CASE NO.

7568

APPlication,
Transcripts,
Small Exhibits,

ETC.

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2	STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT
3	OIL CONSERVATION DIVISION
4	STATE LAND OFFICE BLDG.
4	SANTA FE, NEW MEXICO 1 September 1982
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	EXAMINER HEARING
6	
7	IN THE MATTER OF:
8	Application of Petroleum Corp. of CASE
•	Delaware for a dual completion, 7568 Eddy County, New Mexico.
9	hady councy, new mexico.
10	
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12	
13	BEFORE: Richard L. Stamets
14	
15	TRANSCRIPT OF HEARING
16	
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17	APPEARANCES
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10	
19	For the Oil Conservation W. Perry Pearce, Esq. Division: Legal-Counsel to the Division
20	State Land Office Bldg.
21	Santa Fe, New Mexico 87501
21	
22	
23	For the Applicant: Owen Lopez, Esq.
	HINKLE, COX, EATON, COFFIELD, & HENSLEY
24	500 Don Gaspar
25	Santa Fe, New Mexico 87501
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2	MR. STAMETS: We'll call next Case 7568.
3	MR. PEARCE: That is the application of
4	Petroleum Corporation of Delaware for a dual completion, Eddy
5	County, New Mexico.
6	MR. LOPEZ: Mr. Examiner, my name is Owen
7	Lopez, with the Hinkle Law Firm in Santa Fe, New Mexico, ap-
8	pearing on behalf of the applicant.
. 9	I have one witness to be sworn.
10	
11	(Witness sworn.)
12	
13	LARRY SHANNON
14	BEING called as a witness and being duly sworn upon his oath,
15	testified as follows, to wit:
16	
17	DIRECT EXAMINATION
18	BY MR. LOPEZ:
19	Q Would you please state your name, by whom
20	you're employed, and in what capacity?
21	A. I'm Larry Shannon, employed as the Senior
22	Vice President of Petroleum Corporation of Delaware. I re-
23	side in Dallas, Texas.
24	Q Mr. Shannon, I do believe you are familiar
25	with this case, Number 7568, which has been continued and re-

2 advertised? 3 Yes, sir. Ω In fact, I believe you were a witness at 5 the first hearing. That is correct. 7 MR. LOPEZ: Are the witness' qualifications acceptable? 9 MR. STAMETS: He was so qualified at the 10 first hearing and continues so in this case. 11 MR. LOPEZ: Thank you. 12 Mr. Shannon, I would ask you to refer to 13 what has been marked as Exhibit Number One and describe it, 14 please. 15 This is an exhibit that we gave to you the 16 last time. We just thought it would be handy to have. 17 a schematic showing how the subject well is completed; how 18 we're isolating the Strawn zone from the Morrow zone; the 19 fact that the Strawn is producing through the tubing-casing 20 annulus and the Morrow through the tubing below a packer. 21 Now I'd ask you to refer to what's been 22 marked as EXhibit Number Two and describe this. 23 Exhibit Number Two is a recap of the pro-24 duction from this well by zone. We have all of June, all of 25 July, and August through August 25.

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We list at the top the Morrow zone, it's gas production, oil production, and gas/oil ratio.

We also show the Strawn zone with gas, oil, and gas/oil ratio.

And there is an anomaly for the month of July for the Strawn zone. I don't really know the answer for why the oil production was that low for the month; however, I believe it has something to do with the way that the gas buyer has been purchasing our gas. El Paso is the purchaser of the gas and we've been on proration and they have many ways to prorate us, some of which is raising the line pressure and the line pressure has varied, particularly in July, a high of about 900 pounds and a low of about 500 pounds.

I think that may have had some -- some of the reason for such a low oil production, and it's the only reason I know of, but it is there and we did have a very high GOR for the month of July, and GOR's in the 60,000-to-1 range for the other two months.

Now I'd ask you to refer to what's been marked Exhibit Number Three and identify it.

A. Exhibit Number Three, I apologize for the quality. This is from John West Engineering out of Hobbs. It was a telecopy that we received that we've made Xeroxed copies from.

Basically, on August the 30th, 1982, Mr.
WEst's firm ran a well sounder and found the fluid level in
our Superior Federal No. 6 Well at a depth of 9,672 feet.
That gives 622 feet of fluid above the bottom perforations of
the Strawn. That volume calculates to be 6.26 barrels of
liquid.

If it's oil, the hydrostatic pressure would be in the range of 217 pounds; if it's fresh water, 266 pounds.

There's not a significant amount of back pressure from the liquid we found in the tubing-casing annulus at the time of this well report.

I might add that the well was shut-in from Friday till Monday at the pipeline's request. This time instead of high line pressures they just asked us to shut the well in both zones.

MR. STAMETS: And that shut-in period was preceded this liquid level test?

A. Yes, sir, it did. Well, the well was shut-in Friday and the test was Monday, so it's really three days of shut-in time, which is -- there could have been an accumulation of liquid in that period, vis-a-vis a flowing period.

Q Now, finally I'd ask you to refer to what's been marked Exhibit Four, and I think you've also introduced

this in the earlier exhibit but I'd like you to again explain

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why we re-introduce it at this time.

A. Yes, sir. This is a copy of the open hole log on the subject well. It shows the existing perfor-

ations in the Morrow zone and the existing perforations in the

Strawn zone.

within this log you can see several other zones that have not yet been perforated and will not -- and the reserves will not be depleted until we have produced our current perforations, and one of the reasons that we wanted the dual completion in this well is the significant amount of reserves that you see on this log, plus others, we think there are even other oil and gas reserves above the top of this log, and it may be fifteen years or longer before we could get to those, if we can't at least dually complete the well now.

Q How much was the cost of this original well when you drilled it?

A. This well was drilled last year at a time that drilling costs were high, but it cost us \$1,300,000 to drill and complete the well.

Q Is it your opinion that the continued granting of the application for a dual completion in this case is in the interest of prevention of waste and protection of correlative rights?

Yes, sír.

Q Were Exhibits Four prepared by you or under your supervision?

Yes, sir, they were.

MR. LOPEZ: I'd introduce Exhibits One

through Four.

MR. STAMETS: These Exhibits One through Four introduced today are admitted into evidence.

CROSS EXAMINATION

BY MR. STAMETS:

Mr. Shannon, I understand that you are in the process of running a recombined sample on this well.

A I wanted to talk to you about that, Mr. Examiner, if I may.

We have not yet started that because the well shut-in because the pipeline company shut us in last Friday. We did talk to Mr. Tefteller in Midland, who does a lot of the gathering of the samples that we need to send to CORE Laboratories for the PVT analysis and recombining of gas and liquids.

It is -- it's expensive, about \$7600 - 8000, somewhere in that range. Depending -- the biggest expense seems to be the gathering of the samples more than

2 | CORE Laboratories lab expense.

We'll be happy to do that if it will help our cause. But we're going to have to ask for some time until whenever some -- El Paso opens the well up. It may be another week and then the well would need to stabilize its flow for a week or so before we could start the gathering of the samples.

We wouldn't want to start sample gathering, you know, on the same day that we opened the well up.

MR. LOPEZ: Mr. Examiner, if I may, I might ask Mr. Shannon to explain why he thinks maybe such a test might not be that helpful to the cause.

I think you described earlier what the hydrostatic pressures would be if -- if the results of the test were to show only water or only oil. Then the range would be, I assume, somewhere between the two, if there were a combination of the two. Is that correct, or maybe I don't understand?

That's part of the -- the Sonalog, the well -- the fluid level machine shows that there's very little liquids in the casing at the time we ran it.

We could run another one of these after the well's flowing and a short period after it is shut-in.

If that would help, we -- I guess what I look at, and maybe

I'm not focusing on the area that we want to run the recombin-

í ation, I assume it is to prove retrograde type reservoir where 2 the liquids would be in a gas phase in the original reservoir 3 conditions, which, we could call it a gas well now. MR. STAMETS: Right, it's basically for 5 determination of what type of reservoir we're dealing with. Whether we're dealing with a gas or an oil reservoir. MR. STAMETS: Right. This six barrels in the casing is in all likelihood condensate or oil produced 10 11 under --Sure. 12 MR. STAMETS: -- standard conditions. 13 Well, we can certainly do that, and that's 14 what I -- I did -- we have -- we've looked at this and we 15 didn't stop it because of any other reason other than El Paso 16 17 shut our well in. MR. STAMETS: Okay. What does it cost 18 you to run one of these Sonalogs? 19 I don't know but it's a few hundred dol-20 A. 21 lars is all. MR. STAMETS: Much cheaper. 22 Much cheaper, yes, sir, and we could run 23 24 those quite often, it it would help. All right. What -- what are your options 25 Q.

11 2 if for any reason this application is denied? Well, I guess we'd have to shut the STrawn 3 in and produce the Morrow until such time as we depleted it, 4 plus some other zones in the Morrow, and we could work our 5 way up. It would just make the time frame in which we pro-6 duced the reserves from this wellbore an extremely long period 7 8 of time. Your 4-1/2 inch casing is so small that you can't run another string of tubing in there for the 10 11 Strawn? No, sir, we can't. If it would have been 12 5-1/2 we could have cun two strings. 13 MR. STAMETS: Any other questions of the 14 15 witness? He may be excused. 16 Anything further in this case? The case will be taken under advisement 17 and if there is nothing further, the hearing is adjourned. 18 19 20 (Hearing concluded.) 21 22 23 24 25

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CEPTIFY that the foregoing 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.

Sarayles. Boyd CER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 256 8. heard by me on_

Oli Conservation Division Examiner

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2	STATE OF NEW MEXICO		
3	ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION		
4	STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO		
5	12 May 1982		
_	EXAMINER HEARING		
6			
7	IN THE MATTER OF:		
8	Application of Petroleum Corp. of Delaware for a dual completion, Eddy CASE		
9	County, New Mexico.		
10	and		
11	Application of Petroleum Corp. of Delaware for downhole commingling, CASE		
12	Eddy County, New Mexico5769		
13	BEFORE: Richard L. Stamets		
14			
15	TRANSCRIPT OF HEARING		
16			
17			
	APPEARANCES		
18			
19	Michael Cunningham, Pro Tem For the Oil Conservation W. Perry Pearce, Esq.		
20	Division: Legal Counsel to the Division		
ĺ	State Land Office Bldg. Santa Fe, New Mexico 87501		
21			
22			
23	For the Applicant: Conrad E. Coffield, Esq. HINKLE LAW FIRM		

P. O. Box 3580 Midland, Texas 79701

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to order.

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MR. STAMETS: The hearing will please come

We'll call next Case 7568.

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

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

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

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

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7569.

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

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

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

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

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

MR. COFFIELD: I am Conrad Coffield with the Hinkle Law Firm, appearing on behalf of the applicant.

I have two witnesses in these cases, Mr. Examiner.

(Witnesses sworn.)

1		5
2		HAL DEAN
3	being called as a	witness and being duly sworn upon his oath,
4	testified as foll	ows, to-wit:
5		
6		DIRECT EXAMINATION
7	BY MR. COFFIELD:	
8	Q	Mr. Dean, for the record would you please
9	state your name a	nd address?
10	A.	My name is Hal Dean, Midland, Texas.
11	Q	What is your occupation, Mr. Dean?
12	A	I'm a consulting geologist for Petroleum
13	Corporation.	
14	Q	Have you previously testified before the
15	Division as a geo	logist?
16	A.	Yes, sir.
17	Operati Q	Were your qualifications made a matter of
18	record and accepte	ed by the Division?
19	A .	Yes, sir, they were.
20	Q	Are you familiar with the Petroleum Corpor-
21	ation's application	ons in these cases?
22	A.	Yes, I am.
23	Q	And likewise are you familiar with the
24	geology involved i	n this area?
25	A.	Yes, I am.

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

MR. STAMETS: He is considered qualified.

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

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

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

A. Okay. The applicant 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.

Q Mr. Dean, please refer to what we've marked as Exhibit One in these cases and discuss that exhibit. Explain it, please.

A. Exhibit One is a structure-contour map contoured on the top of the Strawn formation. The Petroleum

2	Corporation's Superior Federal lease is outlined by yellow.
3	At the present time Wells Nos. 3 and Wells No. 4 are producing
1	from the Strawn formation in the Parkway I mean in the
5	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,

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

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

the northeast of 27.

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

As you can notice, those perforations, approximately 250 feet above the New Mexico classification of the Morrow limestone, however, it is below the -- approximately 150 feet below the classification of the Atoka zone producing offsetting the Parkway West Unit.

In examining the log numbered Parkway West

No. 3 --

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

Yeah.

1 9 -- as opposed to the exhibit which is being 2 Q. 3 submitted. Which -- which log are you referring to 5 now? We're at the Parkway West No. 3. 6 A. 7 And this is Exhibit Number Two-B, Mr. Exam-8 Okay, Mr. Dean, you were testifying as to the materials iner. reflected on Exhibit Two-B. 10 Two-B, yes, sir. Okay, go ahead now and explain that to the 11 Examiner. 13 In conjunction with the structure Fine. map on the Morrow formation, immediately north of the Parkway 14 West Unit is the -- what they call the Turkey Track Atoka 16 Field. The wells completed in that zone are indicated on your map in green. They are located in Sections 1, 10, 11, 17 and 13, in 19 South, 29. Also there is one Atoka well com-18 19 pleted in the Parkway West Unit. That is the No. 1 discovery 20 well, located in Section 28. 21 Mr. Dean, are all those wells to which 22 you've made reference, are all those highlighted on Exhibit 23 One~A? 24 Yes, sir. A. 25 Okay, go ahead. Q.

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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.			
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 indicat			
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			

One-A and Two-C, then, please proceed, Mr. Dean.

All right. In the Parkway Unit No. 10 the

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

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

- A. Well --
- Q. Two wells.
- At this time we consider the zones that are producing as Atoka, and classified as Atoka. The zones that were producing in the Petroleum Corporation No. 1, which is immediately at the top of the Atoka, and the Atoka zone producing in Turkey Track No. -- in Turkey Track, we consider those as the Atoka zone.

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

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

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Q Okay.

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

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Q. Okay, then it's your expert opinion, is

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this correct, it's your expert opinion that strictly from

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scientific, geological point of view, that the horizons in-

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volved here in these particular now called two separate hori-

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zons, are in fact geologically the same?

A. Yes, sir.

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Q Okay, now I believe we're ready for you to

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direct your attention to the No. 6 Well, the one that's the

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subject of Case Number 7568, and discuss the geological mat-

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ters in connection with your Exhibit One-A and Exhibit Two-A,

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which is -- I would like for you to please identify and dis-

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cuss with the Examiner.

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A All right. The log which is classified as

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Two-A indicates the perforations in the Morrow, which are

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totally within the Morrow Clastic zone, at 11,177 to basal at 11,254. The Morrow zone is easily identifiable and correlates

22

with the adjacent Morrow producing wells.

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The Strawn formation is present from

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10,282 to 294, and is an algal bank in the upper portion of

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

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

A. That is correct.

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

A. No, sir.

Q Mr. Dean, were these Exhibits One, One-A, and Two-A through Two-C, prepared by you or under your supervision?

A. Yes, they were.

A Ard in your opinion will the approval of the application of Petroleum Corporation in this case, these cases, prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights?

A. Yes.

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

1			4
2		MR. STAMETS: These Exhibits will be a	ıd-
3	mitted.		. 16
4		MR. COFFIELD: And I submit Mr. Dean f	or
5	cross examination.		
6		MR. STAMETS: Are there questions of t	he
7	witness? Mr. Dean	may be excused at this time. We may h	ave
8	some questions for	him later.	
9:	ars to the first of the second		
10		LARRY C. SHANNON	
11	being called as a w	witness and being duly sworn upon his o	ath,
12	testified as follow	ws, to-wit:	4
13			
14		DIRECT EXAMINATION	
15	BY MR. COFFIELD:		
16	Q	Mr. Shannon, for the record would you p	leas
17	state your name and	l address?	
18	A.	Yes. Larry C. Shannon. I live in Dall	as,
19	Texas.		
20	Q.	And what is your occupation and for who	m
21	do you work?		
22		I am a Senior Vice President with Petro	leum
23	Corporation of Delay	ing the second of the second o	
24		Have you previously testified before th	e
25	Division as a petrol		

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1 15 2 Yes, sir, I have. 3 Were your qualifications as an engineer made a matter of record and accepted by the Division? 5 Yes. 6 And are you familiar with Petroleum Cor-7 poration's application in this case? Yes. 9 And are you familiar with the engineering 10 aspects with respect to the wells being considered in these 11 two cases? 12 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 Mr. Shannon, would you go to what we've 17 marked now as Exhibits -- Exhibit Three-A? 18 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

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

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

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

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

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

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

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

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

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

I guess basically Exhibit Three-A --

Q. Okay, with respect, however, to that particular well and the downhole condition of the -- of the well,

Mr. Shannon, would you discuss briefly the situation with

respect to possible pressure problems in connection with the

casing and --

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

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

In the event the application in this case,

and the second s

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

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

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

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

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

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

Q As to this particular well, Mr. Shannon, is it correct that Petroleum Corporation is -- owns or con-

trols the offset acreage?

24 in

in the south half of Section 6, all of Section 5, and through unitization we have the west half of Section 4. We farmed

Yes, sir. We have -- we're the operator

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

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

A. All right.

Q And explain it.

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

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

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

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

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

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

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

Q Okay, is ownership common throughout this entire interval?

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

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

A. Exhibit Three-C is the sketch of the completion procedure for the Parkway West Unit No. 10 Well, the other well that we're asking for permission to commingle.

It's the ore that's in Section 27.

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

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

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

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

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

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

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

A. Yes.

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

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

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? Yes, sir, it does. 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 that such commingling would be damaging to either of the reservoirs or in any way damaging to the matters downhole? 10 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 Were Exhibits Three-A, B, and C prepared 16 by you or under your supervision? 17 Yes, they were. 18 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 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-

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mitted.

3 on direct.

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BY MR. STAMETS:

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CROSS EXAMINATION

ETS:

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

MR. COFFIELD: I have no further questions

All right, sir.

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

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

A The No. 3 Well?

Yes.

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

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

Yes, sir.

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2	Q	What's the volume on that or do y	ou have		
3	a rate yet?				
4	A.	Yes, I think I do. These wells p	roduce		
5	roughly 10 barrels per million, is what most of the Morrow				
6	over here has been. Let's see if I don't have something.				
7		I don't have anything on the No.	10. We		
8	didn't have a separator on it at the time we tested it. I				
9	don't have records	on that. The separator is there	now but		
10	we have not produced the well.				
11	Q	Okay.			
12	A.	And the No. 3 Well, I don't have a	any liqui		
13	ratios on that.				
14	Q.	Looking at the pressures on the No	o. 10 Wel		
15	each of these seem	s to have a variety of pressures, t			
16	zone with an initial pressure of 5400; then				
17	A	No, that's during acidizing.			
18	Q	I see. How about the 45-minute sh	ut-in?		
19	That's after acidizing?				
20	A.	Right, that's after acidizing, yes	eir		
21		Okay, and then it flowed and then			
22	Q tial shut-in after		CHE IIII-		
23			•••		
	A	Yes, sir. But that was after the			
4	had liquids, you know, obviously used to displace the acid,				

and that's -- because these are the initial shut-in pressures.

27 2 Because sometimes I'll put that in there because it's sometimes an indication of permeability. I see. But do you have any formation a 5 pressure information on either of these wells? 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 inidivudal zones. We did not run them. Do you have any indication from nearby Q. 10 wells as to what the pressure should be? 11 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 You say much higher pressure --20 Well, you know, a few hundred pounds, yes, 21 sir. 22 Would you anticipate once the wells go on-23 line that the pressures will equalize quite rapidly? 24 yes, we've seen that. In all the other

wells we perforate more than one zone in this area, I mean

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

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

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

Q Okay.

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

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

A. I -- there's something wrong with that work. We didn't have a good measurement of the liquids.

It's unfortunate. That's what created all of our problems.

Q What are you going to do if you stimulate the Morrow -- or the Strawn in this well and the liquids come 2 back?

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

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

You only have 400,000 a day now.

- A. Yes, sir, that's right.
- Q It doesn't seem like --

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

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

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

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

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

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

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

Q Especially considering we might wish to readvertise this case.

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2	A.	Yes.					
3	Q	I think that might be	an appropriate w	ay			
4	to handle it. Is	the well shut-in at th	nis time in both z	one			
5	A.	Yes, it is. Both zon	nes are shut-in, e	xce			
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 pe	rf I guess we				
11	could produce the Morrow, anyway, could we not?						
12	Q	Yes.	**************************************				
í 3	rajinga sa	There's no problem wi	th it. It's just				
14	the Strawn.						
15	Q	Right. Let's go off	the record a minut	:е.			
16							
17		(There followed discu	ssion off				
18	,	the record.)					
19							
20	,	MR. STAMETS: All righ	it, we'll go back	on			
21	the record.						
22	Q	Mr. Shannon, in light	of the getting th	e			
23	information we need in order to make a rational decision on						
24	this case, might I	suggest that we contir	ue this case for				

about 120 days, or to the first Examiner Hearing in September

1 32 during which time on a test basis you can get this well 2 3 cleaned up and get some additional information? Does that sound acceptable? A. It certainly does. 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 that time. Are there any further questions relative 10 to Case 7569? The witness may be excused. 11 12 Anything further in this case? MR. COFFIELD: No, sir. MR. STAMETS: Or these cases? 14 Case 7569, then, will be taken under ad-15 16 visement. 17 18 (Hearing concluded.) 19 20 21 22 23 24 25

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CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing 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.

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. 156825 9 neard by me on 5 - 17 19 32 | Examiner

Oil Conservation Division

ALL. BOYD, C.S.
Rt. 1 Box 191-8
Sents Pt. 19rw Mexico 87301
Phone (303) 435-7409



STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

TONEY ANAYA

April 25, 1383

POST OFFICE BOX SOME STATE LAND OFFICE BUILDING SANTA FE, NEW MEDICO 87501 (505) 527-5800

Hinkle, Cox, Eaton, Coffield & Hensley	Re: CASE NO. 7568 ORDER NO. R-7269			
Attorneys at Law Post Office Box 2068	Applicant:			
Santa Fe, New Mexico 89501	Petroleum Corp. of Delaware			
Dear Sir:				
Enclosed herewith are two co Division order recently ente	pies of the above-referenced red in the subject case.			
Yours very truly,	$\frac{\sqrt{\epsilon}}{\sqrt{\epsilon}}$			
fex tames				
JOE D. RAMEN Director				
	$\sum_{i \in \mathcal{I}_{i}} \mathcal{I}_{i} \leq \sum_{i \in \mathcal{I}_{i}} \mathcal{I}_{i} \leq \sum_{i$			
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. 7568 Order No. R-7269

APPLICATION OF PETROLEUM CORP. OF DELAWARE FOR A DUAL COMPLETION, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 o'clock a.m. on September 1, 1982, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 25th day of April, 1983, 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, seeks authority to complete its Superior Federal Well No. 6 ocated in Unit N of Section 6, Township 20 South, Range 29 ast, NMPM, Eddy County, New Mexico, as a dual completion (conventional) to produce gas from the Strawn formation through the casing tubing annulus and gas from the Morrow formation through tubing with separation of the two zones to be achieved by means of a packer.
- (3) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.
- (4) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Petroleum Corp. of Delaware is hereby authorized to complete its Superior Federal Well No. 6

-2-**CASE NO. 7568** Order No. R-7269

located in Unit N of Section 6, Township 20 South, Range 29 East, NMPM, East Burton Flat Field, Eddy County, New Mexico, as a dual completion (conventional) to produce gas from the Strawn formation through the casing-tubing annulus and gas from the Morrow formation through tubing with separation of the zones to be achieved by means of a packer set at an approximate depth of 10,710 feet.

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take a packer leakage test upon completion and annually thereafter during the Annual Shut-In Test Period for gas wells in Southeastern New Mexico.

(2) 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

Dockets Nos. 29-82 and 30-82 are tentatively set for September 15 and September 29, 1982. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - THURSDAY - AUGUST 26, 1982

OIL CONSERVATION COMMISSION - 9 A.M. MORGAN HALL, STATE LAND OFFICE BUILDING SANTA FR, NEW MEXICO

- CASE 7656: Application of Cities Service Company for determination of reasonable well costs, Lea County, New Mexico.

 Applicant, in the above-styled cause, pursuant to the provisions of Section 70-2-17 C, NMSA, 1978 Comp.,
 and Paragraph (5) of Division Order No. R-6781, seeks a determination of reasonable well costs for two
 wells drilled under the provisions of said Order No. R-6781 by Doyle Hartman on lands pooled by said
 order.
- CASE 7657: Application of Harvey E. Yates Company for non-rescission of Order No. R-6873, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the non-rescission of Order No. R-6873, which order pooled certain lands to be dedicated to a proposed Ordovician test well to be drilled thereon, being the W/2 of Section 18, Township 9 South, Range 27 East. Said order provided that should the unit well not be drilled to completion, or abandonment, within 120 days after commencement thereof, operator shall appear and show cause why the pooling order should not be rescinded.
- CASE 7658: Application of Harvey E. Yates Company for a dual completion and downhole commingling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Seymour State \$1 located in Section 18, Township 9 South, Range 27 East, in such a manner that Abo perforations from 4912 feet to 4929 feet would be commingled with Upper Atoka perforations from 5926 feet to 5952 feet and the aforesaid intervals dually completed with Lower Atoka perforations from 6008 feet to 6048 feet and produced through parallel strings of tubing.

Docket No. 28-82

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 1, 1982

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

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

CASE 7635: (Continued from August 18, 1982, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit CO2-In-Action, Travelers Indemnity and all other interested parties to appear and show cause why the Trigg Well No. 3 located in Unit J, Section 25, Township 15 North, Range 28 East, San Miguel County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7636: (Continued from August 18, 1982, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit CO₂-In-Action, Travelers Indomnity and all other interested parties to appear and show cause why the Amistad No. 1 located in Unit E of Section 18, and the Amistad No. 2 located in Unit D of Section 7, both in Township 19 North, Range 36 East, Union County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

- CASE 7659: Application of Sun Exploration and Production Company for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Pennsylvanian gas well drilled 660 feet from the North and West lines of Section 21, Township 7 South, Range 26 East, the N/2 of said Section 21 to be dedicated to the well.
- CASE 7660: Application of Pauley Petroleum, Inc. for salt water disposal, Roosevelt County, New Mexico.

 Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from 3862 feet to 3874 feet in its State Well No. 1 located in Unit B of Section 16, Township 7 South, Range 33 East.
- CASE 7661: Application of George Sardella and Gary Plemans for an oil treating plant permit, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the NW/4 NW/4 of Section 33,

 Township 16 South, Range 33 East.

CASE 7630: (Continued from August 4, 1982, Examiner Hearing)

Application of Ralph Nix for an oil treating plant permit, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the 50/4 NE/4 of Section 18, Township 19 South, Range 26 East.

- CASE 7662: Application of Carter Foundation Production Company for a waterflood project, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks authority to expand its Bline-Cade Waterflood Project
 by converting its Mattix Federal Wells Nos. 2, 5, 6, located in Units C, 2, and D, respectively,
 in Section 3, Township 24 South, Range 37 East, by the injection of water into the Queen formation.
- CASE 7639: (Continued from August 18, 1982 Examiner Hearing)

Application of Access Oil Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Wantz Abo, Drinkard and Blinebry Pool production in the wellbore of its S. J. Starkeys Lease Well No. 2, located in Unit B of Section 26, Township 21 South, Range 37 East.

CASE 7663: Application of Dugan Production Corporation for compulsory pooling, San Juan County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota
formation underlying the S/2 of Section 18, Township 30 North, Range 14 West, 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 7568: (Continued and Readvertised)

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 the casing-tubing annulus and gas from the Morrow formation through tubing.

CASE 7651: (Continued from August 18, 1982, Examiner Hearing)

Application of Nortex Gas & Oil Company for the amendment of Order No. R-6903, Lea County, New Mexico. Applicant, in the above-styled cause, sacks the amendment of Division Order No. R-6903 to provide that non-consenting working interest owners shall have thirty days following final adjudication of title in which to pay their proportionate share of well costs.

- CASE 7664: Application of Yatas Petroleum Corporation for a unit agreement, Chaves County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the Little Cuevo Unit Area, comprising 13,407 acres, more or less, of State and Fee lands in Township 17 South, Range 18 East.
- CASE 7655: (Continued from August 18, 1982 Examiner Hearing)

Application of Yatas 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 down through the Abo formation underlying the NW/4 of Section 20, Township 7 South, Range 26 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.

- Application of Harvey E. Yates Company for compulsory pooling, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mississippian formation underlying the N/2 of Section 35, Township 13 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, designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASES 7666, 7667, 7668, and 7669: Application of Yates Petroleum Corporation for compulsory pooling, Chaves County, New Mexico. Applicant, in each of the four 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 proretion 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 7666: SW/4 Section 3;

CASE 7667: NW/4 Section 4:

CASE 7668: NW/4 Section 14;

All of the above being in Township 5 South, Range 24 East and CASE 7669: NW/4 Section 2, Township 9 South, Range 25 East

- CASE 7670: Application of Yates Petroleum Corporation for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order peoling all mineral interests in the Morrow formation underlying the N/2 of Section 26, Township 14 South, Range 27 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 7648: (Continued from August 18, 1982 Examiner Hearing)

Application of Rio Pecos Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the top of the Wolfcamp to the base of the Pennsylvanian formation underlying the W/2 of Section 35. Township 18 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.

- CASE 7642: Application of Doyle Hartman for compulsory pooling, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface through the Jalmat Pool, underlying a previously approved 120-acre non-standard proration unit comprising the S/2 NE/4 and NE/4 NE/4 of Section 20, Township 25 South, Range 37 East, to be dedicated to a well to be drilled at a previously approved unorthodox location. 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 7671: Application of Texas Eastern Developments, Inc. for an exception to Rule 307, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 307 of the Division Rules and Regulations to permit it to draw a vacuum on the Shiprock Gallup Oil Pool reservoir through 16 wells in Sections 16 and 17, Township 29 North, Range 18 West. Applicant further seeks an administrative procedure whereby it could extend the proposed vacuum system to include additional wells in the same reservoir.
- CASE 7649: Application of Southern Union Exploration Company for retroactive exemption, San Juan and Rio Arriba Countiss, Maw Maxico. Applicant, in the above-styled cause, seeks the retroactive exemption from Section 5 of the New Maxico Natural Gas Pricing Act of the following Basin Dakota infill wells: Jicarilla A No. 13-E in Unit N of Section 13 and Jicarilla A No. 10-E in Unit G of Section 23, both in Township 26 North, Range 4 Mest, and Jicarilla K No. 15-E in Unit A of Section 1, Township 25 North, Range 5 West, all in Rio Arriba County, and the Hodges No. 15-E in Unit J of Section 27, Township 26 North, Range 8 West in San Juan County. Also the following Ballard-Pictured Cliffs replacement well in San Juan County: Newson No. 10-E in Unit N of Section 20, Township 26 North, Range 8 West. Each of the aforeseid wells was subject to the New Maxico Natural Gas Pricing Act until exempted from same by the Division on July 23, 1982, and applicant seeks the retroactive exemption of each of said wells to date of first delivery into the pipeline which ranges from December 24, 1980 to January 11, 1982.
- CASE 7672: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, assigning discovery allowable, contracting, and extending certain pools in Chaves, Eddy, Lea, and Roosevelt Counties, New Mexico:
 - (a) CREMTE a new pool in Eddy County, New Mexico, classified as an oil pool for Brushy Canyon production and designated as the Brushy Draw-Brushy Canyon Pool. Further, to assign approximately 25,410 barrels of discovery allowable to the discovery well, the J. C. Williamson UCBHWW Pederal Well No. 1 located in Unit M of Section 25, Township 26 South, Range 29 East, NMFM. Said pool would comprise:

TOWNSHIP 26 SOUTH, RANGE 29 EAST, NORTH Section 25: SW/4

(b) CREATE a new pool in Lea County, New Mexico classified as an oil pool for San Andres production and designated as the Hobbs Channel-San Andres Pool. The discovery well is the Bass Enterprises Production Company Humble City Unit Well No. 1 located in Unit D of Section 36, Township 17 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 37 EAST, NMPM Section 36: NW/4

(c) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the Humphreys Mill-Morrow Gas Pool. The discovery well is the Florida Exploration Company Reno Com Well No. 1 located in Unit D of Section 11, Township 25 South, Range 35 East, NMPM. Said pool would comprise:

TOWNSHIP 25 SOUTH, RANGE 35 EAST, NHPM Section 11: N/2

(d) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Abo production and designated as the Justis-Abo Pool. The discovery well is the Santa Fe Energy Company Carlson 8-25 Federal Well No. 3 located in Unit O of Section 25, Township 25 South, Range 37 East, NRPM. Said pool would comprise:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NHPM Section 25: SE/4

(e) CPEATE a new pool in Eddy County, New Mexico, classified as a gas pool for Upper Pennsylvanian production and designated as the McKillan-Upper Pennsylvanian Gas Pool. The discovery well is the Southland Royalty Company Pecos River Pederal 20 Com Well No. 1 located in Unit J of Section 20, Township 19 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 27 EAST, NMPM Section 20: E/2

(f) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated as the Mosley Canyon-Strawn Gas Pool. The discovery well is W. A. Moncrief, Jr., Jurnegan State Well No. 1 located in Unit C of Section 8, Township 24 South, Range 25 East, NMPM. Said pool would comprise:

TOMBSHIP 24 SOUTH, RANGE 25 EAST, HMPM Section 8: N/2

(g) CREATE a new pool in Lee County, New Mexico, classified as an oil pool for Tubb production and designated as the West Nadine-Tubb Pool. The discovery well is the Tamarack Petroleum Company, Inc. Kornegay A Well No. 1 located in Unit P of Section 9, Township 20 South, Range 38 East, NMPM. Said pool would comprise:

TOMBSHIP 20 SOUTH, RANGE 38 EAST, NORTH Section 9: NM/4

(h) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the Pitchfork Ranch-Morrow Gas Pool. The discovery well is the HNG Oil Company Madera 32 State Com Well No. 1 located in Unit C of Section 32, Township 24 South, Range 34 East, NNPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RHAGE 34 EAST, NMPH Section 32: N/2

(i) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Yeso production and designated as the Seven Rivers-Yeso Pool. The discovery well is Chama Petroleum Corporation Trami Federal Well No. 1 located in Unit N of Section 34, Township 19 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 25 EAST, NMPH Section 34: SW/4

(j) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Abo production and designated as the East Skaggs-Abo Pool. The discovery well is the Texaco Inc. C. H. Weir A Well No. 12 located in Unit G of Section 12, Township 20 South, Range 37 East, NMPH. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NRPH Section 12: NE/4

(k) CREATE a new pool in Lea County, New Maxico, classified as an oil pool for Tubb production and designated as the Teague-Tubb Pool. The discovery well is the Alpha Twenty-One Production Company Lea Well No. 2 located in Unit A of Section 17, Townshp 23 South, Range 37 East, NM . Said pool would comprise:

TOWNSHIP 23 SCUTH, RANGE 37 EAST, NMPM Section 17: NE/4

(1) CEERTE a new pool in Lea County, New Mexico, classified as an oil pool for Devonian production and designated as the Townsend-Devonian Pool. The discovery well is the Kimbark Dil and Gas Company New Hexico 1-4 State Com Well No. 1 located in Unit W of Section 4, Township 16 South, Range 35 East, MBPM. Said pool would comprise:

> TOWNSHIP 16 SOUTH, RANGE 35 EAST, HMPM Section 4: Lots 11, 12, 13, and 14

(m) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Bone Spring production and designated as the Welch-Bone Spring Pool. The discovery well is the Quanah Petroleum, Inc. Hay B Federal Com Well No. 1 located in Unit K of Section 9, Township 26 South, Range 27 East, MMPM. Said pool would comprise:

> TOWNSHIP 26 SOUTH, RANGE 27 EAST, MMPM Section 9: SW/4

(n) CONTRACT the horizontal limits of the Buckeye-Abo Pool in Lea County, New Mexico, by the deletion of the following described area:

> TOWNSHIP 18 SOUTH, RANGE 35 EAST, MOFM Section 3: W/2 NW/4

(a) CONTRACT the horizontal limits of the Vacuus-Abo Reef Pool in Les County, New Mexico, by the deletion of the following described area:

> TOMESHIP 18 SOUTH, RANGE 35 EAST, MEN Section 3: E/2 NM/4

(p) EXTERD the Antelope Sink-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

> TOWNSHIP 19 SOUTH, RANGE 23 EAST, MOPH Section 13: N/2 Section 14: 8/2

(q) EXTEND the West Arkansas Junction-San Andres Pool in Lea County, New Maxico, to include therein:

> TOWNSHIP 18 SOUTH, RANGE 36 EAST, MAPM Section 20: NM/4

(r) EXTEND the Atoka-Yeso Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NIGHT Section 26: E/2

(s) EXTEND the Bilbrey-Morrow Gas Pool in Lee County, New Mexico, to include thereins

> TOWNSHIP 22 SOUTH, RANGE 32 EAST, NHPM Section 5: NM/4 Section 6: E/2

(t) EXTERD the Bunker Hill-Penrose Pool in Eddy County, New Mexico, to include therein

> TOWNSHIP 16 SOUTH, RANGE 31 EAST, NHPM Section 14: N/2 S/2 and NE/4

(u) EXTEND the Cemetery-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

> TOMBEHIP 20 SOUTH, RANGE 25 EAST, MMPH Section 1: S/2 Section 4: All

(v) EXTEND the Comanche Stateline Tansill-Yates-Seven Rivers-Queen Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 36 EAST, NEVPM

Section 26: NW/4
Section 27: NE/4 and E/2 NW/4

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

TOWNSHIP 17 SOUTH, PANCE 28 EAST. NMPH Section 35: \$/2 Section 36: W/2

(x) EXTERN the South Empire-Wolfcamp Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NHPM Section 36: E/2 NE/4

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NHPM Section 31: NW/4 and S/2 ME/4

(y) EXTEND the Porty Miner Ridge-Bone Spring Pool in Eddy County, New Mexico, to include therein:

> TOWNSHIP 23 SOUTH, RANGE 30 EAS?, NMPN Section 16: SE/4

(z) EXTEND the Hardy-Tubb Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPN Section 2: Lots 11, 12, 13, 14, and S/2 Section 11: NM/4

(aa) EXTEND the Hortheast Lowington-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

> TOWNSHIP 16 SOUTH, RANGE 37 EAST, INCH. Section 20: NW/4

(bb) EXTERD the West Milnesand-Pennsylvanian Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 34 EAST, NMPM Section 19: W/2

(cc) EXTEND the South Peterson-Pennsylvanian Associated Pool in Roosevelt County, New Mexico, to include therein:

> TOWNSHIP 5 SOUTH, RANGE 33 EAST, HMPN Section 30: SE/4 Section 31: N/2 NE/4

TOWNSHIP 6 SOUTH, RANGE 33 EAST, NMPM Section 15: S/2

(dd) EXTEND the Race Track-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 10 SOUTH, RANGE 28 EAST, NMPM Section 18: NE/4 and S/2 SE/4

(ee) EXTEND the Ross Draw-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TCHMSHIP 26 SOUTH, RANGE 30 EAST, NHPM Section 23: 5/2 Section 26: N/2

(ff) EXTEND the West Sand Dunes-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM Section 17: 8/2 Section 20: /il

(gg) EXTEND the Saunders Permo-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 33 EAST, NMPM Section 21: NE/4

Occkets 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 data.

DOCKET: EXAMINER MEARING - WEDNESDAY - WAY 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. Nutter, 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 Mo. 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 FlagRedfern 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 14, 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: Dustin 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 Conty, should not be plugged and abandoned in accordance with Division-approved plugging programs.

CASE 7567: Application of Harvey F. 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.

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- 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 Cicarilla Apache Indian 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 3bo 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-styleu 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-5688.
- 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 WolfcampPenn 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.
- 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/C SW/4 Section 6, Township 19 South, Range 38 East

CASE 7577: SE/4 SW/4 Section 6, Township 19 South, Range 38 East

- 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 37 Dast, to form a standard 160-sacra gas promotion unit to be didicated 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 all-cation 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.
- Application of MGF Oil Corporation for compulsory pooling, Lea County, New Nexico.

 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 NM/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 NGF 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, seaks 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-Norrow Gas Pool, the S/2 of said Section 10 to be dedicated to the well.
- CASES 7582 thru 7585: Application of Jack J. Grymberg 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 specing 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 & South, Range 24 East

CASE 7584: SW/4 Section 13, Township & 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 was spacing and provation 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 und a charge '>r risk involved in drilling said wells:

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

CASE 7523: 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, 1962; Examiner Hearing)

Application of Four Corners was Producers Association for designation of a tight formation, San Juan County, New Maxico. Applicant. in the above-styled cause, stake the designation of the Darota formation underlying all or portions of Townships 26 and 27 North; Ranges 12 and 13 West, Jownship 28 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 23 through 26 East, Township 17 South, Ranges 21, 23, 24 and 25 East, Township 18 South, Ranges 21, 23, 24 and 25 East, Township 19 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 Oll Conservation Division on its cwm motion for an order creating, abolishing, and extending vertical and horizontal limits of certain pools in Chaves, Eddy, and Lee Counties, New Mexico:
 - (a) CREATE a new pool in Lea County, New Newloo, 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, NMFM Section 16: W/2

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

TOWESHIP 26 SOUTH, RANGE 35 EAST, MRPM Section 5: E/2

(c) ABOLTSH the Dlamond Nound-Morrow Gas Pool in Chaves and Eddy Counties, New Mexico, as heretofore classified, defined, and described as:

TOWNSHIP 15 SOUTH, RANGE 27 EAST, NMEY. Section 35: All

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

TOWNSHIP 16 SOUTH, RANGE 28 EAST, NYPM
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 5/2

(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 Nound-Morrow Gas Pool and one additional well as follows:

> TOWNSHIP 15 SOUTH, RANGE 27 EAST, NIPH Section 35: All

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

> TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM Section 9: 5/2

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 \$/2

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

TOWNSHIP 20 SOUTH, RANGE 28 EAST, NMFM Section 35: E/2 Section 34: N/2

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

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

(g) EXTLED 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) EXTERD the South Empire-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TUMBSHIP 17 SOUTH, RANGE 29 EAST, NMFM Section 17: N/2

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

> TOWNSHIP 20 SOUTH, RANGE 30 EAST, MOPH Section 70: All

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

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

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

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

> TOURSHIP 18 SCOTE, RANGE 35 CAST, NMPM Section 31: S/2

(1) EXTERD the Little Box Caryon-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

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

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

Section 11: E/2

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

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

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

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NORTH Section 8: 5/2

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

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM Section 5: 50/4

(r) EXTEND the West Osudo-Morrow Gas Pool in Lea County, New Mexico, to include thereint

TOWNSHIP 20 SOUTH, RANGE 35 EAST, MMPM

Section 11: 5/2

Section 12: 5/2

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

TOWNSHIP 4 SOUTS, RANGE 24 EAST, MMPH

Section 24: 5/3

Section 25: All

Section 26: E/2

Section 35: W/2 and NE/4

Section 36: N/2

TOWNSHIP 4 SOUTH, PANCE 25 EAST, INFM

Section 19: 5M/4

Section 30: W/2

Section 31: mm/4

TORMSHIP 5 SOUTH, RANGE 24 EAST, MRPM

Section 2: NW/4

Section 7: All

Section 8: All

Section 9: W/2 and SW/4

Section 16: W/2

Section 17 thru 20: All

Section 21: W/2

Section 28: W/2

Section 29: All

Section 30: All

Section 31: N/2

Section 32: M/2

Section 33: NW/4

TOWESELP 5 SOUTE, PANGE 25 EAST, MMPN

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: 11/2

Section 27: 11/2

Section 28 thru 30: All

Section 31: XE/4

Section 32: W/2

Section 33: All

Section 34: All

TOWNSHIP 6 SOUTH, RANGE 24 EAST, MAPH

Section 2: All

Section 11 thru 14: All

Section 22 thru 28: All

Section 34: E/2

Section 35: All

Section 36: All

- 1 / Sec.

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TOWNSHIP 6 SOUTH, RANGE 26 EAST, MMPH
Section 4 thru 6: All
Section 7 thru 8: All
Section 9: N/2
Section 17 thru 20: All
Section 29 thru 32: All
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TOMESHIP 7 SCUTH, RANGE 24 EAST, HMPM 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 EFST, NMPH Section 6: W/2 Section 7: S/2 Section 13: SW/4 Section 14: S/2 Section 15: 3/2 Section 16 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, HOPPH Section 5: All Section 6: All Section 7 thru 10: All Section 11: W/2 Section 15 thru 17: All Section 18: M/2 Section 19 thru 22: All Section 28 thru 32: All

TOWNSHIP 8 SOUTH, RANGE 24 ZAST, MODEN Section 1 through 3: All Section 10: E/2 Section 11: All Section 12: All

TOWNSRIP 8 SOUTH, RANGE 25 EAST, MOUPH Section 1 through 12: All

Section 13 through 16: 5/2

TOWESHIP 8 SOUTH, RANGE 26 EAST, MMPH Section 6: W/2

(t) ZXTEMD the West Perces Slope-Abo Gas Pool in Chaves County, New Mexico, to include therein:

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TOWNSHIP 8 SOUTH, RANGE 22 EAST, HMPH
Section 23: SE/4
Section 24: S/2 and NE/4
Section 25 through 27: All
Section 28: E/2
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TOWNSHIP 8 SOUTH, PANGE 23 ZAST, IMPM Section 3 through 5: All Section 6: 8/2
Section 8 through 10: N/2
Section 17: 8/2
Section 19: All Section 20: 8/2
Section 29: 8/2
Section 39: All Section 30: All Section 30: All Section 30: All Section 31: All Section 32: 8/2
```

TOWNSHIP 9 SOUTH, RANGE 23 EAST. NMPM

Section 3: W/2 Section 4: All

Section 5: All

Section 6: E/2

Section 3: All

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

> TOWNSHIP 16 SOUTH, RANGE 28 EAST, MMPM 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) EXTERD 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, MMPM Section 7: All

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

TOWESHIP 19 SOUTH, RANGE 29 EAST, NMPM

Section 2: W/2

Section 7: N/2

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

TOWNSHIP 8 SOUTH, RANGE 29 EAST, NHFH
Section 18: M/2 SE/4 and SE/4 SE/4

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

TOWNSRIP 18 SOUTH, RANGE 35 EAST, NHPM Section 16: SE/4

DOCKET: COMMISSION HEARING - HONDAY - MAY 17, 1982

Cocket No. 14-82

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

CASE 7522: (DE HOVO)

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.

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 compulsor/ 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 Mess Petroleum Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

Form Prod OK little drow down

Short lake levels less

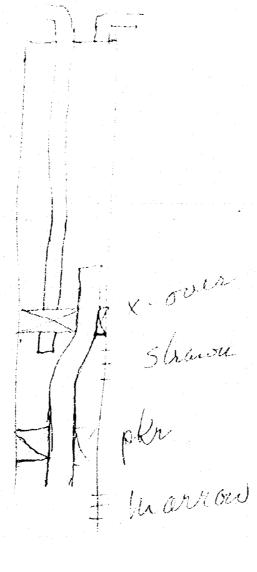
Short fluid sumple

Called Fest 91-82

W.N.M.C.F. MICROGRAPHICS



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W.N.M.C.F. MICROGRAPHICS



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Memo

R.L. STAMETS

To Support Chief
Whis order held to confirm the Strown was Jas. Production records
Show liquids declining
Thru F. 6 1983.

Oil Conservation Division Santa Fe

W.N.M.C.F. MICROGRAPHICS



BEST AVAILABLE COPY

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. 3 CASE NO. 7564 Submitted by

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 tubirdy pressure - 1,750 psi. 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 sufrace flowing pressure. Then killed well and pulled tubing to equip well as shown on the right.

Hearing Date 3/12

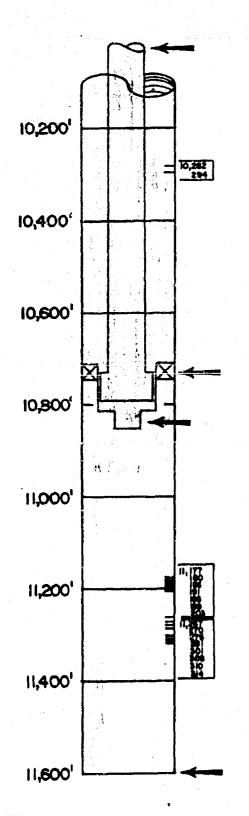
Baker Model DB packer at 10,710 feet.

Landing Nipples

Perforated Morrow from 11,177 feet zone 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.

49 - Inch casing set at 11,600 feet.



THE PETROLEUM CORPORATION

3303 LEE PARKWAY DALLAS, TEXAS 75219

May 10, 1982

SUBJECT: Superior Federal No. 6 Well Sketch Of Completion Procedure BEFORE EXAMINER STANETS
CIL CONSERVATION
Pet.Grp. Exhibit No. /
CASE INC. 7.68
Submitted by L. Shannon

Hearing Date 9-1-82

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 sufrace flowing pressure. Then killed well and pulled tubing to

Baker Model DB packer at 10,710 feet.

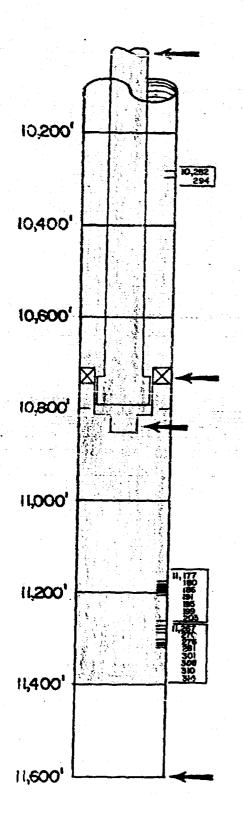
equip well as shown on the right.

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.

4½-inch casing set at 11,600 feet.



SUPERIOR FEDERAL NO. 6 WELL PRODUCTION REPORTS September 1, 1982

(1) (2) (3)

Line No.	Zone	June	July	August (a)
	Morrow Zone			
(1)	Gas	21,715 MCF	32,906 MCF	30,211 MCF
(2)	Oil	243 Bbls.	539 Bbls.	289 Bbls.
(3)	Gas-Oil Ratio	89,362 to 1	61,050 to 1	104,536 to 1
	Strawn Zone			
(4)	Gas	10,121 MCF	11,892 MCF	10,256 MCF
(5)	Oil	151 Bbls.	39 Bbls.	171 Bbls.
(6)	Gas-Oil Ratio	67,026 to 1	304,923 to 1	59,977 to 1

Estimated through August 25, 1982. (a)

> **BEFORE EXAMINER STAMETS** OIL CONSE VATION DIVISION Pet. Corp. EXCISIT NO. 2

CASENO. 1568

Submitted by L. Shannon

Hearing Dale 9-1-82

ajg-365-38, t



JOHN WEST ENGINEERING COMPANY

Alf Mail to his Mails: And America HOLD Magnet Dy 1811

Mr. Mike Langiero The Petroleum Corp. One Marienfield Place Suite 555 Midland, Texas 79701

ME: MANUARINE HATE

THE HER NOT

Bear Sir,

On Monday, Avgust Vi, 1982, or accepted well sounder was used to shoot the fluid level in the captional well. The following results were obtained:

SEOT & 11:45 A.S. 302 Mes. to Coff 15 . 2005 (She 1572 feet to fluid

An average tubing joint length of Mid feet was used to calculate depth to fluid. The tapes are enclosed for voor files.

Respectfully substited,

TOWN WEST ENVIRENCES COMPANY

Am What

BEFORE EXAMINER STAMETS
OIL CONSE VATION DIVISION
POLICERP. EXAIBIT NO. 3

CASE NO. 1568

Submitted by L. Shaman

Hearing Date 9-1-82

THE PETROLEUM CORPORATION

3303 LEE PARKWAY DALLAS, TEXAS 75219 May 10, 1982

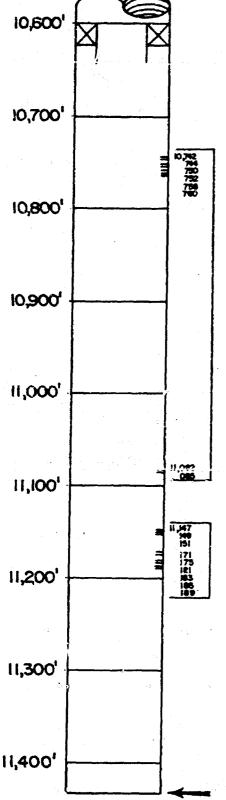
SUBJECT: Parkway West Unit No. 3 Well Sketch Of Completion Procedure

 $\alpha \sim$

DEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 3 18
CASE NO. 1 268 1 7 369
Submitted by Parole Conservation Date

Hearing Dute
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.

THE PETROLEUM CORPORATION

3303 LEE PARKWAY DALLAS, TEXAS 75219

May 10, 1982

SUBJECT: Parkway West Unit No. 10 Well

Sketch Of Completion Procedure

OIL CONSERVATION DIVISION

EXHIBIT NO. 3 C

CASE NO. 1581 7561

Submitted by Datok Corp

Hearing Date 512182

2-3/8-inch tubine

4½-inch casing

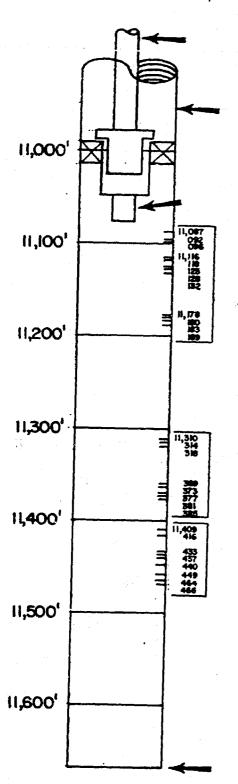
Baker Model CB packer set at 10,990 feet.

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 - 13,475 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.



LAW OFFICES

HINKLE, COX, EATON, COFFIELD & HENSLEY

1000 FIRST NATIONAL BANK BUILDING

LEWIS C. COX® PAUL W. EATON CONRAD E. COFFIELD HAROLD L. HENSLEY JR STUART D. SHANOR® C. O. MARTIN PAUL J. KELLY JR.* JAMES H. ROZARTH DOUGLAS L LUNSFORD* FAUL IL BOILESINON ERNEST R. FINNECJR. J DOUGLAS FOSTER

T. CALDER EZZELL, JR.* WILLIAM B. BURFORD JOHN S. NELSON RICHARD E. OLSON DEBORAH NORWOOD ANDERSON CARTER, II STEVEN D. ARNOLD JEFFREY L BOWMAN JOHN C. HARRISON DAVID I EBDEDE JEFFREY D. HEWETT JAMES BRUCE

POST OFFICE BOX 3580 MIDLAND, TEXAS 79702 (915) 683-4691

August 20, 1982

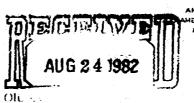
OF COUNSEL CLARENCE E. HINKLE ROY C. SNODGRASS, JR. D. M. CALHOUN

W. E. BONDURANT, JR. (1913-1973) ROBERT A. STONE (1905-1988)

ROSWELL, NEW MEXICO OFFICE 500 HINKLE BUILDING FOST OFFICE BOX IS (505) 622-65:0

PHOT LICENSED IN TEXAS

Mr. Dick Stamets Oil Conservation Division Post Office Box 2088 Santa Fe, New Mexico 87501



ANARILLO, TEXAS OFFICE MERICAN NATIONAL BANK BURDING POST OFFICE BOX IZOSA (806) 372-5569

The Petroleum Corporation of Delaware Application for Dual Completion in Eddy County, New

Mexico, Case No. 7568

Dear Dick:

Per our recent phone conversation, I am transmitting herewith, executed in triplicate, copies of an Application for The Petroleum Corporation of Delaware for dual completion of its Superior Federal No. 6 Well in St Section 6, Township 20 South, Range 29 East, N.M.P.M., Eddy County, New Mexico. Please note that we have requested that this Application be set for hearing on September 1, 1982.

If any additional materials or information are required, please advise.

Very truly yours,

HINKLE, COX, EATON, COFFIELD & HENSLEY

Conrad E. Coffield

CEC:cl

xc: The Petroleum Corporation of Delaware 3303 Lee Parkway Dallas, Texas 75201

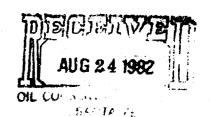
BEFORE THE OIL CONSERVATION DIVISION

Case 1568

DEPARTMENT OF ENERGY AND MINERALS

STATE OF NEW MEXICO

APPLICATION BY THE PETROLEUM CORPORATION OF DELAWARE FOR DUAL COMPLETION EDDY COUNTY, NEW MEXICO)



APPLICATION FOR HEARING

COMES NOW the undersigned as attorney on behalf of The Petroleum Corporation and files this written Application for Hearing to be set on the docket for September 1, 1982 in connection with a continuance of Case No. 7568, as ordered by the Division at a hearing on this matter held on May 12, 1982. In connection therewith, the undersigned, on behalf of The Petroleum Corporation, submits the following data:

- Name of Applicant: The Petroleum Corporation of Delaware
- Area Affected by the Order Sought: 2.

Township 20 South, Range 29 East, N.M.P.M. Eddy County, New Mexico

Section 6: Sk

- General Nature of Order Sought: Applicant seeks authority to dually complete its Superior Federal No. 6 Well located 660 feet from the south line and 1,980 feet from the west line of said Section 4 with said dual completion to be as to the Strawn and Morrow formations, producing oil, gas and liquids therefrom with production to be by way of the dual completion method stated below.
- 4. Other Matters to be Noted in Connection with Order Sought:
 - (a) The production from the Morrow formation (principally oil) will be through the tubing and from the Strawn formation (principally gas) through the casing-tubing annulus.
 - (b) During June 1982,
 - (i) The Strawn formation produced 10,121 mcf of gas and 151 barrels of oil for GOR of 67,026.
 - (ii) The Morrow formation produced 21,715 mcf of gas and 243 barrels of oil for GOR of 89,362.
 - (c) During July 1982,
 - The Strawn formation produced 11,892 mcf of gas and 39 barrels of oil for GOR of 304,923.
 - (ii) The Morrow formation produced 32,906 mcf of gas and 552 barrels of oil for GOR of 59,612.

Dated this 20th day of August, 1982.

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

Conrad E. Coffield

Attorney for The Petroleum

MICROGRAPHICS



AREK COPY

HINKLE, COX, EATON, COFFIELD & HENSLEY APR 3 1982

LEWIS C. COX" PAUL W. EATON CONRAC E. COFFIELD HAROLO L. HENSLEY, JR. RICHARD E. OLSON" STUART D. SHANOR® PAUL J. KELLY JR.* JAMES H. BOZARTH ... JEFFREY L. BOWMAN DOUGLAS L LUNSFORD® ... JOHN C. HARRISON®

PAUL M. BOHANNON

ERNEST R. FINNEY, JR.

J. DOUGLAS FOSTER

T CALDER EZZEUL JR.º WILLIAM B. BURFORD JUNN S. NELSON" DEBORAH NORWOOD ANDERSON CARTER II STEVEN D. ARNOLD DAVID L SPOEDE JEFFREY D. HEWETT JAMES BRUCE

POST OFFICE BOX 3580 MIDLAND, TEXAS 79702 (915) 683-4691

April 28, 1982

CLARENCE E. HINKLE ROY C. SNODGRASS, JR. O. M. CALHCUN

Rec'doco

W. E. BONDURANT, JR. (1913-1973) ROBERT A STONE (1905-1984)

ROSWELL NEW MEXICO OFFICE 600 HINKLE BUILDING 2051 OFFICE BOX IO 505) 622-6510

AMARILLO, TEXAS OFFICE 1700 AMERICAN NATIONAL BANK BUILDING POST OFFICE BOX 12058 (806) 372-5569

NOT LICENSED IN YEXAS

Mr. Dan Nutter Oil Conservation Division Post Office Box 2088 Santa Fe, New Mexico 87501

> Re: The Petroleum Corporation of Delaware Applications for Downhole Commingling and Dual Comoletion

Dear Dan:

I am transmitting herewith, executed in triplicate, copies of an Application for The Petroleum Corporation of Delaware for approval of downhole commingling of the Morrow and Atoka formations in their Parkway West Unit No. 10 Well in Unit G of Section 27, and their and Parkway West Unit No. 3 Well in Unit G of Section 29, both in Township 19 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.

Also transmitted herewith please find, executed in triplicate, copies of an Application for The Petroleum Corporation of Delaware for approval of dual completion affecting St Section 6, Township 20 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.

Per our conversation of several days ago, it is our understanding that these matters will be placed on the docket for May 12, 1982.

If any additional materials or information are required, please advise.

Very truly yours,

HINKLE, COX, EATON, COFFIELD & HENSLEY

CEC:cl

xc: The Petroleum Corporation of Delaware

Conrad E. Coffield

BEFORE THE OIL CONSERVATION DIVISION

DEPARTMENT OF ENERGY AND MINERALS

STATE OF NEW MEXICO

APPLICATION BY THE PETROLEUM)
CORPORATION OF DELAWARE FOR DUAL)
COMPLETION EDDY COUNTY, NEW MEXICO)

Real OCD APR 3 1 1982

Case > 568

APPLICATION FOR HEARING

COMES NOW the undersigned as attorney on behalf of The Petroleum Corporation and files this written Application for Hearing to be set on the docket for May 12, 1982. In connection therewith, the undersigned, on behalf of The Petroleum Corporation, submits the following data:

- 1. Name of Applicant: The Petroleum Corporation of Delaware
- 2. Area Affected by the Order Sought:

Township 20 South, Range 29 East, N.M.P.M. Eddy County, New Mexico

Section 6: Sk

Vi.

- 3. General Nature of Order Sought: Applicant seeks authority to dually complete its Superior Federal No. 6 Well located 660 feet from the south line and 1,980 feet from the west line of said Section 4 with said dual completion to be as to the Strawn and Morrow formations, producing oil, gas and liquids therefrom with production to be by way of the dual completion method stated below.
- 4. Other Matters to be Noted in Connection with Order
 Sought: The production from the Morrow formation will be through
 the annulus and from the Strawn formation will be through the
 tubing.

Dated this 28th day of April, 1982.

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

Bv:

Conrad E. Coffield \Attorney for The Petroleum Corporation of Delaware

Floren Morrow Jan

10121 MCF 11892

GOR 15130 67026 39 304 923

Case 7568

July

21715 32906 243 552

89362 59612

Readu Csq + bg annulus COP Through Tubing Monow

THE PETROLEUM CORPORATION

OF DELAWARE

RECEIVED

ONE MARIENFELD PLACE SUITE 555 MIDLAND, TEXAS 79701

APR 21 1982

April 20, 1982

O. C. D. ARTESTA, OFFICE

NEW MEXICO OIL CONSERVATION COMMISSION P.O. Drawer DD Artesia, N.M. 88210

Dear Bill,

SUPERIOR FEDERAL #6-N, 6-20-29 EDDY COUNTY, N.M.

Enclosed please find the following:

- Letter requesting exception to Rule 107 (d) (3) under Rule 107 (d) (d) (4).
- Letter requesting a non-standard unit with plat.

A plat showing all offset operators.

A list of all offset operators with their addresses.

This well produces, as indicated by 6 Hour Test, at a rate of 2,175 MCFD and 192 BO. The rate of gas movement through the annulus would be \pm 100'/second. This velocity is sufficient to carry all fluids out of the well bore without waste to the reservoir energy. If at a later date, the Strawn cannot flow through the casing without undue use of reservoir energy, then we can install a packer with a X-over to produce Strawn up the tubing and Morrow up the casing.

Thanking you in advance for your consideration of this C-107.

Sincerely yours,

THE PETROLEUM CORPORATION OF DELAWARE

Don Cox District Manager

DC/sk Enclosure

Monrow Kubuke belower

MIDLAND (915) 685-3021

THE PETROLEUM CORPORATION OF DELAWARE

ONE MARIENFELD PLACE SUITE 855 MIDLAND, TEXAS 79701 RECEIVED

APR 21 1982

O. C. D. ARYESIA, OFFICE

LIST OF ALL OFFSET OPERATORS TO THE LEASE THE SUPERIOR FEDERAL #6 IS LOCATED ON:

HNG OIL COMPANY - P.O. Box 2267 - Midland, Texas 79702

Pase 7568

ESTORIL PRODUCING CORPORATION - 11th Floor Vaughn Bldg. - Midland, Texas 79701

EXXON COMPANY USA - P.O. Box 1600 - Midland, Texas 79702

MARATHON OIL COMPANY - P.O. Box 552 - Midland, Texas 79702

TEXAS OIL AND GAS CORPORATION - 900 Wilco Bldg. - Midland, Texas 79701

COQUINA OIL CORPORATION - P.O. Drawer 2960 - Midland, Texas 79702

UNION TEXAS - 1300 Wilco Building - Midland, Texas 79701

YATES PETROLEUM CORP. - 207 South 4th - Artesia, N.M. 88210

THE PETROLEUM CORPORATION OF DELAWARE

ONE MARIENFELD PLACE SUITE 888 MIDLAND, TEXAS 79701

RECEIVED

APR 2 | 1982

O. C. D. ARTESIA, OFFICE

April 20, 1982

NEW MEXICO OIL CONSERVATION COMMISSION P.O. Drawer DD Artesia, N.M. 88210

Case 7568

Dear Bill,

SUPERIOR FEDERAL #6-N, 6-20-29 EDDY COUNTY, N.M.

The Baker Model DB Production Picker in this well is set at 10,710', 467' above our top perforations in the Morrow sand. (Morrow perforated at 11,177' to 11,314' with 19 holes). Since this exceeds the 250' as required in Rule 107 (d)(3), we are asking you to allow an exception to this Rule under Rule 107 (d)(4) ("waste will not be caused thereby").

Thanking you in advance for your consideration.

Sincerely yours,

THE PETROLEUM CORPORATION OF DELAWARE

Don Cox

District Manager

DC/sk

Enclosure

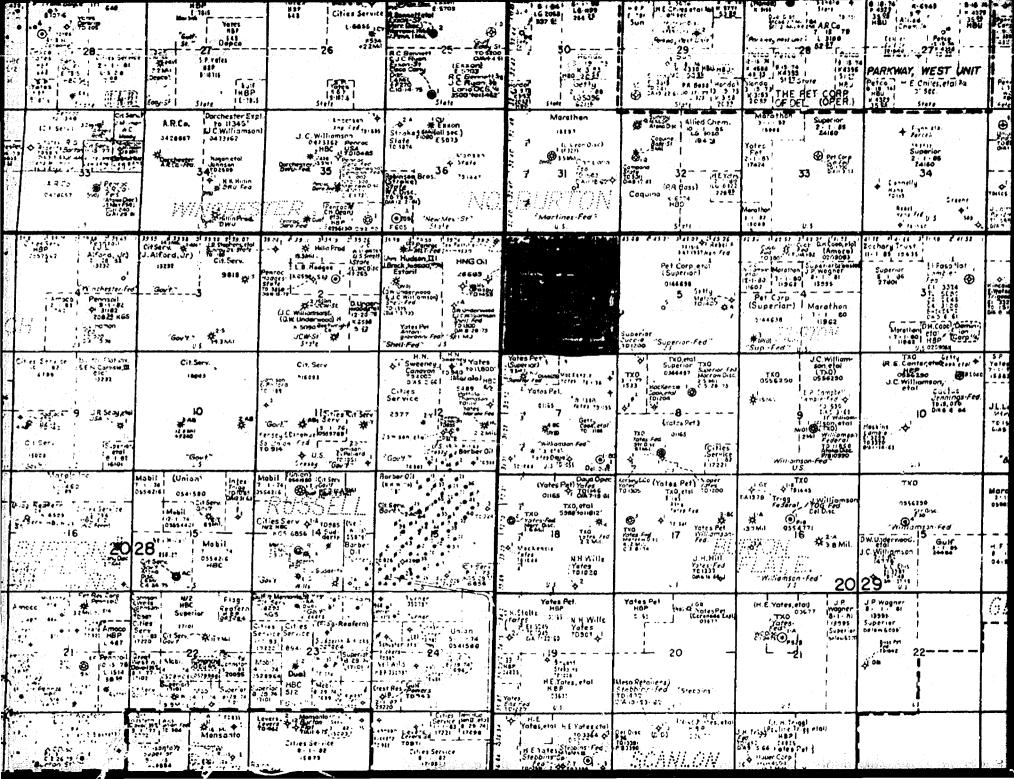
STATE OF NEW MEXICO ENERGY NO MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. DOX 2088

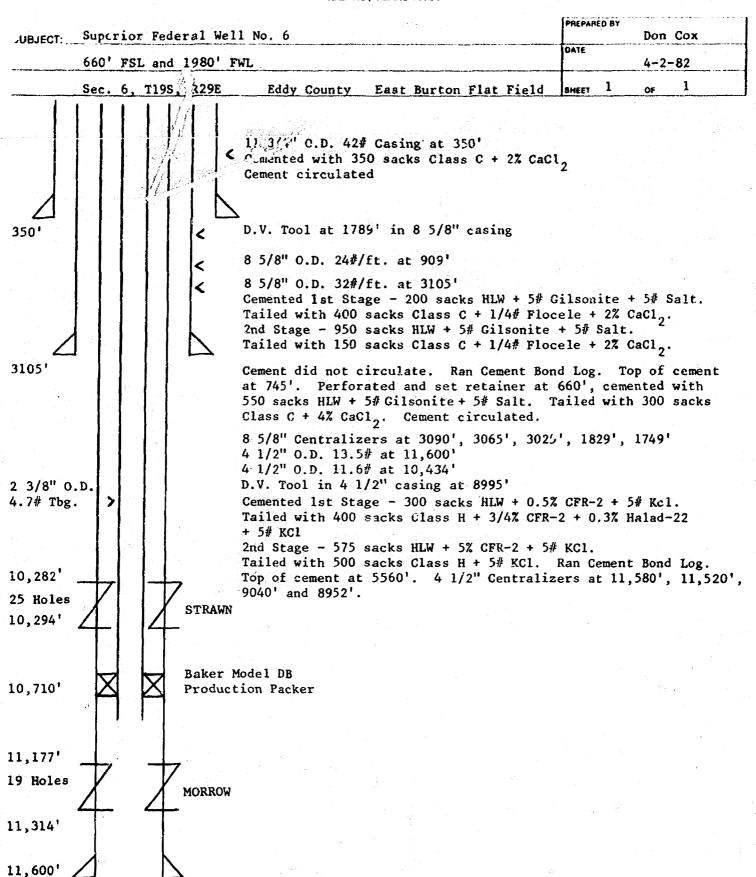
SANTA FE, NEW MEXICO 87501

•	APPLICATION FOR HULTIP	LE COMPLETION	APR 2 1 1982
			O. C. O.
THE PETROLEUM CORPORAT	ION Eddy County	4-20-82 Date	ASTASIA, CARICE
in the state of th		Federal 6	
One Marienfeld Place Suite 555 Superior Federal 6 Address Well No.			
N .	6 205	29E	
Location Unit Se of Well	ection Township	egnaß	
All Applicants for multiple completion must complete Items 1 and 2 below.			
1. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
e. Name of Pool and Formation	East Burton Plat		East Burton Flat (Morrow)
b. Top and Bottom of			
Psy Section (Perforations)	10,282'-10,294'		11,177'-11,314'
c. Type of production (Oil or Gas)	0i1	•	Gas
 d. Hethod of Production (Flowing or Artificial Lift) 	Flowing		Flowing
e. Daily Production Actual X Estimated Oil Bbls. Gas HCF Water Bbls.	3/4" choke 6 Hr. Tes FTP - 150 psi. Oil - 192 BOPD Gas - 2175 MCFPD Water - 0 GOR - 11,333		16/64" choke 6 Hr. Test FTP - 1725 psi. Oil - Nil Gas - 2540 MCF Water - 0
 The following must be attached: Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.) 			
I hereby certify that the information above is true and complete to the best of my knowledge and belief On Cox Title District Manager Date 4-20-82			
(This space for Stave Use			:
Approved by	litle		Date
NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then appeared application for approval of the same should be filed simultaneously with this application. 4/28 Caucal Canada Caffield - advised have their than armular flow for this Strawa all will would would make the instellation eligible acceptable and that in order to make the instellation eligible for approval of the hearing I cald also if to use a crossover. He said the parameters of the said the said the approval of the hearing I cald also if to use a crossover. He said the said the approval of the hearing I cald also if to use a crossover. He said the			
gar approved	Die 30 as &	use 7568	Obu 4/23



THE PETROLEUM CORPORATION

ONE MARIENFELD SUITE 555 MIDLAND, TEXAS 70701



CASE 7566:

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Flag-Redfern 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 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 7568:

CASE 7569:

Application of Petroleum Corp. or 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 gas from the Strawn and Morrow formations the tubing and gas from the Measure formation than the through the casing-tubing annulus and tubing respectively.

By means a a cross-over assembly.

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.

Queed in by Consent Coffield written apply Naturace Corp of Delawrence

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Unit N 6-202-29F

downhoes com. Eddy Co Parkusay let It Clark losed ho 5.

| Unit K 480 150 1180 1106 29-195-29 E

Sport control

2 wreed Commenced ablea-marrows.

Parkway bout 70.10

Unit G 1980 FRE 1980 FEE 27-19-79

commisse atoka fleorer ...

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. 7568

Order No. R-7269

APPLICATION OF PETROLEUM CORP. OF DELAWARE FOR A DUAL COMPLETION, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

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

____day of May, 1992, the Division NOW, on this 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.
- seeks authority to complete its Superior Federal Well No. 6 located in Unit N of Section 6, Township 20 South, Range 29 East, NMPM, Eddy County, New Mexico, as a dual completion (conventional) to produce bit from the Strawn formation through The casing Vuling annulus to the Morrow formation through the strawn and gas from the Morrow formation through the strawn and gas from the Morrow formation through the strawn annulus by means of a cross-over assembly.

 Achieved by means of a packer.
- (3) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.
- (4) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Petroleum Corp. of Delaware is hereby authorized to complete its Superior Federal Well No. 6 located in Unit N of Section 6, Township 20 South, Range 29 East, NMPM, East Burton Flat Field, Eddy County, New Mexico, as a dual completion (conventional) 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 with separation of the many of a packet set are approximately means of a packet set are approximately m

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take a pecker leakes tests upon completion and annually thereafter during the Annual Shut In Southers Vern Hamily Test Period for the Pool. 345 Wells in Southers Vern Hamily

(2) 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

SEAL

DOCKET MARIES