CASE NO.

6498

APPlication, Transcripts, Small Exhibits,

ETC.

Mr. Joe D. Ramey New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Re: Hearing before NMOCC to establish limits for the existing Grama-Ridge Field and show that recent development to North is producing from a different horizon and should be developed under Statewide Rules

Dear Sir:

Reference is made to our hearing request, under the above caption, dated February 15, 1979, in which we requested that a hearing be set to exclude all but certain acreage from the special rules for the Grama-Ridge Morrow Field. It has come to our attention that, since the request was filed, Getty Oil Company has permitted an additional well in Section 35, T-21-S, R-34-E.

Therefore, it is requested that this section be added to the previously described acreage, and that the total area to which the Grama-Ridge Morrow Rules apply be as follows:

CIL CONSERVATION DIVISION

Section 2 T-22-S, R-34-E Section 3 T-22-S, R-34-E Section 4 T-22-S, R-34-E Section 10 T-22-S, R-34-E Section 33 T-21-S, R-34-E Section 34 T-21-S, R-34-E

It is again requested that our application be modified and added to the docket for hearing.

Section 35 T-21-S, R-34-E

Yours very truly,

FOY BOYD ASSOCIATES, INC.

John W. Mulloy

Agent for Pogo Producing Company

JWM:bb Attachment

OFFSET OPERATORS

Pogo Producing Company - State L-921 Lease

Lea County, New Mexico

Wisen Oil Company
P. O. Box 192
Sistersville, West Virginia 26175

Shell Oil Company P. O. Box 1509 Midland, Texas 79702

Hiram W. Keith & Dalton Haines 709 East Austin Kermit, Texas 79745

Thomas B. Catron, III
John S. Catron
P. O. Box 788
Santa Fe, New Mexico 87501

Texas Oil & Gas Corporation 900 Wilco Building Midland, Texas 79701

Sabine Production Company 1200 Mercantile Bank Building Dallas, Texas 75201

Getty Oil Company
P. O. Box 1404
Houston, Texas 77001

Wilson Oil Company & Frances T. Bolton, Deceased DBA Wyoming Oil Company P. O. Box 1297
Santa Fe, New Mexico 87501

Atlantic Richfield Company P. O. Box 2819 Dallas, Texas 75202

Llano, Inc.
P. O. Drawer 1320
Hobbs, New Mexico 88240
Cil. CONSERVATION DIVISION
SANTA FE

GRAMA RIDGE FIELD AREA LEA COUNTY, NEW MEXICO

CASE NO. 6498

March 14, 1979

BOTTOM HOLE PRESSURE COMPARISON

WELL NAME & NO.	OPERATOR	SECT-R	DATE	BHP, psi	DATUM
State L-922 #2	Pogo 🗸	Sec.28,T-21-S,R-34-E	1-29-79	7,102	-9,350
So. Wilson Dp Unit #2	Shell 🗷	Sec.33,T-21-S,R-34-E	12-19-78	4,035 ×	-9,3501
GRB-State #1	Shell 🖊	Sec.34,T-21-S,R-34-E	12-19-78	3,662 K	-9,350'
Getty "1-35" State #1	Getty	Sec.35,T-21-S,R-34-E	1- ? -79	7,460	-9,257'±*
Two State #1	Getty	Sec.2,T-22-S,R-34-E	2-14-78	8,270	-9,412
State Gra Com #1	Shell X	Sec.3,T-22-S,R-34-E	10-2-78	3,066 ¥	-9,350'
Federal "GR" #4-1	Shell 🗶	Sec.4,T-22-S,R-34-E	9-19-78	3,189 🗶	-9,350'

^{*} Estimated from elevation of State L-922 #2 of 3,743'

Pogo Ex 3
Cx 6498

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
State Land Office Building
Santa Fe, New Mexico
14 March 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Pogo Producing Company to limit application of pool rules, Lea County, New Mexico.

CASE 6498

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Lynn Teschendorf, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87503

For the Applicant:

Owen Lopez, Esq.
MONTGOMERY, ANDREWS & HANNAHS
Santa Fe, New Mexico

For Getty Oil Co.:

William F. Carr, Esq. CAMPBELL AND BLACK Jefferson Place Santa Fe, New Mexico

SALLY WALTON BOYF CERTIFIED SHORTHAND REPORTE 1020 Plaza Blanca (505) 471-24 Santa Fe, New Mexico 87501 2

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INDEX

J. W. MULLOY

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Direct Examination by Mr. Lopez

ROBERT O. LYNCH

Direct Examination by Mr. Lopez

Cross Examination by Mr. Nutter

Cross Examination by Mr. Carr

CHRIS BOSECKER

Direct Examination by Mr. Carr 21

Cross Examination by Mr. Nutter

EXHIBITS

Applicant Exhibit One, Plat

Applicant Exhibit Two, Plat

Applicant Exhibit Three, Tabulation

Applicant Exhibit Four, Map

Applicant Exhibit Five, Cross Section

Getty Exhibit One, Cross Section

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MR. NUTTER: Call next Case 6498.

MS. TESCHENDORF: Case 6498. Application of Pogo Producing Company to limit application of pool rules, Lea County, New Mexico.

MR. LOPEZ: Mr. Examiner, my name is Owen Lopez, with Montgomery, Andrews and Hannahs in Santa Fe, appearing on behalf of the applicant, and I have two witnesses to be sworn.

MR. CARR: I'm William F. Carr, Campbell and Black, P. A., Santa Fe, appearing on behalf of Getty Oil Company, and I may have a statement.

(Witnesses sworn.)

J. W. MULLOY

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

DIRECT EXAMINATION

BY MR. LOPEZ:

- Q. Would you please state your name, by whom you're employed, and in what capacity?
- A. I am J. W. Mulloy. I'm employed by For Boyd and Associates, Consulting Engineers, from Midland, Texas, representing Pogo Producing Company.

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Q. Are you familiar with Pogo's application in Case Number 6498?

A. Yes, I am.

Q What is it that the applicant seeks in this case?

A. The applicant seeks to limit the application of the Grama Ridge Morrow Field rules to Sections 2, 3, 4, and 10 of Township 22 South, Range 34 East, and Sections 33, 34, and 35 of Township 21 South, Range 34 East.

Q Have you previously testified before this Division and had your qualifications accepted as a matter of record?

A. Yes, to both questions.

MR. NUTTER: Mr. Mulloy, let me interrupt you at this time.

We got your request for inclusion of Section 35 after the case had been docketed.

A. Yes, sir.

MR. NUTTER: Section 35 is not advertised, so we're without jurisdiction to hear that, so if you please, limit your testimony to 33, 34, in Township 21, 34.

A. Yes, sir.

MR. LOPEZ: Are the qualifications acceptable?
MR. NUTTER: Yes, they are.

Q. (Mr. Lopez continuing.) Would you please

turn to Exhibit -- what has been marked as Applicant's Exhibit Number One, and identify it?

A. Exhibit Number One indicates a lease owner-ship map. It also indicates the previously listed sections, which we were asking that the rules be limited to, and it also includes Section 35, which should now be considered otherwise.

It also shows in yellow, in outlined yellow, the acreage that Pogo Producing Company has either lease or under farmout, which is most of Section 28, the west half of 27, the south half of 21, and all of 29.

Q Okay. Now turn to Exhibit Number Two. Would you please identify it and describe what it shows.

A. Exhibit Number Two is a reproduction of the same map, indicating on that map the available bottom hole pressures from wells in the Grama Ridge Morrow Field.

It can be seen that the four wells in Section 2 -- I mean, i'm sorry, in Section 33, 34, 4, and 3, which is Llano Storage Area, has bottom hole pressures in the range of, well, something less than 4000 in each case.

It is my understanding that they now believe those pressures to be somewhere in the vicinity of 3000 pounds because of withdrawals.

It can be seen that Pogo's well in Section 28 has a bottom hole pressure of 7102 pounds at the same

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datum as the -- as the Llano's storagewells, which we believe is an indication that there is no connection between what at one time was the producing wells in the Grama Ridge Field and what is now Llano's storage area, and the Pogo well in question.

- Q Although these -- this exhibit shows the various bottom hole pressures at a sub-surface depth of about 9350, this does not necessarily represent the actual producing zones discovered by these -- each well, is that correct?
- A. That is correct. These bottom hole pressures were all corrected to a datum of approximately 9300 -- minus 9350 feet to better illustrate the difference in the pressures.
- Q. All right, I ask you to turn to Exhibit
 Three now and identify it.
- A. Exhibit Three is merely a graphical -- or a tabular interpretation of that data, as shown on the Exhibit Two.
- Q. Okay. I notice that on your Exhibit Two there exists a South Wilson Field to the north and east of the section that Pogo's particularly interested in. Do you know what pool rules govern the gas well drilling and proration units in that field?
 - A. That field is governed by the statewide

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Three.

rules, of 320 acres per unit.

Q Now, as an engineer, have you had any experience in New Mexico with respect to development of the Morrow formations?

A. Yes, I have,

Q What is your opinion as a general rule with respect to effective drainage on a 320-acre spacing as opposed to 640 acres?

A. Generally, and this can certainly have exceptions, but generally it is my opinion that one well will not successfully drain 320 acres in a tight, typical Morrow formation.

Q You meant 320 or 640?

A. I'm sorry, 640.

Q. Okay.

MR. NUTTER: You might even apply that to 320's.

Q. Were Exhibits One through Three prepared by you or under your direction and supervision?

A. Yes, they were.

MR. LOPEZ: I'd offer Exhibits One through

 $$\operatorname{MR.}$ NUTTER: Pogo Exhibits One through Three are admitted in evidence.

MR. LOPEZ: I have no further questions.

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MR. NUTTER: Are there any questions of Mr. Mulloy? He may be excused.

MR. LOPEZ: I'd next call Mr. Lynch.

ROBERT Q. LYNCH

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

DIRECT EXAMINATION

BY MR. LOPEZ:

- Would you please state your name, by whom you're employed, and in what capacity?
- I'm Robert O. Lynch. I'm a consulting geologist, at the present time representing Pogo.
 - And where do you reside?
 - 309A Petroleum Building, Midland, Texas.
- Are you familiar with the application of Case Number 6498?
 - Yes. A.
- Have you previously testified before the Division and had your qualifications accepted?
 - No.
- For the benefit of the Hearing Examiner, would you please briefly describe your educational background and employment experience?

÷	A,	I graduat	ed from	Texas	Christi	an Unive	ersity
in Ft.	Worth in	1950 as a	geolog:	ist, ge	eologica	ıl degree	; ;
worked	for W. M.	Moncrief	out of	Ft. Wo	orth for	eleven	years
and sir	nce about	1962 I've	been a	consul	lting ge	ologist	in
Midland	d, Texas.	***	· •				

- Q Who -- who have you primarily consulted for?
- A. At the present time I'm doing consulting work for Mobil out of Houston and Midland; Adobe Oil Company out of Midland; Texas Pacific Oil Company out of Midland; Pogo, of course; and then several smaller individuals, both in Midland and out of town.
- Q. Do you have any memberships in any professional organizations?
- A. I belong to the West Texas Geological Society and also the AAPG.
- Q. Are you familiar with, in your experience as a consulting geologist, does it cover the area of New Mexico under consideration in this application?
 - A. Yes.

MR. LOPEZ: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (Mr. Lopez continuing.) Mr. Lynch, I'd ask you to turn to Exhibit Four, and ask you to identify it and describe what it shows.

A. Well, Exhibit Four is a structural interpretation of the area under consideration, contoured on the top of the Strawn, sometimes called the Permo-Penn. Its main significance, you can see the Pogo well in Section 28, and the well to the south, one mile to the south, in Section 33.

On this horizon the Pogo well is 689 foot low to the well one mile to the south.

Now, this interpretation just shows abnormally steep westward dip. On the Devonian horizon there is a recognized fault in that area, and this abnormally steep dip, while it's due to that Devonian fault, however, another interpretation of this same horizon could geologically be drawn in with the fault, but in this particular case it's rather a moot question because the main purpose is to show that the pick — that the Pogo well is 689 foot low to the well to the south.

Q. Okay. I'll ask you to turn to Exhibit Number Five and identify it and describe what it shows.

 $$\operatorname{MR.\ NUTTER:}$$ Mr. Lynch, what is the top there on the Pogo well?

A. It's a minus -- minus 8789.

MR. NUTTER: Minus 8789.

A. Yes, sir.

MR. NUTTER: And the other one is minus 8100

A. Yes, sir.

MR. NUTTER: Okay.

Q Go ahead,

tion of the Morrow formation, and it's not constructed on a subsea basis, otherwise you could see that the well, the well on the righthand side, labeled Section 28, would be much lower than the one on the lefthand side, labeled Section 33, because at this horizon the Pogo well, which is the Section 28 well, had further gotten lower and it is now 753 foot low to the well in Section 33.

Now, the storage zone on the well to the left, colored in blue, you can see it's all Morrow sand, and they perforated, their top perforation was 13,030, their bottom perforation was 13,260.

Now, those little -- that little lenticular diagram from the well in Section 33 is a reflection of the 70-foot of sand in the upper portion of their Morrow.

The lenticular little zone on the Section 28 is the sand, producing sand, of the Pogo well that was perforated in 13,856 to 13,870, which is a total of 14 foot, and as you can see, the sands are not contiguous from the two bore holes, which is a mile in distance.

Q. In your opinion would one well in Section 28 and one well in Section 21 be capable of draining the

entire 640-acre unit?

In my opinion, I don't think one well could drain 640 in the Morrow formation.

- Q. What is your -- is it your opinion that the normal pool rules covering proration units in New Mexico, namely the 320-acre per well allocation, more efficiently drain the units with which you're concerned?
 - A. Yes, that is correct.
- Q Is it your opinion, looking at this Exhibit Five, that the production in Section 33 is from a different producing sand in the Morrow than the production reflected in Section 28?

A. They're both Morrow sand, but I do believe they are different sands.

Q. Is it your opinion that the granting of this application would be in the interest of the prevention of waste and the protection of correlative rights?

- A. Yes, sir.
- Q. Were Exhibits Five and Six prepared by you or under your supervision?
 - A. Yes, sir.

MR. LOPEZ: I offer Exhibits Five and Six -Four and Five.

MR. NUTTER: Pogo Exhibits Four and Five will be admitted in evidence.

LTON BOYD ITHAND REPORTER CA (605) 471-2462 W Mexico 87601

CROSS EXAMINATION

BY MR. NUTTER:

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Q. Mr. Lynch, what is the heavy black line across this Exhibit Number Five?

A. That's just a correlative marker to hang the two bore holes on; like I said, they're not -- this cross section isn't made to show structure. It's made more to show --

Q Okay, it's just a common marker, then.

A. That's right. It doesn't have anything to do with subsea.

Q Okay. Now, this well in Section 28, as I recall from the previous witness' exhibits as Pogo No. 2, where is Pogo No. 1?

A. There is -- this is the original well.

MR. MULLOY: It was a water well.

MR. NUTTER: It was a water well, for

drilling water?

MR. MULLOY: Yes.

MR. NUTTER: Okay, so the first test -- the record will reflect that Mr. Mulloy is answering the questions, the first test well was the No. 2?

MR. MULLOY: Yes.

MR. NUTTER: Do you have any additional wells

underway at the present time, Mr. Mulloy?

MR. MULLOY: Yes.

MR. NUTTER: Where is that?

MR. MULLOY: In Section 21 to the north.

MR. NUTTER: I see, and that's not shown on your exhibit, however, is it?

MR. MULLOY: No, no, it is not.

MR. NUTTER: Okay.

Are there any other questions of Mr. Lynch?

He may be excused.

MR. CARR: I have a question of the Examiner.

Mr. Nutter, point of clarification, going back to the

question concerning the advertisement, the advertisement

failed to include Section 35.

I represent Getty, who has interests in Section 35, and my understanding is that you feel the Division didn't have jurisdiction to consider that.

I just would like to have that clarified.

As the matter is advertised, it limits the application of the Grama Ridge Morrow Pool rules to only certain sections.

Now, if this application should be granted, it would have the effect of limiting these pool rules in such a way as they would not apply to to interests in Section 35.

Now was it your ruling that you didn't have jurisdiction on that point, and if so, would you so rule?

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I don't think we have any controversy with Pogo. We just want to be certain that when the order comes down, that it doesn't limit the pool rules and in so doing limit them so that Section 35 is governed by other than --

MR. NUTTER: Section 35, as of now, is not in the pool.

MR. CARR: But it is governed by those rules.

MR, NUTTER: But it is governed by the rules. The application is to limit the application of the pool rules. MR. CARR: Uh-huh. Now our question, we just would like to be clear. I don't believe it was the intention of Pogo to in this case attempt to limit the pool rules as they apply to Section 35.

My question is, when you said that the Commission because of they had no jurisdiction there, are we saying that assuming that the order is not going to -- this order will not affect the pool rules in 35?

MR. NUTTER: 35 at present is governed by the pool rules because it's within a mile of the pool. They have asked, or the ad would limit the application of the pool rules to the pool itself, right?

MR. CARR: That's the question.

MR. NUTTER: And not to the one-mile outside the pool.

MR. CARR: That's right, and therefore, it would change the spacing in Section 35 if granted, and we would like just to be able to stipulate with Pogo and have it understood by the Commission that they are not seeking to change that through this application.

MR. LOPEZ: Mr. Examiner, I think Mr. Carr is correct. Pogo's position is completely neutral as to whether or not the pool rules should extend to cover Section 35, and consequently, if it had to be re-advertised, we'd have no objection. Of course, our concern is that the pool rules not extend to Pogo's well in Section 28, or other wells it might drill in this area of interest outside the pool in the north and west.

MR. CARR: And Getty has no objection to that, because we believe that Pogo's well in 28 and their interests in 21, are actually interests in a different Morrow pool.

MR. NUTTER: You recently had a hearing for the creation of a pool over here. Was that -- that was a Bone Springs pool, was it not?

MR. CARR: I don't remember if I was involved in that one or not, Mr. Examiner.

MR. NUTTER: The application was to limit the application of the pool rules to the pool.

Section 35 is not in the pool.

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24 25 MR. CARR: That's correct.

MR. NUTTER: But it's within one mile of the pool, so it would continue to be governed by the pool rules.

MR. CARR: Yes, Mr. Examiner, if you could -you see, this is going to be the subject matter of other cases before you today, and we just want to be very certain that we don't at this time need to put on testimony in this case to prevent an order granting Pogo's application to in effect make the other case moot as to our interest in Section 35 and 36, and eventually Section 1.

We're not trying to be obstructive in this hearing, we just are concerned about the ad and what impact it might have on this acreage.

MR. NUTTER: Well, if we weren't -- if Pogo had not asked for Section 35 to be included, we would still be limiting the application of pool rules to sections that are in the pool. That would be 33, 34, 2, 3, 4, and 10, and Section 35 would not be covered by the pool rules.

MR CARR: Mr. Examiner, would they then be still able to operate under them by virtue of the fact that they are within one mile --

MR. NUTTER: I think the fact it wasn't included in the ad is, although I said we don't have jurisdiction, I don't see how it affects the case, because the application was to limit the application of the pool rules

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to the pool boundary, right?

MR. LOPEZ: That is correct.

MR. NUTTER: Which is Sections 33, 34, 2, 3,

4, and 10.

MR. LOPEZ: Right.

MR. NUTTER: And that is being heard.

That is correct. I think, Mr. MR. LOPEZ: Examiner, if I may, at the time Pogo filed this application the information that we had from Hobbs, because the Getty well was recently completed in 35, was that the pool did not include 35.

Our position, again, is neutral as to whether 35 should be included or not, but I think Mr. Carr's concern is that a literal reading of the application, and if we are successful in getting approval of the application, that Section 35 would thereby be carved out of the Grama Ridge Pool, which I believe he is prepared to resist in subsequent cases that you're to hear.

MR. NUTTER: We had a previous case, the nomenclature case, which had a paragraph (y) for extension of the Grama Ridge Morrow gas pool to include all of 35, Mr. Carr. That was in that previous case.

So, assuming that this would be approved by April 1, Section 35 would be in the Grama Ridge Morrow Pool.

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MR. LOPEZ: Okay, I think we can stipulate to that, Bill. I think we can stipulate the understanding of all of us --

MR. CARR: Okay.

(There followed discussion

off the record.)

MR. NUTTER: Any further questions of Mr. Lynch? Okay, Mr. Carr?

CROSS EXAMINATION

BY MR. CARR:

Q Mr. Lynch, as I understood your testimony, it was directed primarily to the interests of Pogo in Sections 21 and 28, is that correct?

A Yes, sir.

Q And I believe you testified that in your opinion one well in that area would not drain 640 acres.

A. In my opinion I don't think it would.

Q I believe you also testified that you believed they were in a separate Morrow pool from the wells located in the remainder -- or in the Grama Ridge Morrow Pool.

A. In a separate Morrow sand, yes, sir.

Q. Mr. Lynch, how familiar are -- are you familiar with the Getty wells drilled in Section 35 and in Sec-

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tion 2 in the -- on the east side of the Grama Ridge Morrow Pool?

Well, their original -- one of those wells was drilling at the time that Pogo's well was drilling and they went tight at the time of drilling, so I'd have to say, no, I'm not just real familiar with it.

Okay. You do not have anything that would indicate to you, in your opinion, whether or not they would or would not drain 640 acres, is that safe to say?

Yes, sir, just from my experience, I do not think they will drain 640.

In your opinion is it possible that a well could drain 640 acres in the Morrow?

I'm sure there -- I'm sure there are, and I think they would be the exception rather than the rule, though.

MR, CARR: I have no further questions of Mr. Lynch.

MR. NUTTER: Are there any other questions of Mr. Lynch? He may be excused.

Did you have any questions of Mr. Mulloy? MR. CARR: Mr. Nutter, I believe I found out about what I was interested in.

No, I believe at this time, though, with the leave of the Examiner, I would like to call --

MR. NUTTER: Do you have any further testi-2 mony, Mr. Lopez? MR. LOPEZ: No, Mr. Examiner. MR. NUTTER: Mr. Carr? MR. CARR: I'd like to call Mr. Chris Bosecker. 6 I ask that he be sworn. (Mr. Bosecker sworn.) 10 CHRIS BOSECKER being called as a witness and having been duly sworn upon 11 12 his oath, testified as follows, to-wit: 13 14 DIRECT EXAMINATION 15 BY MR. CARR: 16 Will you state your full name for the re-17 cord, please? 18 Chris Bosecker. 19 Mr. Bosecker, where do you reside? 20 Midland, Texas. 21 By whom are you employed and in what posi-22 tion? 23 Getty Oil Company, as the Lead Reservoir 24 Engineer for the Midland E & P District of Getty. 25 Mr. Bosecker, have you previously testified

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before this Commission and had your credentials accepted and made a matter of record?

A. No, I have not.

Q Would you briefly summarize for the Examiner your educational background and your work experience?

A. My educational background is that I have
 a BS in engineering from the University of Oklahoma.

After obtaining that, worked three years for Texaco as an Engineer; varying field assignments working up to an Area Engineer; then worked three years for an independent oil company as the Engineer and really the only professional on the staff for the company; and for the last ten years I've worked in varying assignments with Getty and Skelly Oil Company.

Q Mr. Bosecker, are you familiar with the area which is the subject matter of Pogo's application in Case 6498?

A. Yes, I am.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. (Mr. Carr continuing.) Mr. Bosecker, I would ask that you refer to what has been marked for identification as Getty Exhibit Number One, and explain to the Examiner what it is and what it shows.

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A. This is a 4-well cross section made up of porosity logs, that cut across the Grama Ridge Field, Lea County, New Mexico, and this particular cross section is hung on structure at a datum of a minus 9000 feet.

It shows the top of the Morrow, the Morrow Clastics, and the various sand members included in the Morrow section.

Also, it depicts an interpretation of the geology, primarily of interest to us right now a major, a major down to the basin fault, which intersects somewhere between the Llano gas storage project and the Pogo well in Section 28.

This particular fault has many hundreds of feet of relief.

Q And the net effect of this fault is, as I understand your testimony, to separate the Grama Ridge Morrow from the Morrow sands in Section 28?

A. Yes.

0. Mr. Bosecker, I believe on this cross section is also a log of Getty's No. 35 State No. 1 Well.

A. That is correct.

Q. And were you involved in the drilling of this well?

A. Yes.

Q. How good a well is the Getty State 35?

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A. We consider it to be a very good well. It potentialed for over 11,000,000 cubic feet of gas out of the Morrow.

Q. In your opinion how many acres will this well effectively drain in the Morrow?

A. We'll, we will be presenting testimony later that we feel that this well can drain a full 640-acre proration unit.

Q Can you generally summarize for the Examiner what evidence you intend to put on, or what -- what you base this statement upon?

A. Well, we've drilled two wells so far. There is geological continuity between the wells, based upon the well logs. There is also geological continuity with respect to the type of sand deposit. In other words, it is not felt to be a channel deposit but more of a deltaic or a point bar deposit. Pressure response has been obtained from the one well to the other well and just the deliverability is high enough that we think that it can drain a full 640-acre spacing. Pressure build-up analysis indicates that permeability is equally as good as what the deliverability has been shown to be.

Q. Mr. Bosecker, I believe you heard Mr. Lynch testify that there might be exceptional wells that would drain 640 acres in the Morrow. In your opinion is the Getty

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No. 35 such an exceptional well?

A. Yes, it is.

Q. If the application of Pogo is granted in this case and the pool rules for the Grama Ridge Morrow Pool are limited only to the sections advertised by the Commission, what effect would this have on Getty?

A. Getty has for the last year been very active on the east flank of the Grama Ridge Morrow Field. We have drilled two wells, drilling a third well in Section 36, and plan to drill at least one more well. We feel that to date the information that we've learned, that these wells should be on 640-acre spacing.

Q. Mr. Bosecker, do you have a recommendation to make to the Commission as to how they should treat the application of Pogo in this case?

A. Well, the Pogo well is totally different than the Getty wells or the Llano well, and it lies in a deeper structural position, probably as a result of the fault, as depicted here, and I feel that it's totally a different situation and can be treated differently.

Q. Would you be willing to recommend to the Commission that Sections 21 and 28 be excluded from application of the Grama Ridge Morrow Pool rules?

A. Yes, I would.

Q Was Exhibit Number One prepared by you or

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under your direction and supervision?

A. Yes, it was.

MR. CARR: At this time, Mr. Examiner, I would offer Getty's Exhibit Number One.

MR. NUTTER: Getty Exhibit One will be admitted in evidence.

MR. CARR: I have nothing further on direct.

MR. NUTTER: Are there any questions of
the witness?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Bosecker, I see on your Exhibit Number One here a fault over on the left side, which apparently separates the Pogo well in Section 28 from the Llano well in Section 33, and it looks like there are several hundred feet of throw there on that well.

Do you consider that that fault separates those two wells as far as producing zones are concerned?

- A. Yes, I do, and I think some earlier testimony as far as pressures also substantiate there is no communication between -- between the two wells.
- Q. In other words, you agree with the pressure data that was submitted by the Pogo witness?
 - A. Well, I have no knowledge myself if those

pressures were taken accurately, but I assume that they are, and if they were, there is definitely not communication between the Pogo well and the Llano well, and I think it's accepted throughout the industry that there is a major deep fault, down to the basin fault on the west flank of the anticline.

Q Okay, now we have another fault shown here on your Exhibit Number One, which separates the well in Section 34 from your well in Section 35. Do you think that that fault separates your producing interval from the Llano area in Section 34 and 3?

A. I think that it does, and again, the exhibit that was submitted with respect to pressures tends to bear that out.

Q Well, now I notice on Pogo's Exhibit Three, which is the tabular depiction of pressure, that your Getty 135 State 1 is shown on here, and we have a pressure of 7460 pounds. I don't see the well in Section 2 on here, however.

What was the pressure on it? It is on -- is that the Two State 1? Is it shown on there?

A. Yes. Let me go over here and get the pressure. It's approximately 8400. Do you want the current reservoir pressure taken at the same time as the one on Section 35 or the initial one, taken on --

The initial pressures, I think, are more pertinent.

Okay, just one moment. 8270 psig.

MR. NUTTER: Mr. Mulloy, I notice on your Exhibit Number Two you've converted all of the pressures to a common datum of a minus 9350 with the exception of the two Getty pressures. Did you ever convert those to a common datum there?

MR. MULLOY: No, sir, I don't think so because I -- oh, the reason we -- they were relatively close footagewise and we didn't have the exact gradient to convert those -- convert those pressures. So since they were as close as they were to the gradient of the other wells, we just didn't bother to --

MR. NUTTER: You didn't have the pressure gradients on them. Okay.

MR. MULLOY: Since they were within a few pounds of 9350, anyway; well, 100 pounds in one case and 70-something pounds in another case.

(Mr. Nutter continuing.) Well now, Mr. Bosecker, Mr. Mulloy testified, and possibly also Mr. Lynch testified, that in their opinion these pressure differentials that they had between the LLano storage wells and the Pogo well, the pressure differential was sufficient to show that they were completed in another reservoir. Now your pressures

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are something like two times what Pogo -- or what the Llano storage pressures are.

Would you think that that would indicate that those are in separate reservoirs from the Llano wells?

Yes, I certainly think so. In fact, there is no doubt in my mind. If they were not in a separate reservoir, the pressures should be near equal.

Well, if you're in separate reservoirs, then, do you think the Commission has made a mistake in including Section 2 and now in the nomenclature case today, Section 35, within the horizontal limits of the Grama Ridge Morrow gas pool? If they're in separate reservoirs?

There are several faults, down to the basin faults, in this area in which they have been effective seals as far as reservoir limits, and I think that there is a fault between the two subject acreas, but whether they can be included in one field or not, I don't know that it makes a whole lot of difference.

I think the reservoir characteristics of the storage area which was drilled and completed and depleted by Shell, and the reservoir characteristics that we have now, are basically the same. There is a fault that separates and is a seal between the two areas.

Well, now if you're in a separate reservoir, why do you -- I presume you do -- why would you have objection

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to Llano wanting to change the spacing in the Grama Ridge Morrow Pool?

A. We are not in a separate pool at this time.
We're --

Q You're not in a separate pool but you are in a separate reservoir, is that correct? And if the Commission should establish a pool for your wells and you could substantiate 640-acre spacing, that would take care of you, wouldn't it?

And Llano could reduce the spacing in their portion of the Grama Ridge Morrow Pool to whatever they chose to space their wells.

MR. CARR: Mr. Nutter, we're really getting into the subject matter, it seems to me, of Case 6496 and I think we plan to fully bring that matter up with Llano, and I'm not saying that the question wasn't relevant. I'm just --

Q. Well, what I'm concerned with, we've got this application here to limit the application of --

MR. CARR: That's right.

MR. NUTTER: -- the pool rules to the pool that's productive. Now you have elicited from your witness there testimony that Getty would not have objection to 21 and 28 being developed on 320-acre spacing.

MR. CARR: That's correct.

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MR. NUTTER: But I presume that you would have objection to Sections 35, 36, and 1 being developed on 320-acre spacing, because they are included in the application of Pogo, right?

MR. CARR: Yes, that's correct. We would also object to -- well, yes, that's correct.

MR. NUTTER: So you're opposed to a portion of Pogo's application but not to all of it.

MR. CARR: That is correct. We're not quarreling with Pogo in any way as to their testimony that they may need to develop Section 28 and Section 21 on 320-acre spacing.

MR. NUTTER: Are you quarreling with Llano in Case Number 6497?

MR. CARR: Yes, we are.

MR. NUTTER: With respect to what sections?

MR. CARR: With respect to -- now, Mr.

Nutter, are you talking about the unorthodox location or the rescission of the pool rules? The case you cited --

MR. NUTTER: 6496, I beg your pardon.

MR. CARR: Yes, we are. We're quarreling with them as to the rescinding the pool rules as they apply to Sections 34 and 3.

MR. NUTTER: But yet your witness has stated that there's a fault there and that your wells in 35 and 2

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are completed in another reservoir.

MR. CARR: Yes, sir, they're completed in another reservoir but the characteristics of the two reservoirs are so similar as to merit placing them under the same pool rules, and I think our testimony will show that.

MR. NUTTER: I see. Okay. Are there any questions of Mr. Bosecker now at this time?

MR. LOPEZ: Well --

MR. CARR: Oh, yes, there is one other question I'd like to ask.

Mr. Bosecker, your recommendation to the -or you stated to the Commission that you would recommend
that Sections -- that the Grama Ridge Morrow Gas Pool rules
do not apply to Sections 21 and 28. Would you have any objection to also including in that recommendation Sections
27, 29, and 32?

A. I think basically all of those sections lie on the downthrown side of this fault, similar to the Pogo Producing No. 2 in Section 28.

MR. CARR: So you'd have no objection to also including those in the recommendation?

A. That is correct.

MR. CARR: Now I have nothing further.

MR. NUTTER: You don't have a plat showing the location of the fault in this pool?

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No, I do not.

MR. NUTTER: Are there any other questions of the witness? He may be excused.

Did you have anything further, Mr. Carr?

MR. CARR: Nothing further, Mr. Nutter.

MR. NUTTER: Does anyone have anything they

wish to offer in Case Number 6498?

We'll take the case under advisement.

(Hearing concluded.)

REPORTER'S CERTIFICATE

time of the hearing. ability, knowledge, and skill, from my notes taken at the record of the hearing, prepared by me to the best of my by me; that said transcript is a full, true, and correct Hearing before the Oil Conservation Division was reported CERTIFY that the foregoing and attached Transcript of I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY

Sally W. Boyd, C.S.R.

OII Conservation Division ave exe ni sgnibacconq edit to " I do hereby certify that the foregoing is

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REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is

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Oil Conservation Division

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION State Land Office Building Santa Fe, New Mexico 14 March 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Pogo Producing Company to limit application of pool rules, Lea County, New Mexico.

CASE 6498

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BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Lynn Teschendorf, Esq. Legal Counsel for the Division State Land Office Bldg. Santa Fe, New Mexico 87503

For the Applicant:

Owen Lopez, Esq. MONTGOMERY, ANDREWS & HANNAHS Santa Fe, New Mexico

For Getty Oil Co.:

William F. Carr, Esq. CAMPBELL AND BLACK Jefferson Place Santa Fe, New Mexico

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MR. NUTTER: Call next Case 6498.

MS. TESCHENDORF: Case 6498. Application of Pogo Producing Company to limit application of pool rules, Lea County, New Mexico.

MR. LOPEZ: Mr. Examiner, my name is Owen Lopez, with Montgomery, Andrews and Hannahs in Santa Fe, appearing on behalf of the applicant, and I have two witnesses to be sworn.

MR. CARR: I'm William F. Carr, Campbell and Black, P. A., Santa Fe, appearing on behalf of Getty Oil Company, and I may have a statement.

(Witnesses sworn.)

J. W. MULLOY

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

DIRECT EXAMINATION

BY MR. LOPEZ:

Would you please state your name, by whom a you're employed, and in what capacity?

I am J. W. Mulloy. I'm employed by For Boyd and Associates, Consulting Engineers, from Midland, Texas, representing Pogo Producing Company.

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	Page
	Q. Are you familiar with Pogo's application in
	Case Number 6498?
	A. Yes, I am.
.	Q. What is it that the applicant seeks in this
5	case? A. The applicant seeks to limit the application
6	of the Grama Ridge Morrow Field rules to Sections 2, 3, 4,
7	of the Grama Ridge Hollow and 10 of Township 22 South, Range 34 East, and Sections 33,
8	and 10 of Township 22 South, Range 34 East. 34, and 35 of Township 21 South, Range 34 East.
9	34, and 35 of Township 21 South
10	Division and had your qualifications accepted as a matter
11	Division and had your qualificuous
12	of record?
13	A. Yes, to both questions. MR. NUTTER: Mr. Mulloy, let me interrupt
14	MR. NUTTER: Mr. MULLOY, LEC
15	you at this time.
16	you at this time. We got your request for inclusion of Section
17	35 after the case had been docketed.
18	yes, sir.
19	MR. NUTTER: Section 35 is not advertised,
20	so we're without jurisdiction to hear that, so if you please,
2	testimony to 33, 34, in Township 21, 34.

Yes, sir.

MR. LOPEZ: Are the qualifications acceptable?

(Mr. Lopez continuing.) Would you please

MR. NUTTER: Yes, they are.

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turn to Exhibit -- what has been marked as Applicant's Exhibit Number One, and identify it?

A Exhibit Number One indicates a lease owner-ship map. It also indicates the previously listed sections, which we were asking that the rules be limited to, and it also includes Section 35, which should now be considered otherwise.

It also shows in yellow, in outlined yellow, the acreage that Pogo Producing Company has either lease or under farmout, which is most of Section 28, the west half of 27, the south half of 21, and all of 29.

Q Okay. Now turn to Exhibit Number Two.

Would you please identify it and describe what it shows.

A. Exhibit Number Two is a reproduction of the same map, indicating on that map the available bottom hole pressures from wells in the Grama Ridge Morrow Field.

It can be seen that the four wells in Section 2 -- I mean, i'm sorry, in Section 33, 34, 4, and 3, which is Llano Storage Area, has bottom hole pressures in the range of, well, something less than 4000 in each case.

It is my understanding that they now believe those pressures to be somewhere in the vicinity of 3000 pounds because of withdrawals.

It can be seen that Pogo's well in Section 28 has a bottom hole pressure of 7102 pounds at the same

datum as the --- as the Llano's storagewells, which we believe is an indication that there is no connection between what at one time was the producing wells in the Grama Ridge Field and what is now Llano's storage area, and the Pogo well in question.

Q Although these -- this exhibit shows the various bottom hole pressures at a sub-surface depth of about 9350, this does not necessarily represent the actual producing zones discovered by these -- each well, is that correct?

A. That is correct. These bottom hole pressures were all corrected to a datum of approximately 9300 -- minus 9350 feet to better illustrate the difference in the pressures.

Q All right, I ask you to turn to Exhibit
Three now and identify it.

A. Exhibit Three is merely a graphical -- or a tabular interpretation of that data, as shown on the Exhibit Two.

Q Okay. I notice that on your Exhibit Two there exists a South Wilson Field to the north and east of the section that Pogo's particularly interested in. Do you know what pool rules govern the gas well drilling and proration units in that field?

A. That field is governed by the statewide

SALLY WALTON BOYD	CERTIFIED SHORTHAND REPORTER	8020Plaza Blanca (606) 471-246 Santa Fe, New Mexico 87501
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rules, of 320 ac	cres per	unit.
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0 Now, as an engineer, have you had any experience in New Mexico with respect to development of the Morrow formations?

- A. Yes, I have.
- Q What is your opinion as a general rule with respect to effective drainage on a 320-acre spacing as opposed to 640 acres?

A Generally, and this can certainly have exceptions, but generally it is my opinion that one well will not successfully drain 320 acres in a tight, typical Morrow formation.

- Q You meant 320 or 640?
- A. I'm sorry, 640.
- Q Okay.

MR. NUTTER: You might even apply that to 320's.

- Q. Were Exhibits One through Three prepared by you or under your direction and supervision?
 - A Yes, they were.

MR. LOPEZ: I'd offer Exhibits One through Three.

MR. NUTTER: Pogo Exhibits One through Three are admitted in evidence.

MR. LOPEZ: I have no further questions.

Mulloy?

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MR. NUTTER: Are there any questions of Mr. He may be excused.

MR. LOPEZ: I'd next call Mr. Lynch.

ROBERT O. LYNCH

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

DIRECT EXAMINATION

BY MR. LOPEZ:

- Would you please state your name, by whom Q. you're employed, and in what capacity?
- I'm Robert O. Lynch. I'm a consulting geologist, at the present time representing Pogo.
 - And where do you reside? Q.
 - 309A Petroleum Building, Midland, Texas. A.
- Are you familiar with the application of Q. Case Number 6498?
 - Yes.
- Have you previously testified before the Division and had your qualifications accepted?
 - No. Ā.
- For the benefit of the Hearing Examiner, would you please briefly describe your educational background and employment experience?

	A,	I graduat	ed from	Texa	s Chri	stian	Unive	ersity
in Ft.	Worth in	1950 as a	geolog	ist,	geolog	ical	degree	a ;
worked	for W. M.	. Moncrie	out of	Ft.	Worth	for e	leven	years
and sin	nce about	1962 I've	been a	cons	ulting	geol	ogist	in
Midland	d, Texas.							

- Q Who -- who have you primarily consulted for?
- A. At the present time I'm doing consulting work for Mobil out of Houston and Midland; Adobe Oil Company out of Midland; Texas Pacific Oil Company out of Midland; Pogo, of course; and then several smaller individuals, both in Midland and out of town.
- Q. Do you have any memberships in any professional organizations?
- A. I belong to the West Texas Geological Society and also the AAPG.
- Q. Are you familiar with, in your experience as a consulting geologist, does it cover the area of New Mexico under consideration in this application?

A. Yes.

MR. LOPEZ: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (Mr. Lopez continuing.) Mr. Lynch, I'd ask you to turn to Exhibit Four, and ask you to identify it and describe what it shows.

1,1--

A Well, Exhibit Four is a structural interpretation of the area under consideration, contoured on the top of the Strawn, sometimes called the Permo-Penn. Its main significance, you can see the Pogo well in Section 28, and the well to the south, one mile to the south, in Section 33.

On this horizon the Pogo well is 689 foot low to the well one mile to the south.

Now, this interpretation just shows abnormally steep westward dip. On the Devonian horizon there is a recognized fault in that area, and this abnormally steep dip, while it's due to that Devonian fault, however, another interpretation of this same horizon could geologically be drawn in with the fault, but in this particular case it's rather a most question because the main purpose is to show that the pick — that the Pogo well is 689 foot low to the well to the south.

Q Okay. I'll ask you to turn to Exhibit
Number Five and identify it and describe what it shows.

MR. NUTTER: Mr. Lynch, what is the top there on the Pogo well?

A. It's a minus -- minus 8789.

MR. NUTTER: Minus 8789.

A Yes, sir.

MR. NUTTER: And the other one is minus 8100

A. Yes, sir.

MR. NUTTER: Okay

Q Go ahead.

tion of the Morrow formation, and it's not constructed on a subsea basis, otherwise you could see that the well, the well on the righthand side, labeled Section 28, would be much lower than the one on the lefthand side, labeled Section 33, because at this horizon the Pogo well, which is the Section 28 well, had further gotten lower and it is now 753 foot low to the well in Section 33.

Now, the storage zone on the well to the left, colored in blue, you can see it's all Morrow sand, and they perforated, their top perforation was 13,030, their bottom perforation was 13,260.

Now, those little -- that little lenticular diagram from the well in Section 33 is a reflection of the 70-foot of sand in the upper portion of their Morrow.

The lenticular little zone on the Section 28 is the sand, producing sand, of the Pogo well that was perforated in 13,856 to 13,870, which is a total of 14 foot, and as you can see, the sands are not contiguous from the two bore holes, which is a mile in distance.

Q. In your opinion would one well in Section 28 and one well in Section 21 be capable of draining the

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entire 640-acre unit?

A. In my opinion, I don't think one well could drain 640 in the Morrow formation.

- What is your ... is it your opinion that the normal pool rules covering proration units in New Mexico, namely the 320-acre per well allocation, more efficiently drain the units with which you're concerned?
 - A. Yes, that is correct.
- Q Is it your opinion, looking at this Exhibit Five, that the production in Section 33 is from a different producing sand in the Morrow than the production reflected in Section 28?

They're both Morrow sand, but I do believe they are different sands.

- Q Is it your opinion that the granting of this application would be in the interest of the prevention of waste and the protection of correlative rights?
 - A. Yes, sir.
- Q Were Exhibits Five and Six prepared by you or under your supervision?
 - A. Yes, sir.

MR. LOPEZ: I offer Exhibits Five and Six --Four and Five.

MR. NUTTER: Pogo Exhibits Four and Five will be admitted in evidence.

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CROSS EXAMINATION

BY MR. NUTTER:

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Q. Mr. Lynch, what is the heavy black line across this Exhibit Number Five?

A. That's just a correlative marker to hang the two bore holes on; like I said, they're not -- this cross section isn't made to show structure. It's made more to show ---

Q Okay, it's just a common marker, then.

A That's right. It doesn't have anything to do with subsea.

Q Okay. Now, this well in Section 28, as I recall from the previous witness' exhibits as Pogo No. 2, where is Pogo No. 1?

A. There is -- this is the original well.

MR. MULLOY: It was a water well.

MR. NUTTER: It was a water well, for

drilling water?

MR. MULLOY: Yes.

MR. NUTTER: Okay, so the first test -- the record will reflect that Mr. Mulloy is answering the questions, the first test well was the No. 2?

MR. MULLOY: Yes.

MR. NUTTER: Do you have any additional wells

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underway at the present time, Mr. Mulloy?

MR. MULLOY: Yes.

MR. NUTTER: Where is that?

MR. MULLOY: In Section 21 to the north.

MR. NUTTER: I see, and that's not shown on

your exhibit, however, is it?

MR. MULLOY: No, no, it is not.

MR. NUTTER: Okay.

Are there any other questions of Mr. Lynch?
He may be excused.

MR. CARR: I have a question of the Examiner.

Mr. Nutter, point of clarification, going back to the

question concerning the advertisement, the advertisement

failed to include Section 35.

I represent Getty, who has interests in Section 35, and my understanding is that you feel the Division didn't have jurisdiction to consider that.

As the matter is advertised, it limits the application of the Grama Ridge Morrow Pool rules to only certain sections. Now, if this application should be granted, it would have the effect of limiting these pool rules in such a way as they would not apply to to interests in Section 35.

Now was it your ruling that you didn't have jurisdiction on that point, and if so, would you so rule?

MR. NUTTER: But it is governed by the rules.

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I don't think we have any controversy with Pogo. We just want to be certain that when the order comes down, that it doesn't limit the pool rules and in so doing limit them so that Section 35 is governed by other than --

MR. NUTTER: Section 35, as of now, is not in the pool.

MR. CARR: But it is governed by those rules.

The application is to limit the application of the pool rules MR. CARR: Uh-huh. Now our question, we just would like to be clear. I don't believe it was the intention of Pogo to in this case attempt to limit the pool rules as they apply to Section 35.

My question is, when you said that the Commission because of they had no jurisdiction there, are we saying that assuming that the order is not going to -- this order will not affect the pool rules in 35?

MR. NUTTER: 35 at present is governed by the pool rules because it's within a mile of the pool. They have asked, or the ad would limit the application of the pool rules to the pool itself, right?

MR. CARR: That's the question.

MR. NUTTER: And not to the one-mile outside the pool.

MR. CARR: That's right, and therefore, it would change the spacing in Section 35 if granted, and we would like just to be able to stipulate with Pogo and have it understood by the Commission that they are not seeking to change that through this application.

MR. LOPEZ: Mr. Examiner, I think Mr. Carr is correct. Pogo's position is completely neutral as to whether or not the pool rules should extend to cover Section 35, and consequently, if it had to be re-advertised, we'd have no objection. Of course, our concern is that the pool rules not extend to Pogo's well in Section 28, or other wells it might drill in this area of interest outside the pool in the north and west.

MR. CARR: And Getty has no objection to that, because we believe that Pogo's well in 28 and their interests in 21, are actually interests in a different Morrow pool.

MR. NUTTER: You recently had a hearing for the creation of a pool over here. Was that -- that was a Bone Springs pool, was it not?

MR. CARR: I don't remember if I was involved in that one or not, Mr. Examiner.

MR. NUTTER: The application was to limit the application of the pool rules to the pool.

Section 35 is not in the pool.

MR. CARR: That's correct.

MR. NUTTER: But it's within one mile of the pool, so it would continue to be governed by the pool rules.

MR. CARR: Yes, Mr. Examiner, if you could you see, this is going to be the subject matter of other
cases before you today, and we just want to be very certain
that we don't at this time need to put on testimony in this
case to prevent an order granting Pogo's application to in
effect make the other case moot as to our interest in Section 35 and 36, and eventually Section 1.

We're not trying to be obstructive in this hearing, we just are concerned about the ad and what impact it might have on this acreage.

MR. NUTTER: Well, if we weren't -- if Pogo had not asked for Section 35 to be included, we would still be limiting the application of pool rules to sections that are in the pool. That would be 33, 34, 2, 3, 4, and 10, and Section 35 would not be covered by the pool rules.

MR CARR: Mr. Examiner, would they then be still able to operate under them by virtue of the fact that they are within one mile --

MR. NUTTER: I think the fact it wasn't included in the ad is, although I said we don't have jurisdiction, I don't see how it affects the case, because the application was to limit the application of the pool rules

to the pool boundary, right?

MR. LOPEZ: That is correct.

MR. NUTTER: Which is Sections 33, 34, 2, 3, 4, and 10.

MR. LOPEZ: Right.

MR. NUTTER: And that is being heard.

MR. LOPEZ: That is correct. I think, Mr. Examiner, if I may, at the time Pogo filed this application the information that we had from Hobbs, because the Getty well was recently completed in 35, was that the pool did not include 35.

Our position, again, is neutral as to whether 35 should be included or not, but I think Mr. Carr's concern is that a literal reading of the application, and if we are successful in getting approval of the application, that Section 35 would thereby be carved out of the Grama Ridge Pool, which I believe he is prepared to resist in subsequent cases that you're to hear.

MR. NUTTER: We had a previous case, the nomenclature case, which had a paragraph (y) for extension of the Grama Ridge Morrow gas pool to include all of 35, Mr. Carr. That was in that previous case.

So, assuming that this would be approved by April 1, Section 35 would be in the Grama Ridge Morrow Pool.

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MR. LOPEZ: Okay, I think we can stipulate to that, Bill. I think we can stipulate the understanding of all of us --

MR. CARR: Okay.

(There followed discussion

off the record.)

MR. NUTTER: Any further questions of Mr. Lynch? Okay, Mr. Carr?

CROSS EXAMINATION

BY MR. CARR:

Q Mr. Lynch, as I understood your testimony, it was directed primarily to the interests of Pogo in Sections 21 and 28, is that correct?

A. Yes, sir.

Q And I believe you testified that in your opinion one well in that area would not drain 640 acres.

A. In my opinion I don't think it would.

Q. I believe you also testified that you believed they were in a separate Morrow pool from the wells located in the remainder -- or in the Grama Ridge Morrow Pool.

A. In a separate Morrow sand, yes, sir.

Q. Mr. Lynch, how familiar are -- are you familiar with the Getty wells drilled in Section 35 and in Sec-

tion 2 in the -- on the east side of the Grama Ridge Morrow Pool?

Mell, their original -- one of those wells was drilling at the time that Pogo's well was drilling and they went tight at the time of drilling, so I'd have to say, no, I'm not just real familiar with it.

Okay. You do not have anything that would indicate to you, in your opinion, whether or not they would or would not drain 640 acres, is that safe to say?

A. Yes, sir, just from my experience, I do not think they will drain 640.

Q In your opinion is it possible that a well could drain 640 acres in the Morrow?

A. I'm sure there -- I'm sure there are, and I think they would be the exception rather than the rule, though.

MR CARR: I have no further questions of Mr. Lynch.

MR. NUTTER: Are there any other questions of Mr. Lynch? He may be excused.

Did you have any questions of Mr. Mulloy?

MR. CARR: Mr. Nutter, I believe I found

out about what I was interested in.

No, I believe at this time, though, with the leave of the Examiner, I would like to call --

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MR. NUTTER: Do you have any further testi-

MR. LOPEZ: No, Mr. Examiner.

MR. NUTTER: Mr. Carr?

MR. CARR: I'd like to call Mr. Chris Bosecker.

I ask that he be sworn.

(Mr. Bosecker sworn.)

CHRIS BOSECKER

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

DIRECT EXAMINATION

BY MR. CARR:

Q Will you state your full name for the record, please?

A. Chris Bosecker.

Mr. Bosecker, where do you reside?

A. Midland, Texas.

Q. By whom are you employed and in what position?

A Getty Oil Company, as the Lead Reservoir Engineer for the Midland E & P District of Getty.

Mr. Bosecker, have you previously testified

before this Commission and had your credentials accepted and made a matter of record?

A. No, I have not.

Q Would you briefly summarize for the Examiner your educational background and your work experience?

A. My educational background is that I have a BS in engineering from the University of Oklahoma.

After obtaining that, worked three years for Texaco as an Engineer; varying field assignments working up to an Area Engineer; then worked three years for an independent oil company as the Engineer and really the only professional on the staff for the company; and for the last ten years I've worked in varying assignments with Getty and Skelly Oil Company.

Q. Mr. Bosecker, are you familiar with the area which is the subject matter of Pogo's application in Case 6498?

A. Yes, I am.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (Mr. Carr continuing.) Mr. Bosecker, I would ask that you refer to what has been marked for identification as Getty Exhibit Number One, and explain to the Examiner what it is and what it shows.

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A. This is a 4-well cross section made up of porosity logs, that cut across the Grama Ridge Field, Lea County, New Mexico, and this particular cross section is hung on structure at a datum of a minus 9000 feet.

It shows the top of the Morrow, the Morrow Clastics, and the various sand members included in the Morrow section.

Also, it depicts an interpretation of the geology, primarily of interest to us right now a major, a major down to the basin fault, which intersects somewhere between the Llano gas storage project and the Pogo well in Section 28.

This particular fault has many hundreds of feet of relief.

- a And the net effect of this fault is, as I understand your testimony, to separate the Grama Ridge Morrow from the Morrow sands in Section 28?
 - A. Yes.
- 0. Mr. Bosecker, I believe on this cross section is also a log of Getty's No. 35 State No. 1 Well.
 - A. That is correct.
- And were you involved in the drilling of this well?
 - A. Yes.
 - Q. How good a well is the Getty State 35?

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Me consider it to be a very good well. It potentialed for over 11,000,000 cubic feet of gas out of the Morrow.

Q. In your opinion how many acres will this well effectively drain in the Morrow?

Mell, we will be presenting testimony later that we feel that this well can drain a full 640-acre proration unit.

Q Can you generally summarize for the Examiner what evidence you intend to put on, or what -- what you base this statement upon?

is geological continuity between the wells, based upon the well logs. There is also geological continuity with respect to the type of sand deposit. In other words, it is not felt to be a channel deposit but more of a deltaic or a point bar deposit. Pressure response has been obtained from the one well to the other well and just the deliverability is high enough that we think that it can drain a full 640-acre spacing. Pressure build-up analysis indicates that permeability is equally as good as what the deliverability has been shown to be.

Q Mr. Bosecker, I believe you heard Mr. Lynch testify that there might be exceptional wells that would drain 640 acres in the Morrow. In your opinion is the Getty

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No. 35 such an exceptional well?

A. Yes, it is.

Q If the application of Pogo is granted in this case and the pool rules for the Grama Ridge Morrow Pool are limited only to the sections advertised by the Commission, what effect would this have on Getty?

A. Getty has for the last year been very active on the east flank of the Grama Ridge Morrow Field. We have drilled two wells, drilling a third well in Section 36, and plan to drill at least one more well. We feel that to date the information that we've learned, that these wells should be on 640-acre spacing.

Mr. Bosecker, do you have a recommendation to make to the Commission as to how they should treat the application of Pogo in this case?

A. Well, the Pogo well is totally different than the Getty wells or the Llano well, and it lies in a deeper structural position, probably as a result of the fault, as depicted here, and I feel that it's totally a different situation and can be treated differently.

Q Would you be willing to recommend to the Commission that Sections 21 and 28 be excluded from application of the Grama Ridge Morrow Pool rules?

A. Yes, I would.

Q Was Exhibit Number One prepared by you or

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under your direction and supervision?

A Yes, it was.

MP. CARR: At this time, Mr. Examiner, I would offer Getty's Exhibit Number One.

MR. NUTTER: Getty Exhibit One will be admitted in evidence.

MR. CARR: I have nothing further on direct.

MR. NUTTER: Are there any questions of the witness?

CROSS EMAMINATION

BY MR. NUTTER:

One here a fault over on the left side, which apparently separates the Pogo well in Section 28 from the Llano well in Section 33, and it looks like there are several hundred feet of throw there on that well.

Do you consider that that fault separates those two wells as far as producing zones are concerned?

M. Yes, I do, and I think some earlier testimony as far as pressures also substantiate there is no communication between --- between the two wells.

Q In other words, you agree with the pressure data that was submitted by the Pogo witness?

M. Well, I have no knowledge myself if those

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pressures were taken accumately, but I assume that they are, and if they were, there is definitely not communication between the Pogo well and the Llano well, and I think it's accepted throughout the industry that there is a major deep fault, down to the basin fault on the west flank of the anticline.

Okay, now we have another fault shown here on your Exhibit Number One, which separates the well in Section 34 from your well in Section 35. Do you think that that fault separates your producing interval from the Llano area in Section 34 and 3?

I think that it does, and again, the exhibit that was submitted with respect to pressures tends to bear that out.

Well, now I notice on Pogo's Exhibit Three, which is the tabular depiction of pressure, that your Getty 135 State 1 is shown on here, and we have a pressure of 7460 pounds. I don't see the well in Section 2 on here, however.

What was the pressure on it? It is on -- is that the Two State 1? Is it shown on there?

Yes. Let me go over here and get the pressure. It's approximately 8400. Do you want the current reservoir pressure taken at the same time as the one on Section 35 or the initial one, taken on --

O The initial pressures, I think, are more pertinent.

A. Okay, just one moment. 8270 psig.

MR. NUTTER: Mr. Mulloy, I notice on your Exhibit Number Two you've converted all of the pressures to a common datum of a minus 9350 with the exception of the two Getty pressures. Did you ever convert those to a common datum there?

MR. MULLOY: No, sir, I don't think so because I -- oh, the reason we -- they were relatively close footagewise and we didn't have the exact gradient to convert those -- convert those pressures. So since they were as close as they were to the gradient of the other wells, we just didn't bother to --

MR. NUTTER: You didn't have the pressure gradients on them. Okay.

MR. MULLOY: Since they were within a few pounds of 9350, anyway; well, 100 pounds in one case and 70-something pounds in another case.

O (Mr. Nutter continuing.) Well now, Mr.

Bosecker, Mr. Mulloy testified, and possibly also Mr. Lynch
testified, that in their opinion these pressure differentials
that they had between the LLano storage wells and the Pogo
well, the pressure differential was sufficient to show that
they were completed in another reservoir. Now your pressures

are something like two times what Pogo -- or what the Llano storage pressures are.

Would you think that that would indicate that those are in separate reservoirs from the Llano wells?

A. Yes, I certainly think so. In fact, there is no doubt in my mind. If they were not in a separate reservoir, the pressures should be near equal.

Q Well, if you're in separate reservoirs, then, do you think the Commission has made a mistake in including Section 2 and now in the nomenclature case today, Section 35, within the horizontal limits of the Grama Ridge Morrow gas pool? If they're in separate reservoirs?

A. There are several faults, down to the basin faults, in this area in which they have been effective seals as far as reservoir limits, and I think that there is a fault between the two subject acreas, but whether they can be included in one field or not, I don't know that it makes a whole lot of difference.

I think the reservoir characteristics of the storage area which was drilled and completed and depleted by Shell, and the reservoir characteristics that we have now, are basically the same. There is a fault that separates and is a seal between the two areas.

Q. Well, now if you're in a separate reservoir, why do you -- I presume you do -- why would you have objection

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to Llano wanting to change the spacing in the Grama Ridge Morrow Pool?

A. We are not in a separate pool at this time.
We're --

Q You're not in a separate pool but you are in a separate reservoir, is that correct? And if the Commission should establish a pool for your wells and you could substantiate 640-acre spacing, that would take care of you, wouldn't it?

And Llano could reduce the spacing in their portion of the Grama Ridge Morrow Pool to whatever they chose to space their wells.

MR. CARR: Mr. Nutter, we're really getting into the subject matter, it seems to me, of Case 6496 and I think we plan to fully bring that matter up with Llano, and I'm not saying that the question wasn't relevant. I'm just --

Q Well, what I'm concerned with, we've got this application here to limit the application of --

MR. CARR: That's right.

MR. NUTTER: -- the pool rules to the pool that's productive. Now you have elicited from your witness there testimony that Getty would not have objection to 21 and 28 being developed on 320-acre spacing.

MR. CARR: That's correct.

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MR. NUTTER: But I presume that you would have objection to Sections 35, 36, and 1 being developed on 320-acre spacing, because they are included in the application of Pogo, right?

MR. CARR: Yes, that's correct. We would also object to -- well, yes, that's correct.

MR. NUTTER: So you're opposed to a portion of Pogo's application but not to all of it.

MR. CARR: That is correct. We're not quarreling with Pogo in any way as to their testimony that they may need to develop Section 28 and Section 21 on 320acre spacing.

MR NUTTER: Are you quarreling with Llano in Case Number 6497?

MR. CARR: Yes, we are.

MR. NUTTER: With respect to what sections?

MR. CARR: With respect to -- now, Mr.

Nutter, are you talking about the unorthodox location or the rescission of the pool rules? The case you cited --

MR. NUTTER: 6496, I beg your pardon.

MR. CARR: Yes, we are. We're quarreling with them as to the rescinding the pool rules as they apply to Sections 34 and 3.

MR. NUTTER: But yet your witness has stated that there's a fault there and that your wells in 35 and 2

are completed in another reservoir.

MR. CARR: Yes, sir, they're completed in another reservoir but the characteristics of the two reservoirs are so similar as to merit placing them under the same pool rules, and I think our testimony will show that.

MR. NUTTER: I see. Okay. Are there any questions of Mr. Bosecker now at this time?

MR. LOPEZ: Well ---

MR. CARR: Oh, yes, there is one other question I'd like to ask.

Mr. Bosecker, your recommendation to the -or you stated to the Commission that you would recommend
that Sections -- that the Grama Ridge Morrow Gas Pool rules
do not apply to Sections 21 and 28. Would you have any objection to also including in that recommendation Sections
27, 29, and 32?

A. I think basically all of those sections lie on the downthrown side of this fault, similar to the Pogo Producing No. 2 in Section 28.

MR. CARR: So you'd have no objection to also including those in the recommendation?

A That is correct.

MR. CARR: Now I have nothing further.

MR. NUTTER: You don't have a plat showing the location of the fault in this pool?

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A. No, I do not.

MR. NUTTER: Are there any other questions of the witness? He may be excused.

Did you have anything further, Mr. Carr?

MR. CARR: Nothing further, Mr. Nutter.

MR. NUTTER: Does anyone have anything they

wish to offer in Case Number 6498?

We'll take the case under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is

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Etterno, Examiner Oil Conservation Division

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

JERRY APODACA

NICK FRANKLIN SECRETARY

May 2, 1979

POST OFFICE BOX 2008 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-2434

dr. Owen Lopez Montgomery, Andrews,	Re:	CASE NO. 6498 ORDER NO. R-5997		
& Hannahs Attorneys at Law Post Office Box 2307	•	Applicant: Pogo Producing Company		
Santa Fe, New Mexico	87501			
Dear Sir:		<i>c</i>		
		opies of the above-referenced ered in the subject case.		
Yours very truly,)			
THE STATE OF THE PARTY				
JOE D. RAMEY Director				
JOE D. RAMEY Director JDR/fd				
Director	sent to:			

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. 6498 Order No. R-5997

APPLICATION OF POGO PRODUCING COMPANY TO LIMIT APPLICATION OF POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

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

NOW, on this 2nd day of May, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R-5995, entered in Case No. 6496, the Division rescinded the Special Rules and Regulations for the Grama Ridge-Morrow Gas Pool, Lea County, New Mexico, as promulgated by Division Order No. R-3006, dated December 3, 1965.
- (3) That due to such rescission, Case No. 6498 is moot and should be dismissed.

IT IS THEREFORE ORDERED:

- (1) That Case No. 6498 is hereby dismissed.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

-2-Case No. 6498 Order No. R-5997

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

> JOE D. RAMEN, Director

STATE OF NEW MEXICO

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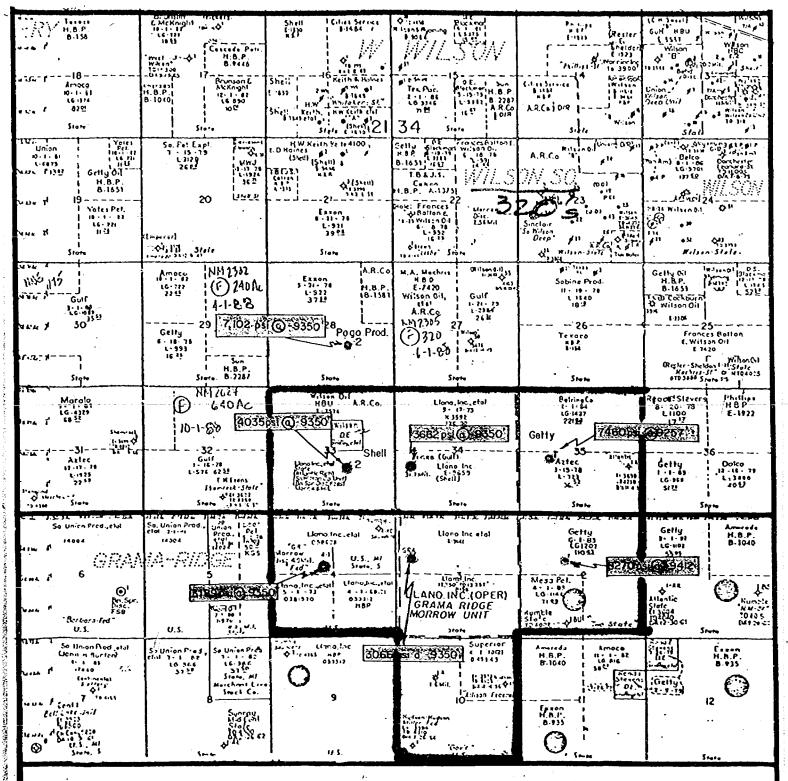
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POGO PRODUCING COMPANY

GRAMA RIDGE FIELD AREA LEA COUNTY, NEW MEXICO

Pogo 2x 2 Cs 6498.

CASE NO. 6498

EXHIBIT E.2

MARCH 14, 1979

Dockets Nos. 11-79 and 12-79 are tentatively set for hearing on March 14 and 28, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION BEARING - WEDNESDAY - MARCH 7, 1979

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

CASE 6489: Application of J. V. Fritts and Wm. B. Barnhill for review of Order No. R-4831, Eddy County, New Mexico. Applicants, in the above-styled cause, seek the review and interpretation of Order No. R-4831 to permit them the opportunity to join in the drilling of the Federal "B" Well No. 1 located in Unit P of Section 1, Township 18 South, Range 26 East, Atoka-Pennsylvanian Pool, Eddy County, New Mexico, and to determine the applicability of the 200% risk factor.

CASE 6398: (DE NOVO)

Application of Texas Oil & Gas Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location for the Wolfcamp and Pennsylvanian formations of its State Com Well No. 1, to be located 660 feet from the South and West lines of Section 18, Township 21 South, Range 26 East, Catclaw Draw Field, Eddy County, New Mexico, all of said Section 18 to be dedicated to the well in the Morrow formation.

Upon application of Texas Oil & Gas Corporation this case will be heard De Novo pursuant to the provisions of Rule 1220.

Docket No. 11-79

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 14, 1979

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

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

- ALLOWABLE: (1) Consideration of the allowable production of gas for April, 1979, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.
 - (2) Consideration of the allowable production of gas for April, 1979, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.
- CASE 6490: Application of L. C. Harris for a unit agreement, Chaves and Eddy Counties, New Mexico. Applicant, in the above-styled cause, seeks approval for his Walnut Draw Unit Area comprising 9,797 acres, more or less, of Federal, state and fee lands in Townships 15 and 16 South, Ranges 23 and 24 East, Chaves and Eddy Counties, New Mexico.
- CASE 6491: Application of C & E Operators, Inc. for an unorthodox well location and a non-standard proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre non-standard gas proration unit comprising the E/2 SW/4 of Section 10, Township 30 North, Range 11 West, Aztec-Pictured Cliffs Pool, San Juan County, New Mexico, to be dedicated to a well to be located 1700 feet from the South line and 1760 feet from the West line of said Section 10.
- CASE 6477: (Continued from February 28, 1979, Examiner Hearing)

Application of Sun Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its East Millman Pool Unit Area by the injection of water into the Queen and Grayburg formations through eleven wells located in Sections 12 and 13 of Township 19 South, Range 28 East, East Millman Pool, Eddy County, New Mexico.

CASE 6492: Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the NE/4 NW/4 of Section 13, Township 17 South, Range 25 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6072: (Reopened and Readvertised)

In the matter of Case 6072 being reopened pursuant to the provisions of Order No. R-5643 which order created the Travis-Upper Pennsylvanian Poel, Eddy County, New Mexico, with provisions for 80-acre spacing. All interested parties may appear and show cause why the Travis-Upper Pennsylvanian Pool should not be developed on 40-acre spacing units.

- CASE 6493: Application of Merrion & Bayless for gas well commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the surface commingling, prior to measurement, of Pictured Cliffs production from the Hi Roll Wells Nos. 1 and 2 located in Units 0 and K of Section 35, Township 27 North, Range 13 West, San Juan County, New Mexico.
- CASE 6494: Application of Morris R. Antweil for an unorthodox gas well location and simultaneous dedication, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of his Mesa Macho Well No. 1 located in Unit O of Section 24, Township 20 South, Range 27 East, Morrow formation, Eddy County, New Mexico, the E/2 of said Section 24 to be simultaneously dedicated to the aforesaid well and to applicant's Macho Norte Well No. 1 located in Unit C of Section 24.
- CASE 6495: Application of Amax Chemical Corporation for the amendment of Order No. R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-111-A to extend the boundaries of the Potash-Oil Area by the inclusion of certain lands in Sections 23 and 24, Township 19 South, Range 29 East, Sections 1, 4, 5, 6, 7, 11, 12, 13, 14, 19, 20, 23, 24, and 29, Township 19 South, Range 30 East, and Sections 7, 8, 17, 18, and 19, Township 19 South, Range 31 East, all in Eddy County, New Mexico.
- CASE 6496: Application of Llano, Inc. for rescission of pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the rescission of Order No. R-3006, which promulgated 640-acre spacing for the Grama Ridge-Morrow Gas Pool, Lea County, New Mexico. Applicant proposes that said pool be developed and operated under 320-acre spacing and well location requirements.
- CASE 6497: Application of Llano, Inc. for an unorthodox/gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be located 1650 feet from the South line and 660 feet from the East line of Section 34, Township 21 South, Range 34 East, Grama Ridge-Morrow Gas Pool, Lea County, New Mexico, the E/2 of said Section 34 to be dedicated to the well.
- CASE 6498:

 Application of Pogo Producing Company to limit application of pool rules, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks to limit the application of the Grama Ridge-Norrow Gas
 Pool Rules to the horizontal limits of said pool, being all of Sections 2, 3, 4, and 10, Township
 22 South, Range 34 East and Sections 33 and 34, Township 21 South, Range 34 East, Lea County, New
 Mexico.
 - CASE 6499: In the matter of the hearing called by the Gil Conservation Division on its own motion for an order creating and extending horizontal limits and contracting vertical limits of certain pools in Chaves, Eddy, Lea, and Roosevelt Counties, New Mexico:
 - (a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Antelope Sink-Morrow Gas Pool. The discovery well is Maddox Energy Corporation State 32 Well No. 1 located in Unit I of Section 32, Township 18 South, Range 24 East, NMPM. Said pool would comprise:

TOWNSHIP 18 SOUTH, RANGE 24 EAST, NMPH Section 32: E/2

(b) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Baldridge Canyon-Morrow Gas Pool. The discovery well is W. A. Moncrief, Jr., Baldridge Canyon Com Well No. 1 located in Unit G of Section 13, Township 24 South, Range 24 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 24 EAST, NMFM Section 13: E/2

(c) CREATE a new pool in Eddy County, New Nexico, classified as an oil pool for Delaware production and designated as the Burton Flat-Delaware Pool. The discovery well is Yates Petroleum Corporation Stonewall EP State Well No. 3 Jocated in Unit N of Section 19, Township 20 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 28 EAST, NMPM Section 19: SW/4

(d) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for San Andres production and designated as the East Crossroads-San Andres Pool. The discovery well is MGF 0il Corporation Santa Fe Railway Well No. 1 located in Unit A of Section 13, Township 10 South, Range 36 East, NMPM. Said pool would comprise:

TOWNSHIP 10 SOUTH, RANGE 36 EAST, NMPM Section 13: NE/4

(e) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the South Culebra Bluff-Atoka Gas Pool. The discovery well is Delta Drilling Company South Culebra Bluff Unit Well No. 1 located in Unit G of Section 23, Township 23 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM Section 14: E/2
Section 23: All
Section 26: All

(f) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Dublin Ranch-Morrow Gas Pool. The discovery well is J. C. Barnes Oil Company Big Chief Com Well No. 1 located in Unit F of Section 22, Township 22 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM Section 22: All Section 27: N/2

(g) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Gardner Draw-Morrow Gas Pool. The discovery well is Phoenix Resources Company Gardner Draw Unit Well No. 1 located in Unit C of Section 20, Township 19 South, Range 21 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 21 FAST, NMPM Section 17: W/2 Section 19: N/2 Section 20: N/2

(h) CREATE a new pool in Chaves County, New Mexico, classified as a gas pool for Pennsylvanian production and designated as the Jubilee-Pennsylvanian Gas Pool. The discovery well is Tom L. Ingram Jubilee Well No. 1 located in Unit E of Section 28, Township 10 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 10 SOUTH, RANGE 29 EAST, NMPM Section 28: W/2

(i) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Mississippian production and designated as the King-Mississippian Cas Pool. The discovery well is Cabot Corporation J. L. Reed Well No. 1 located in Unit N of Section 35, Township 13 South, Range 37 East, NNPM. Said pool would comprise:

TOWNSHIP 13 SOUTH, RANGE 37 EAST, NMPM Section 35: NE/4

(j) CREATE a new pool in Chaves County, New Mexico, classified as a gas pool for Atoka production and designated as the Lone Wolf-Atoka Gas Pool. The discovery well is Depco, Inc. Sundance A Pederal Well No. 1 located in Unit J of Section 25, Township 12 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 12 SOUTH, RANGE 29 EAST, NMPM Section 25: S/2

(k) CREATE a new pool in Chaves County, New Mexico, classified as a gas pool for Strawn production and designated as the Lost Lake-Strawn Gas Pool. The discovery well is Texas Oil & Gas Corporation O'Brien Well No. 1 located in Unit I of Section 11, Township 9 South, Range 29 East, NMPN. Said pool would comprise:

TOWNSHIP 9 SOUTH, RANGE 29 EAST, NMPM Section 2: S/2 Section 11: All

Section 14: N/2

(1) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the West Mescalero-Morrow Gas Pool. The discovery well is Natomas North America, Inc. New Mexico State Well No. 1 located in Unit M of Section 19, Township 10 South, Range 32 East, NMPM. Said pool would comprise:

TOWNSHIF 10 SOUTH, RANGE 32 EAST, NEHRM Section 19: W/2

(m) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Permo-Penn production and designated as the Penasco Draw Permo-Penn Gas Pool. The discovery well is Yates Petroleum Corporation La Cama Com Well No. 1 located in Unit F of Section 20, Township 18 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM Section 18: S/2
Section 19: All Section 20: All Section 21: W/2
Section 30: All

Section 31: All

(n) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Siegrest Draw-Morrow Gas Pool. The discovery well is Yates Petroleum Corporation Siegrest JS State Com Well No. 1 located in Unit C of Section 30, Township 19 South, Range 24 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 24 EAST, NMPM Section 30: N/2

(o) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the North Turkey Track-Atoka Gas Pool. The discovery well is Amoco Production Company State ER Com Well No. 1 located in Unit G of Section 6, Township 19 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM Section 6: N/2

(p) FXTEND the Angell Ranch-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 27 EAST, NMPM Section 35: E/2

(q) EXTEND the Buffalo Valley-Pennsylvanian Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 28 EAST, NMPM Section 17: S/2

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

TOWNSHIP 8 SOUTH, RANGE 31 EAST, NMPM Section 5: NW/4 SW/4

(s) EXTEND the Cedar Lake-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM Section 25: W/2 Section 26: E/2 Section 36: NW/4

(t) EXTEND the East Chisum-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 28 EAST, NMPM Section 9: E/2 NE/4
Section 10: W/2 NW/4

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

TOWNSHIP 18 SOUTH, RANGE 33 EAST, NMPM Section 20: SW/4

(v) EXTEND the Double L Queen Associated Pool in Chaves County, New Mexico, to include therein: TOWNSHIP 14 SOUTH, RANGE 29 EAST, MMPM Section 24: NW/4 and E/2 SW/4. NW/4, S/2 NW/4 and SW/4

(w) EXTEND the Drinkard Pool in Lea County, New Mexico, to include therein: TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM

(x) EXTEND the East Eagle Creek Atoka-Morrow Gas Pool in Eddy County, New Mexico, to include

(y) EXTEND the Grama Ridge-Morrow Gas Posl in Lea County, New Mexico, to include therein:

(z) REDEFINE the vertical limits of the Monument Tubb-Drinkard Pool in Lea County, New Mexico, (aa) EXTEND the West Indian Basin-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

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

(cc) EXTEND the South Prairie-Wolfcamp Pool in Roosevelt County, New Mexico, to include therein: (dd) EXTEND the Querecho Plains-Bone Spring Pool in Lea County, New Mexico, to include therein:

(ee) EXTEND the Richard Knob Atoka-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

(ff) EXTEND the Round Tank-Queen Associated Pool in Chaves County, New Mexico, to include therein:

(gg) EXTEND the South Salt Lake-Morrow Gas Pool in Lea County, New Mexico, to include therein: (hh) EXTEND the North Teague-Devonian Pool in Lea County, New Mexico, to include therein:

(11) EXTEND the Tomahawk-San Andres Pool in Roosevelt County, New Mexico, to include therein:

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

TOWNSHIP 8 SOUTH, RANGE 28 EAST, NMPM Section 36: NE/4

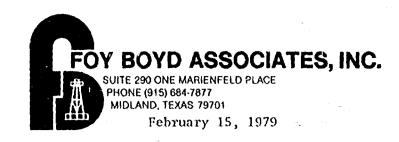
Docket No. 12-7

DOCKET: COMMISSION HEARING - THURSDAY - MARCH 15, 1979

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

CASE 6222: (Rehearing) (Continued from March 2, 1979, Commission Hearing)

Application of Paul Hamilton for salt water disposal well shut-in, Lea County, New Mexico. Upon application of Paul Hamilton there will be a rehearing of Case No. 6222, Order No. R-5753. This case involves the application of Paul Hamilton for an order shutting down salt water disposal operations in the Texaco Inc., New Mexico State "BO" SWD Well No. 3, located in Unit D of Section 24, Township 11 South, Range 32 East, Moore-Devonian Pool, Lea County, New Mexico. Pursuant to Commission Order No. R-5753-A, evidence at said rehearing shall be limited to evidence relating to data regarding water quality and water level obtained from an observation well completed next to the aforesaid SWD Well No. 3, and to other new evidence unavailable at the time of the original hearing of this case on May 31, 1978.



(°cse 6498

Mr. Joe D. Ramey New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

313

Re: Hearing before NMOCC to establish limits for the existing Grama-Ridge Field and show that recent development to North is producing from a different horizon and should be developed under Statewide Rules

Dear Sir:

It is respectfully requested that a hearing be set to consider Pogo Producing Company's request that the application of the special rules for the existing Grama-Ridge Morrow Field be limited to only that acreage originally assigned to wells in the following sections:

Section 2 T-22-S, R-34-E
Section 3 T-22-S, R-34-E
Section 4 T-22-S, R-34-E
Section 10 T-22-S, R-34-E
Section 33 T-21-S, R-34-E
Section 34 T-21-S, R-34-E

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Pogo Producing Company desires that all their acreage outside the designated area be excluded from the special Grama-Ridge Pool Rules in order that it be developed on 320 acres under Statewide Rules.

Pogo will also show that their existing well, located in Section 28, and their proposed well in Section 21 are in a different geological horizon.

Approval of the above request will allow Pogo Producing Company to fully develop their acreage, prevent waste, conserve the natural resources and protect correlative rights. Notice of this request has been furnished to offset operators as indicated on the attachment.

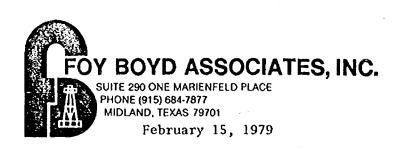
It is again requested that this be scheduled for hearing and placed on the docket for March 7, 1979.

Yours very truly,

John W. Mulloy

Agent for Pogo Producing Company

JWM:bb Attachment



Case 6498

Mr. Joe D. Ramey New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Re: Hearing before NMOCC to establish limits for the existing Grama-Ridge Field and show that recent development to North is producing from a different horizon and should be developed under Statewide Rules

Dear Sir:

It is respectfully requested that a hearing be set to consider Pogo Producing Company's request that the application of the special rules for the existing Grama-Ridge Morrow Field be limited to only that acreage originally assigned to wells in the following sections:

Section 2 T-22-S, R-34-E Section 3 T-22-S, R-34-E Section 4 T-22-S, R-34-E Section 10 T-22-S, R-34-E Section 33 T-21-S, R-34-E Section 34 T-21-S, R-34-E

Pogo Producing Company desires that all their acreage outside the designated area be excluded from the special Grama-Ridge Pool Rules in order that it be developed on 320 acres under Statewide Rules.

Pogo will also show that their existing well, located in Section 28, and their proposed well in Section 21 are in a different geological horizon.

Approval of the above request will allow Pogo Producing Company to fully develop their acreage, prevent waste, conserve the natural resources and protect correlative rights. Notice of this request has been furnished to offset operators as indicated on the attachment.

It is again requested that this be scheduled for hearing and placed on the docket for March 7, 1979.

Yours very truly,

John W. Mulloy

Agent for Pogo Producing Company

JWM:bb Attachment

OFFSET OPERATORS

Pogo Producing Company - State L-921 Lease

Lea County, New Mexico

Wisen Oil Company
P. O. Box 192
Sistersville, West Virginia 26175

Sheil Oil Company P. O. Box 1509 Midland, Texas 79702

Hiram W. Keith & Dalton Haines 709 East Austin Kermit, Texas 79745

Thomas B. Catron, III
John S. Catron
P. O. Box 788
Santa Fe, New Mexico 87501

Texas Oil & Gas Corporation 900 Wilco Building Midland, Texas 79701

Sabine Production Company 1200 Mercantile Bank Building Dallas, Texas 75201

Getty Oil Company
P. O. Box 1404
Houston, Texas 77001

Wilson Oil Company & Frances T. Bolton, Deceased DBA Wyoming Oil Company P. O. Box 1297 Santa Fe, New Mexico 87501

Atlantic Richfield Company P. O. Box 2819 Dallas, Texas 75202

Llano, Inc. P. O. Drawer 1320 Hobbs, New Mexico 88240 dr/

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

CASE	NO.	,	649
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Order No.

APPLICATION OF POGO PRODUCING COMPANY TO LIMIT APPLICATION OF POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 14, 1979 19____, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter. day of heary Division Director, having considered the testimony, the record, ____, 19<u>79</u>, the and the recommendations of the Examiner, and being fully advised in the premises, FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R- 5995 , entered in Case No. 6496, the Division rescinded the Special Rules and Regulations for the Grama Ridge-Morrow Gas Pool, Lea County, New Mexico, as promulgated by Division Order No. R-3006, dated December 3, 1965.

-2-Case No. 6498 Order No. R-

(3) That due to such rescission, Case No. 6498 is moot and should be dismissed.

IT IS THEREFORE ORDERED:

- (1) That Case No. 6493 is hereby dismissed.
- (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.