
20 maybe, at that time we thought we had liquids in the Strawn,  
21 and they said we'd have to have a crossover because we could  
22 not produce the heavy liquids up the casing-tubing annulus.

23 As an engineer, I'm very concerned about  
24 the crossover because to put a crossover in we would have to  
25 kill the Morrow with liquids. We could not pull the blanking

1  
2 plug with the crossover, and therfor we would jeopardize, I  
3 believe, the Morrow zone capabilities, and we think that the  
4 Morrow has higher reserves than does the Strawn. So we would  
5 not want to jeopardize our Morrow zone, by utilizing a cross-  
6 over, if we could avoid it, because we think we can get a lot  
7 more production from the Morrow.

8 I guess basically Exhibit Three-A --

9 Q Okay, with respect, however, to that parti-  
10 cular well and the downhole condition of the -- of the well,  
11 Mr. Shannon, would you discuss briefly the situation with  
12 respect to possible pressure problems in connection with the  
13 casing and --

14 A Right. In this well we have run 4-1/2,  
15 13-1/2 pound, and 1160 pound, all NAD casing, so the casing  
16 is rated at above 7700 psi. We set a DV tool the schematic  
17 does not show because it's above that depth, but the DV tool  
18 was set at 8995 and we made an attempt to cement casing to  
19 the surface. I cannot tell you where the top of cement is,  
20 but we think it's very close to the surface, and we think  
21 it's inside the 8-5/8ths casing.

22 So we think that we have protected the  
23 well in a prudent manner for a dual completion with one zone  
24 being produced through the casing annulus.

25 Q In the event the application in this case,

1  
2 Number 7568, with respect to dual completion were not -- were  
3 not granted, Mr. Shannon, what -- what would you propose to  
4 do with the well?

5 A It would be up to the Commission. We may  
6 have to cement off the Strawn zone because we want to produce  
7 the Morrow zone.

8 Q To what effect would that -- what might  
9 occur? Would there be economic repercussions or how would you  
10 see the results?

11 A Well, we think that the Strawn zone has  
12 a possibility of 3-billion cubic feet of gas reserves, we  
13 may jeopardize losing through cementing.

14 Q Do you likewise feel it might jeopardize  
15 the Morrow zone as well?

16 A Well, I -- I don't think -- unless we  
17 would be forced to do something we would not want to put mud  
18 on the Morrow zone. We'd rather just produce the Morrow by  
19 itself.

20 Q As to this particular well, Mr. Shannon,  
21 is it correct that Petroleum Corporation is -- owns or con-  
22 trols the offset acreage?

23 A Yes, sir. We have -- we're the operator  
24 in the south half of Section 6, all of Section 5, and through  
25 unitization we have the west half of Section 4. We farmed

1  
2 out our 80-acres in Section 7 to Yates (inaudible).

3 Q Okay. Now, then, if you're finished with  
4 your discussion on the well, let's direct your attention and  
5 the Examiner's attention to Exhibit Three-B.

6 A All right.

7 Q And explain it.

8 A Exhibit Three-B is a sketch of our comple-  
9 tion procedure of the Parkway West Unit No. 3 Well, and here  
10 again we set a packer at, in this case, at 10,600 feet, voided  
11 the tubing of liquids through the use of nitrogen, and then  
12 perforated the lower section from 11,147 to 11,189 feet.

13 We then tested and acidized this zone and  
14 there probably is some -- we did not measure bottom hole  
15 pressure, but the indications from this are that this zone  
16 is slightly lower in pressure because it's the same zone that  
17 is producing on our No. 2 Well, and we think we see some par-  
18 tial drainage.

19 So we went ahead, then, and perforated the  
20 other zones from 10,742 to 11,085, and flowed all the zones  
21 at rate of 4-million cubic feet a day. It's a very strong  
22 well in the Morrow; one of the strongest wells that we have  
23 in this 6-section unit.

24 And it's been shut-in since then because  
25 inadvertently, we did not realize that the Commission considered

1  
2 these upper zones Atoka. I know that's no excuse but that's  
3 what happened to us, and we thought that we were avoiding the  
4 Atoka zone when we perforated the Upper Morrow. We feel that  
5 all these sands are comparable sands and it's very difficult  
6 to identify why one would be separated from the other, except  
7 that this is the rule, as we understand.

8 Q Okay, with respect to this particular well,  
9 Mr. Shannon, in the event the Division were to permit the  
10 downhole commingling as requested, do you have any formula  
11 that you would like to submit to the Division as to the allo-  
12 cation of production between the Atoka and the Morrow?

13 A Yes, I would suggest that we add up the  
14 net pay that's perforated in the zones, which I've done, and  
15 there's -- the way I calculate it, there's 14 feet of net pay  
16 above the interval that the Commission considers the top of  
17 the Morrow, and there's 23 feet below which everyone considers  
18 the Morrow, and that's 38 percent of the total net pay open,  
19 and I would recommend that we allocate 38 percent of the pro-  
20 duction from this well to the Atoka zone and the remainder to  
21 the Morrow.

22 Q Okay, is ownership common throughout this  
23 entire interval?

24 A It's common throughout the entire vertical  
25 interval and within this 6-section unit.

1  
2 Q Okay. Then, we should be ready now for  
3 Exhibit Three-C. Would you please refer to that and discuss  
4 it, please?

5 A Exhibit Three-C is the sketch of the com-  
6 pletion procedure for the Parkway West Unit No. 10 Well, the  
7 other well that we're asking for permission to commingle.  
8 It's the one that's in Section 27.

9 In this case we also -- we have to read  
10 these like a Chinese, I guess, in a way, because you start at  
11 the bottom and work up. That's the way we perforated and  
12 that's the way our procedures have gone.

13 But anyway, we perforated the lower section  
14 from 11,409 to 11,466, and we had no pressure, so we just  
15 went ahead and perforated the next zone from 11, -- and we  
16 never could really get the rathole fluid between our packer  
17 and the perforations out of the hole, so we perforated another  
18 zone to help us, and then it did flow. At this time we  
19 acidized all the zones from 11,310 to 11,466 with 5000 gallons  
20 of acid, and then the well -- and then we flowed the well  
21 with shut-in tubing pressures of about 1700 pounds.

22 We did not attempt to complete. We cleaned  
23 this zone up for exact testing. We did not realize at the  
24 time we needed to. We then perforated the upper zone from  
25 11,087 to 11,189 and flowed all the zones. The tubing pres-

1  
2 sures then increased and helped clean up the well; we had more  
3 rate.

4 We then acidized all the zones all the way  
5 from 11,087 to 11,466 with 10,000 gallons of acid and the  
6 well flows at approximately a million cubic feet a day with  
7 10/64ths choke with 2600 psi flowing tubing pressure.

8 This is the weaker of the three Morrow  
9 wells that we've completed and that we're discussing in this  
10 hearing today.

11 Q In this case in this well that is the sub-  
12 ject of Exhibit Three-C, Mr. Shannon, do you likewise have a  
13 formula on that well?

14 A Yes.

15 Q With respect to allocation as between the  
16 Atoka and the Morrow?

17 A Here again, I suggest that we add up the  
18 net pay, and I added 27 feet of net pay to the porosity logs  
19 above the zone that the Commission calls the top of the Morrow,  
20 and 67 feet of net pay below, within the Morrow zone that  
21 everyone's concerned with. That's 29 percent of the total  
22 pay above what would be classified the Atoka zone, and I re-  
23 commend that we allocate 29 percent of this well's production  
24 to the Atoka zone.

25 Q And again, as a matter of repeating the



1  
2 common ownership again, this common ownership situation  
3 again applies to this particular well, as well?

4 A Yes, sir, it does.

5 Q In your opinion, Mr. Shannon, would the  
6 commingling of -- downhole commingling of the production from  
7 these two formations, would there be any reason to suspect  
8 that such commingling would be damaging to either of the re-  
9 servoirs or in any way damaging to the matters downhole?

10 A I see none whatsoever. In fact, I think  
11 it's beneficial, you know, the zones help each other, parti-  
12 cularly in the No. 10 Well we needed the extra rate to keep  
13 the well clean. We think we can ultimately produce more re-  
14 serves.

15 Q Were Exhibits Three-A, B, and C prepared  
16 by you or under your supervision?

17 A Yes, they were.

18 Q And in your opinion would the approval of  
19 this application be in the interest of conservation and pre-  
20 vention of waste and protection of correlative rights?

21 A Yes, we think it would.

22 MR. COFFIELD: Mr. Examiner, I move the  
23 admission of Exhibits Three-A, B, and C.

24 MR. STAMETS: These exhibits will be ad-  
25 mitted.

1  
2 MR. COFFIELD: I have no further questions  
3 on direct.  
4

5 CROSS EXAMINATION

6 BY MR. STAMETS:

7 Q Mr. Shannon, we'll start at the bottom and  
8 work our way up to the top.

9 A All right, sir.,

10 Q Since that seems to be the way to work on  
11 these wells.

12 On the No. 3 Well, what percentage of  
13 production did you intend to assign to the Atoka?

14 A The No. 3 Well?

15 Q Yes.

16 A I'm recommending 38 percent on a net pay  
17 basis, because I calculate -- we don't have as much zone per-  
18 forated in the No. 3. There's other zones to be perforated  
19 at a later date, but right now there's 14 feet the way I add  
20 the footage in the log above this Morrow zone and there are  
21 23 feet below.

22 Q Now you indicated, I believe, at least on  
23 the No. 10 Well, that some liquids were being produced, is  
24 that correct?

25 A Yes, sir.

1

2

3

Q What's the volume on that or do you have a rate yet?

4

5

6

A Yes, I think I do. These wells produce roughly 10 barrels per million, is what most of the Morrow over here has been. Let's see if I don't have something.

7

8

9

10

I don't have anything on the No. 10. We didn't have a separator on it at the time we tested it. I don't have records on that. The separator is there now but we have not produced the well.

11

12

13

Q Okay.

A And the No. 3 Well, I don't have any liquid ratios on that.

14

15

16

Q Looking at the pressures on the No. 10 Well, each of these seems to have a variety of pressures, the upper zone with an initial pressure of 5400; then --

17

18

19

A No, that's during acidizing.

Q I see. How about the 45-minute shut-in?

That's after acidizing?

20

21

22

A Right, that's after acidizing, yes, sir.

Q Okay, and then it flowed and then the initial shut-in after flow was 3400.

23

24

25

A Yes, sir. But that was after the -- we had liquids, you know, obviously used to displace the acid, and that's -- because these are the initial shut-in pressures.

1  
2 Because sometimes I'll put that in there  
3 because it's sometimes an indication of permeability.

4 Q I see. But do you have any formation  
5 pressure information on either of these wells?

6 A No, sir, I don't. We can run a bottom hole  
7 pressure but I -- there's no way I can get pressures for the  
8 individual zones. We did not run them.

9 Q Do you have any indication from nearby  
10 wells as to what the pressure should be?

11 A Yes, sir. We -- we looked at shut-in  
12 pressures after the wells are cleaned up and normally, 3,000  
13 to 3400 pounds is normal Morrow shut-ins.

14 We see the Atokas to the north of us, the  
15 Upper Atoka, those shut-in from about 34-3800 pounds, up to  
16 4000 pounds, as did our No. 1 Well when it was new.

17 The Atoka zone does seem to be much higher  
18 pressure; the Upper Atoka does.

19 Q You say much higher pressure --

20 A Well, you know, a few hundred pounds, yes,  
21 sir.

22 Q Would you anticipate once the wells go on-  
23 line that the pressures will equalize quite rapidly?

24 A Yes, we've seen that. In all the other  
25 wells we perforate more than one zone in this area, I mean

1  
2 they've always been what's been considered -- classified as  
3 the Morrow.

4 Q Is there any reason in particular why you  
5 don't run your tubing all the way to the bottom of the Morrow  
6 interval in these wells?

7 A Yes, sir, because we want to perforate  
8 through tubing and we don't want to move the packer. WE want  
9 to keep the packer above any possible zone that we want to  
10 perforate so that we can go through the packer and perforate  
11 and not trip the tubing.

12 Q Okay.

13 A There is -- there is one other reason,  
14 too, with the landing nipples if we ever have to trip the  
15 tubing we would blank it off and not put mud on the Morrow  
16 or (inaudible).

17 Q On the original application for the Strawn  
18 interval in the Superior No. 6 you showed 192 barrels of oil  
19 a day, 2,175,000 cubic feet of gas. What happened to all the  
20 oil?

21 A I -- there's something wrong with that  
22 work. We didn't have a good measurement of the liquids.  
23 It's unfortunate. That's what created all of our problems.

24 Q What are you going to do if you stimulate  
25 the Morrow -- or the Strawn in this well and the liquids come

1  
2 back?

3 A At that rate? I don't know, sir. I don't  
4 think it -- I don't think it will achieve that rate. I think  
5 we'll see a 30 to 50 barrel a day rate, but I don't think it  
6 will be that much.

7 Q Can you lift 30 to 50 barrels of liquids  
8 a day up the annulus with the amount of gas you've got now  
9 and do it efficiently?

10 You only have 400,000 a day now.

11 A Yes, sir, that's right.

12 Q It doesn't seem like --

13 A We cannot lift much liquid at 400 Mcf a  
14 day. What we've tried to do is shut the well in let it build  
15 up a few thousand pounds and open it up. Then you have a  
16 velocity to clean the well up. And so we think we have the  
17 annulus clean right now to acidize, but we have not tried to  
18 acidize it until we find out what -- what our position will  
19 be.

20 Q What would be the effect of shutting in  
21 the Strawn at this time, just leaving it shut in until the  
22 Morrow is depleted? Would it have any negative effect on the  
23 formation?

24 A We could probably -- I think we'd want to  
25 go ahead and put some mud in there to keep the pressure off

1  
2 the casing and not lose it. As to cash flow, we think the  
3 life of the Morrow is fifteen years. The logs -- I don't  
4 whether you noticed the log on the Morrow but it's really one  
5 of the best looking logs we've seen in the Morrow Sand in this  
6 area, and there are several other zones to be perforated.

7 We've just barely started at the bottom  
8 and we feel there's a lot of other zones to be perforated in  
9 the Morrow before we get through with it. So this well could  
10 very easily produce twenty years in the Morrow.

11 Q I don't believe we would have any diffi-  
12 culty approving the Strawn zone if it were indeed a gas zone  
13 with very minor amounts of liquids, but at this stage it's  
14 really difficult to say whether we could or could not, since  
15 the nature of the Strawn final production is certainly not  
16 clear at this stage.

17 A Right. Well, we'd be willing to run some  
18 more tests, if we could, to see -- go ahead and acidize the  
19 Strawn and run some lengthy tests to see what our ratio is.  
20 We've been trying to do that and just 400 is all we could get  
21 out of it, and we, like I said, I didn't want to acidize it  
22 until -- but if there is a chance to do that, I think that  
23 we'd be willing to take that risk.

24 Q Especially considering we might wish to  
25 readvertise this case.

1  
2 A Yes.

3 Q I think that might be an appropriate way  
4 to handle it. Is the well shut-in at this time in both zones?

5 A Yes, it is. Both zones are shut-in, except  
6 when we tested them. We don't have a pipeline on this well.

7 Q Okay, I would believe we could probably  
8 arrange for authorization to produce this well on a test  
9 basis while we are getting around to the readvertisement.

10 A Can we -- could we perf -- I guess we  
11 could produce the Morrow, anyway, could we not?

12 Q Yes.

13 A There's no problem with it. It's just  
14 the Strawn.

15 Q Right. Let's go off the record a minute.  
16

17 (There followed discussion off  
18 the record.)  
19

20 MR. STAMETS: All right, we'll go back on  
21 the record.

22 Q Mr. Shannon, in light of the getting the  
23 information we need in order to make a rational decision on  
24 this case, might I suggest that we continue this case for  
25 about 120 days, or to the first Examiner Hearing in September,



1  
2 during which time on a test basis you can get this well  
3 cleaned up and get some additional information? Does that  
4 sound acceptable?

5 A It certainly does.

6 MR. STAMETS: All right, we will, then,  
7 continue this case to the first Examiner Hearing in September,  
8 and then, if necessary, we can also readvertise the case at  
9 that time.

10 Are there any further questions relative  
11 to Case 7569? The witness may be excused.

12 Anything further in this case?

13 MR. COFFIELD: No, sir.

14 MR. STAMETS: Or these cases?

15 Case 7569, then, will be taken under ad-  
16 visement.

17  
18 (Hearing concluded.)  
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 Conserva-  
tion 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.

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. \_\_\_\_\_,  
heard by me on \_\_\_\_\_ 19\_\_\_\_.

\_\_\_\_\_, Examiner  
Oil Conservation Division

SALL. W. BOYD, C.S.R.

Rt. 1 Box 193-B  
Santa Fe, New Mexico 87501  
Phone: (505) 455-7409



**BRUCE KING**

**GOVERNOR**

LARRY KEHOE  
SECRETARY

STATE OF NEW MEXICO

**ENERGY AND MINERALS DEPARTMENT**  
**OIL CONSERVATION DIVISION**

May 26, 1982

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Mr. Conrad E. Coffield  
Hinkle, Cox, Eaton, Coffield  
& Hensley  
Attorneys at Law  
P. O. Box 3580  
Midland, Texas 79702

Re: CASE NO. 7569  
ORDER NO. R-6782

**Applicant:**

Petroleum Corp. of Delaware

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	x
Artesia OCD	x
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. 7569  
Order No. R-6982

APPLICATION OF PETROLEUM CORP. OF  
DELAWARE FOR DOWNHOLE COMMINGLING,  
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on May 12, 1982,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 24th day of May, 1981, 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 the applicant, Petroleum Corp. of Delaware, is  
the owner and operator of the Parkway West Unit Well No. 3,  
located in Unit K of Section 29 and the Parkway West Unit Well  
No. 10, located in Unit G of Section 27, both in Township 19  
South, Range 29 East, NMPM, Eddy County, New Mexico
- (3) That the applicant seeks authority to commingle Atoka  
and Morrow production within the wellbore of the above-described  
wells.
- (4) That the proposed commingling may result in the  
recovery of additional hydrocarbons from each of the subject  
pools, thereby preventing waste, and will not violate  
correlative rights.
- (5) That the reservoir characteristics of each of the  
subject zones are such that underground waste would not be  
caused by the proposed commingling provided that the well is not  
shut-in for an extended period.

-2-

Case No. 7569  
Order No. R-6982

(6) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Artesia district office of the Division any time the subject well is shut-in for 7 consecutive days.

(7) That in order to allocate the commingled production to each of the commingled zones in the subject well, 38 percent and 29 percent of the commingled production should be allocated to the Atoka zone, respectively, in said Well No. 3 and Well No. 10 with the remainder being allocated to the Morrow zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, Petroleum Corp. of Delaware, is hereby authorized to commingle Atoka and Morrow production within the wellbores of the Parkway West Unit Well No. 3, located in Unit K of Section 29, and the Parkway West Unit Well No. 10, located in G of Section 27, both in Township 19 South, Range 29 East, NMPM, Eddy County, New Mexico.

(2) That 38 percent and 29 percent of the commingled production shall be allocated to the Atoka zone, respectively, in said Well No. 3 and Well No. 10 with the remainder being allocated to the Morrow zone.

(3) That the operator of the subject wells shall immediately notify the Division's Artesia district office any time either of the wells has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) 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*  
JOE D. RAMEY,  
Director

THE PETROLEUM CORPORATION

3303 LEE PARKWAY  
DALLAS, TEXAS 75219

May 10, 1982

SUBJECT: Superior Federal No. 6 Well  
Sketch Of Completion Procedure

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

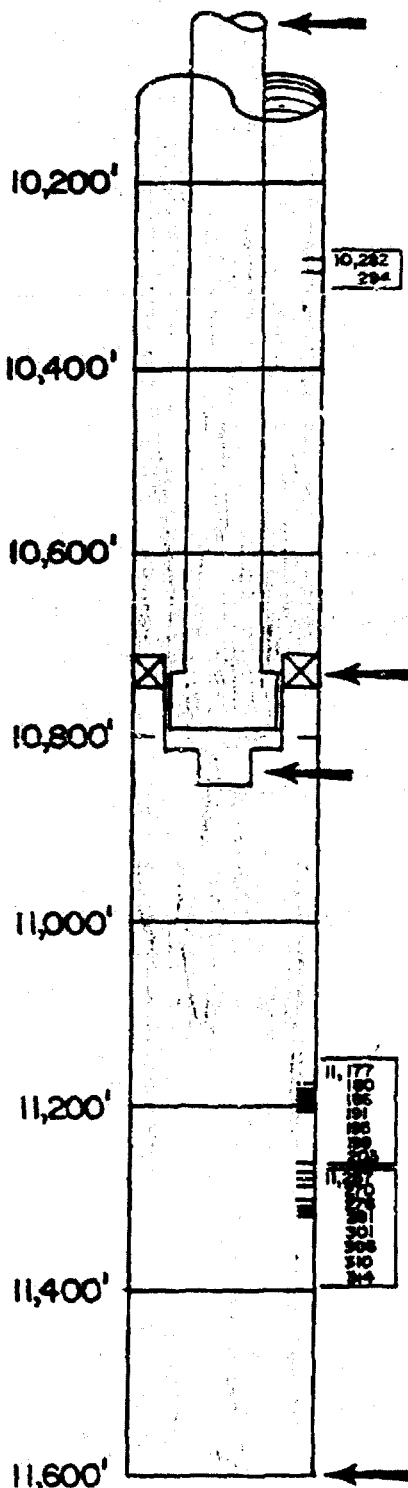
EXHIBIT NO. 3A

CASE NO. 75681789

Submitted by Petroleum Corp

Hearing Date 5/12/82

2-3/8-inch tubing



Perforated Strawn zone with Morrow zone blocked off and an RTTS packer set at 10,148 feet. Well flowed at a low unmeasured gas rate; flowing tubing pressure - 50 psi; shut-in tubing pressure - 1,750 psi. Then acidized with 2,500 gallons; maximum pressure - 8,500 psi; initial shut-in pressure - 5,400 psi; 30 minute shut-in pressure - 3,850 psi. Then flowed for several days to clean up; shut-in tubing pressure - 3,200 psi. Flowed through a 3/4-inch choke with 150 psi surface flowing pressure. Then killed well and pulled tubing to equip well as shown on the right.

Baker Model DB packer at 10,710 feet.

Landing Nipples

Perforated Morrow zone from 11,177 feet to 11,251 feet and then flowed from perforations 11,177 feet to 11,314 feet at rate of 2,200,000 cubic feet a day; shut-in tubing pressure - 3,000 psi.

Perforated Morrow zone after tubing was displaced with nitrogen from 11,267 feet to 11,314 feet; tubing pressure was 2,000 psi. Flowed well at rates up to 3,000,000 cubic feet a day; shut-in tubing pressure - 3,300 psi.

4 1/2-inch casing set at 11,600 feet.

BEST AVAILABLE COPY

THE PETROLEUM CORPORATION

3303 LEE PARKWAY  
DALLAS, TEXAS 75219

May 10, 1982

**SUBJECT: Parkway West Unit No. 3 Well  
Sketch Of Completion Procedure**

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

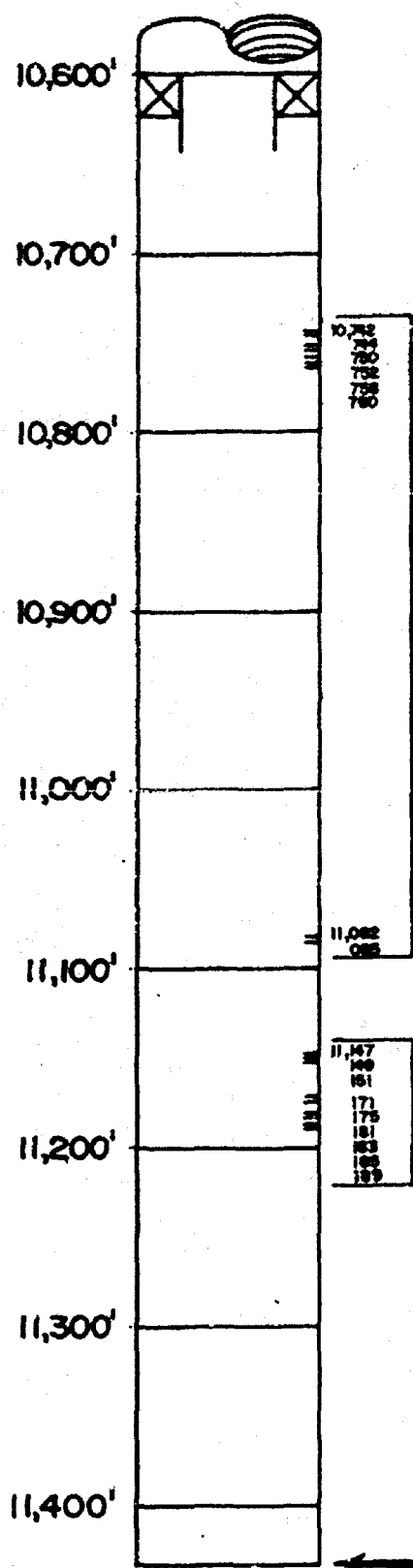
EXHIBIT NO. 33

CASE NO. 7562 + 1789

Submitted by Parker Corp

Hearing Date 5/12/82

Baker Model DB packer set at 10,600 feet.



Perforated from 10,742 feet to 11,085 feet and flowed all perforations (10,742 feet to 11,189 feet) through 22/64-inch choke; tubing pressure - 2,150 psi; estimated gas rate at 4,000 MCF/day. Shut-in tubing pressure - 3,500 psi.

Perforated after tubing was displaced with nitrogen; no surface pressure. Acidized with 5,000 gallons; maximum pressure - 8,900 psi; 12 ball sealers. Initial shut-in pressure - 5,200 psi; 60-minute shut-in pressure - 1,900 psi. Attempted to clean to pit for three days; maximum surface shut-in pressure - 500 psi.

4½-inch casing set at 11,434 feet.

**BEST AVAILABLE COPY**



THE PETROLEUM CORPORATION

3303 LEE PARKWAY  
DALLAS, TEXAS 75219

May 10, 1982

SUBJECT: Parkway West Unit No. 10 Well  
Sketch Of Completion Procedure

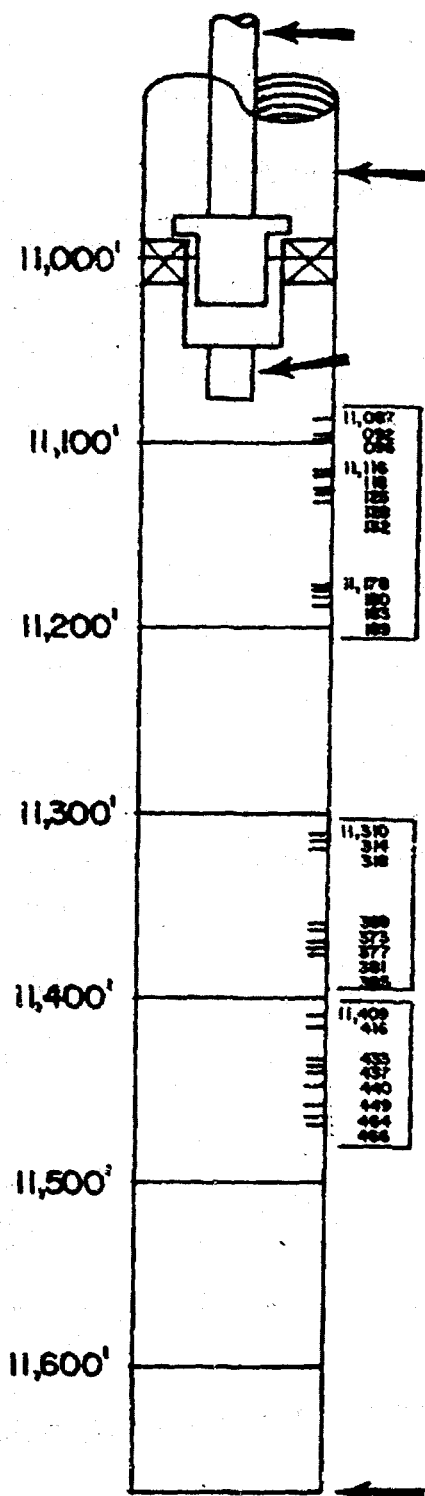
BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. 3C

CASE NO. 756847869

Submitted by Petroleum Corp

Hearing Date 5/12/82



2-3/8-inch tubing

4 1/2-inch casing

Baker Model DB packer set at 10,990 feet.

Landing nipples

Flowed well after perforating; all zones open; shut-in tubing pressure - 2,750 psi. Acidized all zones with 10,000 gallons of acid; maximum pressure - 8,500 psi; 34 ball sealers. Initial shut-in pressure - 5,400 psi; 45-minute shut-in pressure - 3,475 psi. Flowed well for four days to clean up. Shut-in tubing pressure - 3,400 psi; flowed approximately 1,000 MCF/day of gas through 10/64-inch choke with flowing tubing pressure - 2,600 psi.

After perforating there was 75 psi surface shut-in pressure. Then acidized all zones from 11,310 feet to 11,466 feet with 5,000 gallons; maximum pressure - 8,500 psi; 26 ball sealers. Initial shut-in pressure - 4,800 psi; five-minute shut-in pressure - 4,200 psi. After flowing all zones for two days, shut-in tubing pressure - 1,700 psi in 11 hours. No measured flow rate.

Perforated after tubing was displaced with nitrogen. No surface pressure.

4 1/2-inch casing set at 11,600 feet.

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Dockets Nos. 14-82 and 15-82 are tentatively set for May 26 and June 9, 1982. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 12, 1982

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Butter, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for June, 1982, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.
- (2) Consideration of the allowable production of gas for June, 1982, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 7540: (Continued and Readvertised)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Pauly-Anderson-Pritchard, William H. Pauly, and all other interested parties to appear and show cause why the Maloy Well No. 1, located in Unit P, Section 16, Township 29 North, Range 11 West, San Juan County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7538: (Continued and Readvertised)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Francis L. Harvey and all other interested parties to appear and show cause why the Pinkstaff Estate Well No. 2, located in Unit A, Section 29, Township 29 North, Range 10 West, San Juan County, should not be re-entered and plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7566: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Flag-Pedern Oil Co., Principal, National Surety Corporation, and all other interested parties to appear and show cause why four wells, being the Julander No. 1 located in Unit L, Section 34; Julander No. 2 located in Unit I, Section 33; Hargis No. 1 located in Unit G, Section 33; and Hargis No. 2 located in Unit J, Section 33, all in Township 30 North, Range 12 West, San Juan County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7560: (Continued from April 28, 1982, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Charles H. Heisen, Fidelity and Deposit Company of Maryland, Surety, and all other interested parties to appear and show cause why the Crownpoint Well No. 1, located in Unit F, Section 18, Township 18 North, Range 13 West, McKinley County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7542: (Continued from April 14, 1982, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Benson-Montin-Greer Drilling Corporation, Hartford Accident and Indemnity Company, and all other interested parties to appear and show cause why the following wells: Justin No. 1, located in Unit K, Section 6, and the Gallegos Canyon Unit No. 2, located in Unit K, Section 35, both in Township 29 North, Range 12 West, and the Segal No. 1, located in Unit K, Section 10, and the Price No. 1, located in Unit N, Section 15, both in Township 31 North, Range 13 West, San Juan County, should not be plugged and abandoned in accordance with Division-approved plugging programs.

CASE 7567: Application of Harvey E. Yates Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Richardson Unit Area, comprising 1,283.35 acres, more or less, of State and Fee lands in Townships 13 and 14 South, Range 36 East.

CASE 7565: (Continued from April 28, 1982, Examiner Hearing)

Application of Delta Drilling Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the North Mescalero Unit Area, comprising 719.77 acres, more or less, of State, Fee and Federal lands in Townships 9 and 10 South, Range 32 East.

CASE 7568: Application of Petroleum Corp. of Delaware for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Superior Federal Well No. 6 located in Unit N of Section 6, Township 20 South, Range 29 East, East Burton Flat Field, to produce oil from the Strawn formation through tubing and gas from the Morrow formation through the casing-tubing annulus by means of a cross-over assembly.

BEST AVAILABLE COPY



Examiner Hearing - WEDNESDAY - MAY 12, 1982

- CASE 7569: Application of Petroleum Corp. of Delaware for downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Atoka and Morrow production in the wellbores of its Parkway West Unit Well No. 3, located in Unit K of Section 29, and Well No. 10, located in Unit G of Section 27, both in Township 19 South, Range 29 East.
- CASE 7570: Application of J. Cleo Thompson for three unorthodox oil well locations, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for three unorthodox well locations, being 660 feet from the North line and 1330 feet from the West line, 660 feet from the North line and 2630 feet from the East line, and 660 feet from the North line and 1310 feet from the East line, all in Section 2, Township 17 South, Range 30 East, Square Lake Pool.
- CASE 7516: (Continued from March 31, 1982, Examiner Hearing)
- Application of Benson-Montin-Greer for a unit agreement, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the North Canada Ojitos Unit Area, comprising 12,361 acres, more or less, of Jicarilla Apache lands in Township 27 North, Range 1 West.
- CASE 7571: Application of Yates Petroleum Corporation for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface through the Abo formation underlying the SE/4 of Section 9, the SW/4 of Section 10, the NW/4 of Section 15, all in Township 6 South, Range 26 East, each to form a standard 160-acre spacing and proration unit 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 wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells and a charge for risk involved in drilling said wells.
- CASE 7551: (Continued from April 14, 1982, Examiner Hearing)
- Application of Harvey E. Yates Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp through Mississippian formations underlying the E/2 of Section 21, Township 11 South, Range 31 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 7572: Application of Anadarko Production Company for a waterflood expansion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Ballard GSA Waterflood Project by drilling and converting ten wells located in Unit N of Section 5, Units N and P of Section 6, Units F, H, J, and P of Section 7, Units F and N of Section 8, and Unit F of Section 17, all in Township 18 South, Range 29 East, Loco Hills Pool.
- CASE 7573: Application of Anadarko Production Company for a waterflood expansion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its West Square Lake Waterflood Project by the conversion to water injection of five wells located in Units J and N of Section 9, D and H of Section 10, and J of Section 3, all in Township 17 South, Range 30 East.
- CASE 7574: Application of Sun Exploration and Production Company for two non-standard gas proration units and an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of two 160-acre non-standard Jalmat gas proration units comprising the NW/4 of Section 21, for its Boren & Greer Com Well No. 2 in Unit C and the NE/4 of Section 20, for its Boren & Greer Com Well No. 3, to be drilled at an unorthodox location 660 feet from the North line and 940 feet from the East line of said Section 20, all in Township 22 South, Range 36 East. Applicant further seeks rescission of Order No. R-5638.
- CASE 7575: Application of Eagle Oil & Gas Co. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for an unorthodox gas well location for a Wolfcamp-Penn test well to be drilled 1500 feet from the South line and 660 feet from the East line of Section 2, Township 17 South, Range 27 East, the S/2 of said Section 2 to be dedicated to the well.
- CASES 7576 and 7577: Application of Apollo Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in each of the following cases, seeks an order pooling all mineral interests from the surface through the base of the San Andres formation underlying the lands specified in each case, each to form a standard 40-acre oil spacing and proration unit 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 wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells and a charge for risk involved in drilling said wells:
- CASE 7576: NE/4 SW/4 Section 6, Township 19 South, Range 38 East
- CASE 7577: SE/4 SW/4 Section 6, Township 19 South, Range 38 East

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CASE 7578: Application of MGF Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface down through the Seven Rivers formation underlying the SE/4 of Section 31, Township 19 South, Range 39 East, to form a standard 160-acre gas proration unit 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 7579: Application of MGF Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface down through the Seven Rivers formation underlying the N/2 NW/4 of Section 5, Township 20 South, Range 39 East, to form a non-standard 80-acre gas proration unit 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 7580: Application of MGF Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface to the base of the Seven Rivers formation underlying the SW/4 of Section 31, Township 19 South, Range 39 East, to form a standard 160-acre gas proration unit 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 7581: Application of Estoril Producing Corp. for an unorthodox gas well location, Lea 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 South line and 990 feet from the East line of Section 10, Township 23 South, Range 34 East, Antelope Ridge-Morrow Gas Pool, the S/2 of said Section 10 to be dedicated to the well.

CASES 7582 thru 7585: Application of Jack J. Grynberg for compulsory pooling, Chaves County, New Mexico. Applicant, in each of the following cases, seeks an order pooling all mineral interests down through the Abo formation underlying the lands specified in each case, each to form a standard 160-acre gas spacing and proration unit 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 wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells and a charge for risk involved in drilling said wells:

CASE 7582: NW/4 Section 13, Township 6 South, Range 24 East

CASE 7583: NE/4 Section 13, Township 6 South, Range 24 East

CASE 7584: SW/4 Section 13, Township 6 South, Range 24 East

CASE 7585: NW/4 Section 24, Township 6 South, Range 24 East

CASES 7525 thru 7534: (Continued from April 28, 1982, Examiner Hearing)

Application of Jack J. Grynberg for compulsory pooling, Chaves County, New Mexico. Applicant, in each of the following 10 cases, seeks an order pooling all mineral interests down through the Abo formation underlying the lands specified in each case, each to form a standard 160-acre gas spacing and proration unit to be dedicated to a well to be drilled at a standard location thereon. Also to be considered in each case will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells and a charge for risk involved in drilling said wells:

CASE 7525: SW/4 Section 3, Township 5 South, Range 24 East

CASE 7526: NW/4 Section 3, Township 5 South, Range 24 East

CASE 7527: SE/4 Section 3, Township 5 South, Range 24 East

CASE 7528: NW/4 Section 4, Township 5 South, Range 24 East

CASE 7529: NE/4 Section 4, Township 5 South, Range 24 East

CASE 7530: NW/4 Section 11, Township 6 South, Range 24 East

CASE 7531: SW/4 Section 11, Township 6 South, Range 24 East

CASE 7532: SE/4 Section 27, Township 6 South, Range 24 East

CASE 7533: SW/4 Section 27, Township 6 South, Range 24 East

CASE 7534: NW/4 Section 34, Township 6 South, Range 24 East

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CASE 7515: (Continued from April 14, 1982, Examiner Hearing)

Application of Four Corners Gas Producers Association for designation of a tight formation, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Dakota formation underlying all or portions of Townships 26 and 27 North, Ranges 12 and 13 West, Township 28 North, Range 13 West, Township 29 North, Ranges 13 through 15 West, and Township 30 North, Ranges 14 and 15 West, containing 164,120 acres, more or less, as a tight formation pursuant to Section 107 of the Natural Gas Policy Act and 18 CFR Section 271. 701-705.

CASE 7586: Application of Standard Resources Corp. for designation of a tight formation, Chaves and Eddy Counties, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Abo formation underlying all or portions of Township 15 South, Ranges 23 through 25 East, Township 19 South, Range 20 East, and Township 20 South, Range 20 East, all in Chaves County; in Eddy County: Township 16 South, Ranges 21 through 26 East, Township 17 South, Ranges 21, 23, 24, and 25 East, and Township 18 South, Ranges 21, 23, 24 and 25 East, Township 19 South, Ranges 21, 23, and 24 East, and Township 20 South, Ranges 21, 23, and 24 East, containing 460,800 acres, more or less, as a tight formation pursuant to Section 107 of the Natural Gas Policy Act and 18 CFR Section 271. 701-705.

CASE 7587: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, abolishing, and extending vertical and horizontal limits of certain pools in Chaves, Eddy, and Lea Counties, New Mexico:

- (a) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Draper Mill-Wolfcamp Gas Pool. The discovery well is the HNG Oil Company Vaca Draw 16 State Well No. 1 located in Unit E of Section 16, Township 25 South, Range 33 East, NMPM. Said pool would comprise:

TOWNSHIP 25 SOUTH, RANGE 33 EAST, NMPM  
Section 16: W/2

- (b) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the Jabalina-Morrow Gas Pool. The discovery well is the Amoco Production Company Ferro Grande Unit Well No. 1 located in Unit J of Section 6, Township 26 South, Range 35 East, NMPM. Said pool would comprise:

TOWNSHIP 26 SOUTH, RANGE 35 EAST, NMPM  
Section 6: E/2

- (c) ABOLISH the Diamond Mound-Morrow Gas Pool in Chaves and Eddy Counties, New Mexico, as heretofore classified, defined, and described as:

TOWNSHIP 15 SOUTH, RANGE 27 EAST, NMPM  
Section 35: All

TOWNSHIP 15 SOUTH, RANGE 28 EAST, NMPM  
Section 31: E/2

TOWNSHIP 16 SOUTH, RANGE 28 EAST, NMPM  
Section 3: Lots 1 through 16  
Section 4: Lots 1 through 16  
Section 5: Lots 1 through 16  
Section 6: Lots 1, 2, 7, 8, 9, 10, 15, 16, and S/2

- (d) EXTEND the vertical limits of the Diamond Mound-Atoka Gas Pool in Chaves and Eddy Counties, New Mexico, to include the Morrow formation, and redesignate said pool to Diamond Mound-Atoka-Morrow Gas Pool, and extend the horizontal limits of said pool to include acreage from abolished Diamond Mound-Morrow Gas Pool and one additional well as follows:

TOWNSHIP 15 SOUTH, RANGE 27 EAST, NMPM  
Section 35: All

TOWNSHIP 15 SOUTH, RANGE 28 EAST, NMPM  
Section 31: E/2

TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM  
Section 9: S/2

TOWNSHIP 16 SOUTH, RANGE 28 EAST, NMPM  
Section 3: Lots 1 through 16  
Section 4: Lots 1 through 16  
Section 5: Lots 1 through 16  
Section 6: Lots 1, 2, 7, 8, 9, 10, 15, 16, and S/2

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- (e) EXTEND the Burton Flat-Strawn Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 28 EAST, NMPM  
 Section 35: E/2  
 Section 36: N/2

- (f) EXTEND the Crow Flats-Morrow Gas Pool in Eddy County, New Mexico to include therein:

TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM  
 Section 1: All  
 Section 12: N/2

- (g) EXTEND the South Culebra Bluff-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM  
 Section 10: All  
 Section 11: W/2  
 Section 14: W/2  
 Section 15: W/2  
 Section 34: W/2

- (h) EXTEND the South Empire-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM  
 Section 17: W/2

- (i) EXTEND the Golden Lane-Strawn Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 30 EAST, NMPM  
 Section 28: All

- (j) EXTEND the Kennedy Farms-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM  
 Section 10: N/2

- (k) EXTEND the East LaRica-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM  
 Section 36: S/2

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM  
 Section 31: S/2

- (l) EXTEND the Little Box Canyon-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 22 EAST, NMPM  
 Section 18: E/2

- (m) EXTEND the Malaga-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 28 EAST, NMPM  
 Section 11: E/2

- (n) EXTEND the South Millman-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM  
 Section 16: N/2

- (o) EXTEND the East Millman-Queen-Grayburg Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM  
 Section 7: NE/4

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- (p) EXTEND the Millman Strawn Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM  
Section 8: S/2

- (q) EXTEND the West Nadine-Elinabry Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM  
Section 5: SW/4

- (r) EXTEND the West Osado-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 35 EAST, NMPM  
Section 11: S/2  
Section 12: S/2

- (s) EXTEND the Pecos Slope-Abo Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 4 SOUTH, RANGE 24 EAST, NMPM

Section 24: S/2  
Section 25: All  
Section 26: E/2  
Section 35: W/2 and NE/4  
Section 36: N/2

TOWNSHIP 4 SOUTH, RANGE 25 EAST, NMPM

Section 19: SW/4  
Section 30: W/2  
Section 31: NW/4

TOWNSHIP 5 SOUTH, RANGE 24 EAST, NMPM

Section 2: NW/4  
Section 7: All  
Section 8: All  
Section 9: N/2 and SW/4  
Section 16: W/2  
Section 17 thru 20: All  
Section 21: W/2  
Section 29: All  
Section 30: All  
Section 31: N/2  
Section 32: N/2  
Section 33: NW/4

TOWNSHIP 5 SOUTH, RANGE 25 EAST, NMPM

Section 1 thru 5: All  
Section 6: E/2  
Section 7: SW/4 and E/2  
Section 8 thru 12: All  
Section 14 thru 22: All  
Section 23: N/2  
Section 27: N/2  
Section 28 thru 30: All  
Section 31: NE/4  
Section 32: N/2  
Section 33: All  
Section 34: All

TOWNSHIP 6 SOUTH, RANGE 24 EAST, NMPM

Section 2: All  
Section 11 thru 14: All  
Section 22 thru 28: All  
Section 34: E/2  
Section 35: All  
Section 36: All

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Examiner Hearing - WEDNESDAY - MAY 12, 1982

TOWNSHIP 6 SOUTH, RANGE 24 EAST, NMPM

Section 4 thru 6: All  
 Section 7 thru 8: All  
 Section 9: N/2  
 Section 17 thru 20: All  
 Section 29 thru 32: All

TOWNSHIP 7 SOUTH, RANGE 24 EAST, NMPM

Section 1: All  
 Section 2: All  
 Section 3: E/2  
 Section 9 thru 15: All  
 Section 22 thru 27: All  
 Section 34 thru 36: All

TOWNSHIP 7 SOUTH, RANGE 25 EAST, NMPM

Section 6: W/2  
 Section 7: S/2  
 Section 13: SW/4  
 Section 14: S/2  
 Section 15: S/2  
 Section 18 and 19: All  
 Section 20: S/2  
 Section 22 thru 27: All  
 Section 29 thru 32: All  
 Section 34 thru 36: All

TOWNSHIP 7 SOUTH, RANGE 26 EAST, NMPM

Section 5: All  
 Section 6: All  
 Section 7 thru 10: All  
 Section 11: W/2  
 Section 15 thru 17: All  
 Section 18: N/2  
 Section 19 thru 22: All  
 Section 28 thru 32: All

TOWNSHIP 8 SOUTH, RANGE 24 EAST, NMPM

Section 1 through 3: All  
 Section 10: E/2  
 Section 11: All  
 Section 12: All

TOWNSHIP 8 SOUTH, RANGE 25 EAST, NMPM

Section 1 through 12: All  
 Section 13 through 16: N/2

TOWNSHIP 8 SOUTH, RANGE 26 EAST, NMPM

Section 6: W/2

- (c) EXTEND the West Pecos Slope-Abo Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 22 EAST, NMPM

Section 23: SE/4  
 Section 24: S/2 and NE/4  
 Section 25 through 27: All  
 Section 28: E/2

TOWNSHIP 8 SOUTH, RANGE 23 EAST, NMPM

Section 3 through 5: All  
 Section 6: N/2  
 Section 8 through 10: N/2  
 Section 17: W/2  
 Section 18: SE/4  
 Section 19: All  
 Section 20: W/2  
 Section 29: W/2  
 Section 30: All  
 Section 31: All  
 Section 32: W/2

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TOWNSHIP 9 SOUTH, RANGE 23 EAST, NMPM

Section 3: W/2  
Section 4: All  
Section 5: All  
Section 6: E/2  
Section 8: All

- (u) EXTEND the East Red Lake-Queen-Grayburg Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 28 EAST, NMPM

Section 25: E/2 NE/4 and NE/4 SE/4

- (v) EXTEND the Sand Ranch-Morrow Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 10 SOUTH, RANGE 29 EAST, NMPM

Section 26: All

- (w) EXTEND the Sawyer-San Andres Associated Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 10 SOUTH, RANGE 38 EAST, NMPM

Section 4: SW/4

- (x) EXTEND the Tom-Tom-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 31 EAST, NMPM

Section 7: All

- (y) EXTEND the Turkey Track-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM

Section 2: W/2  
Section 7: N/2

- (z) EXTEND the Twin Lakes-San Andres Associated Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 29 EAST, NMPM

Section 18: N/2 SE/4 and SE/4 SE/4

- (aa) EXTEND the South Vacuum-Wolfcamp Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM

Section 16: SE/4

\*\*\*\*\*  
DOCKET: COMMISSION HEARING - MONDAY - MAY 17, 1982

Docket No. 14-82

OIL CONSERVATION COMMISSION - 9 A.M.  
ROOM 205 - STATE LAND OFFICE BUILDING,  
SANTA FE, NEW MEXICO.

CASE 7522: (DE NOVO)

Application of Santa Fe Exploration Co. for an unorthodox gas well location, Eddy County, New Mexico Applicant, in the above-styled cause, seeks approval of an unorthodox location 660 feet from the North and West lines of Section 14, Township 20 South, Range 25 East, Permo-Penn, Strawn, Atoka and Morrow formations, the N/2 of said Section 14 to be dedicated to the well.

Upon application of Chama Petroleum Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

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CASE 7476: (DE NOVO)

Application of Jack J. Grynberg for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down through and including the Abo formation, underlying two 160-acre gas spacing units, being the NE/4 and SE/4, respectively, of Section 12, Township 5 South, Range 24 East, each 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Upon application of Mesa Petroleum Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 7513: (DE NOVO)

Application of Mesa Petroleum Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Abo formation underlying the SE/4 of Section 12, Township 5 South, Range 24 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Upon application of Mesa Petroleum Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

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BEFORE THE OIL CONSERVATION DIVISION

DEPARTMENT OF ENERGY AND MINERALS

STATE OF NEW MEXICO

APPLICATION BY THE PETROLEUM )  
CORPORATION OF DELAWARE FOR )  
DOWNHOLE COMMINGLING, EDDY COUNTY,) )  
NEW MEXICO )

*Rec'd OED*  
*APR 20 1982*  
*Case 7969*

APPLICATION

The Petroleum Corporation, by its undersigned attorneys, hereby makes application for approval of downhole commingling of the Atoka and Morrow formations, and in support thereof would show:

1. Applicant has heretofore drilled its Parkway West Unit No. 10 Well in Unit G, 1,980 feet from the east line and 1,980 feet from the north line of Section 27, and its Parkway West Unit No. 3 Well in Unit G, 1,980 feet from the south line and 1,980 feet from the west line of Section 29, both in Township 19 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.

2. The Parkway West Unit No. 10 Well has been completed with perforations from 11,087 to 11,132 feet beneath the surface, which are classified by the Oil Conservation Division as being within the Atoka formation and also perforations from 11,178 feet to 11,587 feet beneath the surface which are classified as perforations within the Morrow formation. The Parkway West No. 3 well has been completed with perforations from 10,742 feet to 10,760 feet beneath the surface classified by the Oil Conservation Division as being within the Atoka formation and perforations from 11,081 feet to 11,189 feet being perforations within the Morrow formation. The perforations located as specified above in each respective well were performed by the operator in the belief that perforations all were within the Morrow formation. Applicant is of the opinion that notwithstanding the fact that the upper perforations stated above are classified by the Oil Conservation Division as within the Atoka formation, the same are geologically more consistently classified as being

within the Morrow formation and in any event applicant is prepared to show that production taken from these formations and commingled downhole is compatible and producible by way of downhole commingling with no adverse effect on either the formations within which the perforations are specified above or the production to be taken from the respective wells.

3. As to each well, ownership of the zones to be commingled is common, and the fluids produced from both zones are compatible.

4. Approval of the downhole commingling will be in the interest of conservation, prevention of waste and protection of correlative rights.

5. Applicant respectfully requests that this application be set on the May 12, 1982 docket.

Dated this 28th day of April, 1982.

Respectfully submitted,

HINKLE, COX, EATON,  
COFFIELD & HENSLEY

By: 

Conrad E. Coffield  
Attorney for The Petroleum  
Corporation of Delaware

4/20

Case 7569

called in by Conrad Coffield written app to  
follows.

Petroleum Corp of Delaware

deal camp Edley Co.

Superior 7.1 # 6

Unit N

1980 FAL 6-20-1981

prod from Strawn & Marrow formations  
G-Benton 7.1 # 6

~~S/S Sec 6 dedicated.~~

downhole comm Edley Co

Parkway West Unit Well No 5.

Unit K 1980 FAL 29-195-29 E

~~S/S dedicated~~

commingled Atoka - Marrow.

Parkway West

No. 10

Unit G 1980 FAL 27-19-29

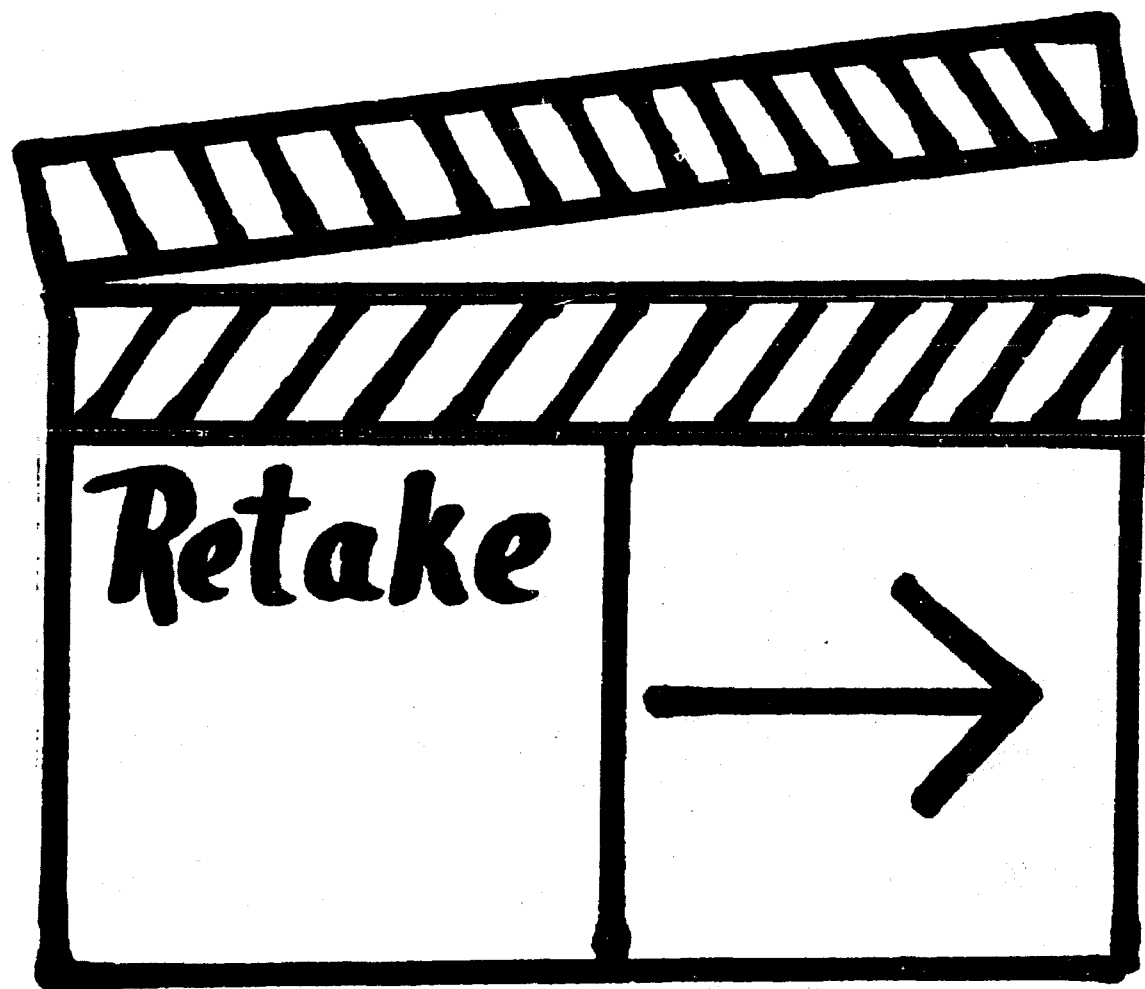
~~S/S ded.~~

commingled Atoka & Marrow.

1 Case

2 wells  
1 Case

THE PRODUCTION OF THIS FILM WAS DELAYED DUE TO:  
A PROBLEM WITH THE FILMING



4/20

Case 7569

called in by Conrad Coffield written app to  
follows.

Petroleum Corp of Delaware

dual camp Eddy Co.

Superior 7.1 H 6

Unit N

1980 FINE 6-205-29 E

annulus bedding  
prod from Strawn & narrow formations  
G-Benton 7.1

~~5/5 sec 6 dedicated.~~

downhole comm Eddy Co

Parkway West Unit 6 Well No 5.

Unit K 1980 FINE 1980 FINE 29-195-29 E

~~5/5 dedicated~~

comm in G. Atoka - narrow.

Parkway West

No. 10

Unit G 1980 FINE 1980 FINE 27-19-29

~~5/5 ded.~~

comm in Atoka & narrow.

1 Case

2 wires

1 Case

*base*

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:

*[Handwritten signature]*

*[Handwritten signature]*

CASE NO. 7569  
Order No. R-6982

*[Handwritten initials]*

APPLICATION OF PETROLEUM CORP. OF  
DELAWARE FOR DOWNHOLE COMMINGLING,  
EDDY COUNTY, NEW MEXICO.

*[Handwritten signature]*

*m.s.*

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on May 12, 1982,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this \_\_\_\_\_ day of May, 1981, 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.

W.N.M.C.F. MICROGRAPHICS



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(2) That the applicant, Petroleum Corp. of Delaware, is the owner and operator of the Parkway West Unit Well No. 3, located in Unit K of Section 29 and the Parkway West Unit Well No. 10, located in Unit G of Section 27, both in Township 19 South, Range 29 East, NMPM, Eddy County, New Mexico

(3) That the applicant seeks authority to commingle Atoka and Morrow production within the wellbore of the above-described wells.

(4) That from the Atoka zone, the subject wells are capable of low marginal production only.

(5) That from the Morrow zone, the subject wells are capable of low marginal production only.

(5) ~~46T~~ That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(6) ~~47T~~ That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(7) ~~48T~~ That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Artesia district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 38 percent and



percent of the commingled ~~production~~ <sup>respectively, in said Well No 3 and</sup> production should be allocated to the Atoka zone, <sup>and</sup> ~~percent of~~ well No 10 with the remainder being allocated to the ~~the commingled~~ production to the Morrow zone.

Morrow zone

(9) (ALTERNATE) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That the applicant, Petroleum Corp. of Delaware, is hereby authorized to commingle Atoka and Morrow production within the wellbores of the Parkway West Unit Well No. 3, located in Unit K of Section 29, and the Parkway West Unit Well No. 10, located in G of Section 27, both in Township 19 South, Range 29 East, NMPM, Eddy County, New Mexico.

(2) (ALTERNATE) That the applicant shall consult with the Supervisor of the Artesia district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.

(2) That 38 percent and 29 percent of the commingled ~~production~~ <sup>production</sup> shall be allocated to the Atoka zone) <sup>respectively, in said Well No 3 and Well No 10 with the</sup> ~~percent of the commingled~~ production shall be allocated to the Morrow zone. remainder being allocated to the Morrow zone.

(3) That the operator of the subject well, shall immediately notify the Division's Artesia district office any <sup>time</sup> the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

F. MICROGRAPHICS

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(4) 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



DOCKET MARKED

Date 4/30/82