CASE 6702: EL PASO NATURAL GAS COMPANY for
FOR DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO

Continue to
November 28

CASE NO.

6702

APPLICATION,

TRANSCRIPTS,

SMALL EXHIBITS,

ETC.

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. 6702
Order No. R-6235

APPLICATION OF EL PASO NATURAL GAS
COMPANY FOR DOWNHOLE COMMINGLING,
RIO ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 28, 1979, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 9th day of January, 1980, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, El Paso Natural Gas Company, is the owner and operator of the San Juan 27-5 Unit Well No. 67, located in Unit B of Section 31, Township 27 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle South Blanco-Pictured Cliffs and Blanco Mesaverde production within the wellbore of the above-described well.

(4) That from the South Blanco-Pictured Cliffs zone, the subject well is capable of low marginal production only.

(5) That from the Blanco Mesaverde zone, the subject well is capable of low marginal production only.

(6) That the bottom-hole pressure in the Mesaverde zone is approximately three times that of the Pictured Cliffs zone.

(7) That the Division has previously found that when bottom-hole pressures of zones to be commingled differ by a factor greater than two, potentially damaging crossflow between zones could occur if the well should be shut in.

(8) That there is no mechanism to assure the Division that said San Juan 27-5 Unit Well No. 67 would not be shut-in following completion of the proposed downhole commingling.

(9) That to avoid the potential for waste the subject application should be denied.

IT IS THEREFORE ORDERED:

(1) That the application of El Paso Natural Gas Company to commingle South Blanco-Pictured Cliffs and Blanco Mesaverde production within the wellbore of the San Juan 27-5 Unit Well No. 67, located in Unit B of Section 31, Township 27 North, Range 5 West, NMPM, Rio Arriba County, New Mexico, is hereby denied.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

S E A L

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

January 10, 1980

Re: CASE NO. 6702
ORDER NO. R-6235

Mr. David Burleson, Attorney
El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

Applicant:

El Paso Natural Gas Company

El Paso Natural Gas Company

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD x

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
28 November 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico.

CASE 6702

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: David T. Burleson, Esq.
El Paso Natural Gas Company
El Paso, Texas.

I N D E X

E X H I B I T S

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

MR. STAMETS: We'll call the next Case 6702.

MR. PADILLA: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico.

MR. BURLESON: Applicant is ready. David T. Burleson, with the law firm of Montgomery, Andrews and Hannahs.

MR. Examiner, we'll have two witnesses and possibly four, so perhaps we should have them all sworn.

MR. STAMETS: I'd like to have them stand and be sworn, please.

Any other appearances in this case?

(Witnesses sworn.)

PAUL W. BURCHELL

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

DIRECT EXAMINATION

BY MR. BURLESON:

Q. Mr. Burchell, will you state your name please and where you reside for the record?

A. Yes. My name is Paul W. Burchell. That's

B-U-R-C-H-E-L-L. And I reside in El Paso, Texas.

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

A. I'm employed by the El Paso Natural Gas Company as Senior Proration Engineer.

Q. As a proration engineer, have you previously testified before the Division or one of its examiners?

A. Yes, I have.

Q. And your qualifications were accepted by the Division on that occasion?

A. Yes, they were.

Q. Are you familiar with Case 6702 and what El Paso is seeking in that case?

A. Yes, I am.

MR. BURLESON: Are the witness' qualifications acceptable to the Division?

MR. STAMETS: They are.

Q. Who is the operator of the well which is the subject of this case, Mr. Burchell?

A. El Paso Natural Gas Company is the operator.

Q. What is El Paso seeking in Case 6702?

A. We are seeking permission to downhole commingle gas and condensate of the Blanco Mesaverde Gas Pool with gas of the South Blanco Pictured Cliffs Gas Pool, and

produce this gas through one meter in the San Juan 27-5 Unit Well No. 67. This well is located in Unit B of Section 31, Township 27 North, Range 5 West, Rio Arriba County, New Mexico. This well presently produces from both these formations as a dual completion.

El Paso proposes that the allocation of gas and fluids to each of these formations be divided in such a manner that certain percentages of the production would be considered Mesaverde and the remaining portion would be considered Pictured Cliffs.

The method of allocating production will be explained later on my testimony.

Q. Has there -- has a problem developed with respect to this well in recent years?

A. Yes. The 1979 packer leakage test indicated that communication between the two zones was taking place in the dually completed well.

Q. Have you been able to determine where this leak exists? Within the well?

A. No, we were not able to determine exactly where the leak exists. A temperature survey was run but the tool had difficulty in certain tight spots in the tubing and the test was simply inconclusive.

Q. Why is El Paso asking to downhole commingle gas from the two zones involved in this proceeding?

Q. Well, downhole commingling is considered by El Paso to be the most economic and conservative method to undertake. This is due to the low productivity of both zones and due to the high cost of repairing the suspected leak in the well.

A. Do you have an exhibit which indicates the equipment that's located in the hole?

A. Yes, I do.

Q. And that is Exhibit Number --

A. Number One.

Q. Would you please explain what that exhibit demonstrates, please?

A. It is a diagrammatic sketch of the equipment which has been marked as El Paso Natural Gas Company Exhibit Number One. The exhibit shows there are two strings of tubing installed in the San Juan 27-5 Unit No. 67 Well. It also shows that a Baker Model R production packer is set at 3353 feet. The well is perforated from 3106 feet to 3152 feet in the Pictured Cliffs Pool above the packer, and the Mesaverde Pool is perforated from 4810 feet to 5378 feet below the packer.

The Pictured Cliffs side of the well produces through a 1-1/4 inch tubing and this tubing is set at 3140 feet, while the Mesaverde is produced through a 2-1/16 inch tubing set at 5329 feet.

Q. You've also prepared an exhibit which indicates the production history of this well, too, have you not?

A. Yes, I have.

Q. Would you please explain that exhibit, please?

A. El Paso Natural Gas Company Exhibit Number Two shows the South Blanco Pictured Cliffs and Blanco Mesaverde formations gas production performance since 1970. The bottom part of the Exhibit Number Two, are the years indicated from 1970 to 1979, with 1970 being on the lefthand side of the graph.

The lefthand side of the graph vertically shows the yearly average daily production rate in Mcf of gas per day, so that is the average daily production for each formation for that particular year.

The righthand side of the graph, which is outlined in yellow, shows the Mesaverde production, it's percent of the total amount of gas produced for each year.

The solid line on the bottom of the graph shows the Pictured Cliffs gas production. In 1970 it was averaging 30 Mcf of gas per day and it continued to decline to the year of 1977, and at that time it was producing 21 Mcf of gas per day. Then in 1978 it started to increase. It went to 35 and in 1979 it went to 139 Mcf of gas per day.

The middle solid dashed line on the graph

is showing the Mesaverde gas production for each one of these years, or its daily average. It starts off in 1970 around 471 Mcf of gas per day for that year and it decreases with a normal decline to the year 1977, producing about 324 Mcf of gas per day. Then after 1977 its producing rate drops drastically. In 1978 to 261 and in 1979 to 146 Mcf of gas per day.

The very top broken dashed line, which is also outlined in yellow, shows the Mesaverde's percent of the total amount of gas produced for each year.

As can be observed from the exhibit, the Mesaverde formation has been responsible for 93 to 95 percent of the total gas produced from the well between the years 1970 and 1977.

During 1978 and 1979 the Mesaverde production was 88 percent and then 52 percent, respectively, of the total well's production; however, I do not consider this Mesaverde production to be respective of actual production for the zone during '78 and '79 due to the indicated communication problem.

Now, Mesaverde production amounts to 94.067 percent of the total gas produced from 1970 to 1977. This figure agrees very well with the 94.03 percent which was the measured production for the first two months of 1978. That is for January and February, and these two months were prior

to the last positive packer leakage test, which was taken in March of '78.

I therefore conclude that leakage started to occur in this well sometime after March of 1978.

Q. What further conclusions can you draw from examination of the data indicated on Exhibit Number Two?

A. Well, in my opinion, the flow rates for both the Mesaverde and the Pictured Cliffs are very small. The Mesaverde zone in the San Juan 27-5 Unit No. 67 Well is prorated marginal, and the Pictured Cliffs is prorated exempt marginal. As of January and February of 1978 the Mesaverde production was averaging 310 Mcf of gas per day and the Pictured Cliffs was making 90 Mcf of gas per day.

Q. Do you have any information regarding the pressure existing with respect to the Mesaverde and the Pictured Cliffs formation encountered in these wells and any information with regard to the fluid characteristics in those -- as to those two formations?

A. Yes, sir. Prior to the communication problem between the two zones, the Mesaverde was producing a very slight amount of water, but it was averaging about 24 barrels of condensate per month, and had a cumulative of around 8049 barrels of condensate.

Now the Pictured Cliffs produced no condensate but it did make between 1 and 2 barrels of water per day

Now with regard to pressures, based on the extrapolation of State tests, the Pictured Cliffs side of the well had a shut-in tubing pressure of 138 pounds per square inch absolute. This is as of July the 1st, 1979.

MR. STAMETS: Is that an estimated figure?

A. No, this is -- it's estimated or extrapolated from prior State tests.

The corresponding bottom hole pressure is estimated to be 148 psia.

Now also based on extrapolation of State tests, the Mesaverde's shut-in tubing pressure was 400 psia with a corresponding bottom hole pressure estimated at 450 psia.

Q. Do you believe that there would be any problem by reason of the fluid that's being produced from these zones and the pressure differential that exists between the two zones?

A. To answer your question, I believe, yes, sir, I don't believe there will be any problems because of the small pressure differential and the small volume of liquids. I do not expect any migration of gas or fluids from one formation to the other, particularly if the well is continually produced.

Q. What advantages would accrue from the commingling of these two zones, in your view?

A. Mr. Examiner, I feel that there are really two main advantages. First, it is believed that a certain amount of additional condensate could be obtained from the Mesaverde side of the well, and possibly an additional amount of gas from the Pictured Cliffs could be obtained that otherwise would not be produced. It is estimated that the Pictured Cliffs would produce at least 19 Mcf of gas per day and when added to the Mesaverde's 310 Mcf of gas per day, this will be a greater volume of gas to help lift the Mesaverde condensate and the Pictured Cliffs water.

It is further estimated that the Mesaverde has around 1900 MMCF of gas remaining reserves, and the Pictured Cliffs has around 55 MMCF of remaining reserves, which can be recovered through commingling.

Now besides efficiency in production, the second advantage of commingling is, of course, economics, better economics. To repair and dually complete the existing well would cost $18,000; however, it will only cost about $10,390 to downhole commingle the Mesaverde with the Pictured Cliffs.

Commingling, therefore, Mr. Examiner, represents a considerable savings in monies.

Q. If the Division approval is granted here, do you have a recommendation as to a method by which the gas and condensate will be allocated as between the two zones,

being the Pictured Cliffs and the Mesaverde?

A. Yes, sir. Based on my prior testimony related to the average daily production of gas for the months of January and February, 1978, just prior to the last positive packer leakage test, it is recommended that 94.03 percent of the well's gas production be attributed to the Blanco Mesaverde Pool and 5.97 percent to the South Blanco Pictured Cliffs Pool. It is further recommended that condensate production be allocated 100 percent to the Mesaverde formation and any water production be allocated 100 percent to the Pictured Cliffs formation.

Q. Do you have any idea as to what the ownership is in the two formations that are the subject of this hearing?

A. No, Mr. Examiner, we have another witness here that is an individual with El Paso Natural Gas Company's land department, and he is prepared to explain the ownership and the nature of the various contracts involved in this unit.

Q. In your opinion would granting of this application protect correlative rights and prevent waste?

A. Yes, sir.

Q. Do you have anything further to present in this case?

A. Not at this time.

MR. BURLESON: Mr. Examiner, we request that Exhibits One and Two be accepted into evidence, and this concludes our examination of this witness and we tender him for cross examination.

MR. STAMETS: These exhibits will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Burchell, what was the cost of repairing the well?

A. Yes, sir, it's -- to repair the well and put it back in its state with no leakage and dually complete it, will be $18,000.

Q. And then the cost for downhole commingling?

A. We estimate it at $10,390.

Q. Now the pressures that you have there, 148 psia and 450, that represents more than a 200 percent differential between the two zones, does it not?

A. Yes, sir, it would.

Q. Isn't that rather substantial pressure differential?

A. It's -- I would consider small but probably as comparing it with other downhole commingling wells it is probably higher than past experience.

Q. Now, Mr. Burchell, also looking at the production chart which you supplied us with here --

A. Right.

Q. -- it would appear that the production started changing at the end of 1977. We had fairly stable history on each zone before that time.

A. Right.

Q. And just my own analysis of this thing, it seems to indicate that in the two years, 1977 to 1979, we had a decline of 70 Mcf a day in total production.

A. Yes, sir, that's true.

Q. From the two zones --

A. Yes.

Q. -- and in the previous two years the decline was only 20 Mcf, and so it appears to me we've got downhole commingling in this well already and we're experiencing rather relatively severe production decline.

A. That might be explained because of two reasons. Wherever that leak is, whether it's in the Mesaverde tubing or the packer has a problem, there are fluids, water, say 2 barrels a day, coming from the shallow zone, the Pictured Cliffs, and coming down on the packer and into the leak, and that might have some effect on the Mesaverde's overall production, but I think the main reason for this

decline in overall total production would be the fact that we have two systems out there gathering the gas from this well, a low pressure system for the Pictured Cliffs and a high pressure system for the Mesaverde. The Mesaverde production after 1977, it is my understanding that the system increased, the pipeline pressure increased, and because of this increase, would also have some effect of decreasing the amount of flow of gas from the Mesaverde formation into the pipeline.

That is my only explanation.

Q. And again, if you've got downhole commingling your low pressure system on the PC ought to be siphoning off some more from the Mesaverde.

A. It certainly -- it certainly did go up. But I see what you mean.

Q. What kind of line pressures are you talking about?

A. I believe the high pressure system is around 300 pounds and 80 pounds on the low side.

Q. And which system would the commingle stream go into?

A. Well, more than likely, we would certainly try to go through that leak and up the wellhead into the low --

Q. No, no.

A. -- pressure system.

Q. I mean once you, if you are authorized to downhole commingle --

A. Oh, excuse me.

Q. -- which would be --

A. Then it would be, both zones would be commingled downhole, and the gas would go into the low pressure system.

MR. STAMETS: Any other questions of this witness? He may be excused.

MR. BURCHELL: Thank you, Mr. Examiner.

MR. BURLESON: Mr. Examiner, we have another witness right now, Mr. Ray Nordhausen. We also would like to return to the point which you raised a moment ago with a third witness, who we'll put on after Mr. Nordhausen.

MR. STAMETS: Fine.

RAY NORDHAUSEN

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

DIRECT EXAMINATION

BY MR. BURLESON:

Q. Would you please state your name and where you reside?

A. My name is Ray Nordhausen and I live in El

Paso.

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

A. I'm employed by The El Paso Exploration Company, a subsidiary of the El Paso Company, as petroleum landman.

Q. Have you previously testified before the Oil Conservation Division or one of its examiners as an expert in petroleum land management?

A. Yes.

Q. Were your qualifications accepted by the Division on that occasion?

A. Yes.

Q. Is your responsibility to administer land activities with regard to the 27-5 Unit and specifically the request to the Unit Well No. 36, which is the subject of this hearing?

A. Yes, No. 67.

MR. BURLESON: Mr. Examiner, are the witness' qualifications acceptable?

MR. STAMETS: They are.

Q. Mr. Nordhausen, in conjunction with your responsibilities in the land department, have you had occasion to investigate the ownership and the identity of the owners of production from the Pictured Cliffs formation and

the Mesaverde formation in the San Juan 27-5 Unit Well No. 67?

A. Yes.

Q. Please discuss your findings with regard to this matter in general terms.

A. Pictured Cliff production is owned by the owners of Pictured Cliffs rights within the 18,566-acre Pictured Cliffs participating area of the 27-5 Unit.

Mesaverde production is owned by the owners of Mesaverde rights within the 20,804-acre Mesaverde participating area of the 27-5 Unit.

To a large extent the participating areas overlap, thus it is not surprising that the same persons or firms are interest owners in the production from both the Pictured Cliffs and Mesaverde formations, except for eight royalty owners within the Mesaverde participating area, who have no interest in the Pictured Cliffs participating area. It should be noted, however, that even though the owners are identical as to both formations, with the exception stated, such entire owners' interests do vary as between the two formations, though in most instances the differences are small.

For example, Federal royalty interest in Pictured Cliffs production is 10.1 percent; in the Mesaverde production it is 10 percent.

The State royalty interest in Pictured

Cliffs production is 1.22 percent. In Mesaverde production it is 1.54 percent.

The greatest difference in a party's interest in production from the two formations is that of Northwest Pipeline Corporation whose working interest in Pictured Cliffs production is 9.7 percent. In Mesaverde production it is 15.99 percent.

Q. Now, have you contacted all of these owners and sought their approval of what we are seeking in this application; that is, permission to downhole commingle with respect to these two zones?

A. Yes.

Q. How were they contacted?

A. By letters dated October 11th, 1979; October 12th, 1979; and by a follow-up letter of November 21st, 1979.

Q. What has been the response to date from such letters?

A. Of the 45 working interest owners contacted, 12, which is all of them, 12 have approved with such approving owners owning 66 percent in the Pictured Cliffs and 67 percent in the Mesaverde.

Of the 29 royalty owners, only the State of New Mexico and six others have approved.

MR. STAMETS: How many royalty owners were

there?

A. 20; 20 royalty owners.

MR. STAMETS: And what were the numbers that had approved?

A. No, of 29 royalty owners only the State of New Mexico and six others have approved.

MR. BURLESON: That would be 7, right?

A. Yeah, yeah, 7. Of the 49 overriding royalty owners, 14 have approved. The remaining interest owners did not respond; however, all owners were advised of the time and place of the hearing and that they have a right to appear to state their position regarding our proposal.

Q. (Mr. Burleson continuing.) Have you prepared an exhibit which contains a photocopy of the letters which you just referred to and a photocopy of the signature page of those approving owners?

A. Yes. This collection of material has been marked as El Paso's Exhibit Number Three.

Q. Let me call your attention, please, to your letter of October the 11th. There are percentages appearing toward the bottom of the page and I would like to ask you if those percentages are correct, precisely correct?

A. No. The figure should be 5.97 percent rather than 5.758 percent, and 94.03 percent rather than 94.242 percent.

Q. In other words, these were very small differences and apparently resulted from an error in calculation?

A. Yes.

Q. You earlier stated that Exhibit Number Three was prepared by you or under your supervision, is that correct?

A. Yes.

MR. BURLESON: Mr. Examiner, I move admission of Exhibit Number Three and I tender this witness for cross examination.

MR. STAMETS: Exhibit Number Three will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Nordhausen, as I understand it, this is a unit well and you have two different participating areas and slight differences in interest in the two participating areas?

A. That's correct.

MR. STAMETS: Any other questions of this witness?

MR. BURLESON: I might ask one more question just to highlight something I think has already been covered.

REDIRECT EXAMINATION

BY MR. BURLESON:

Q. You mentioned that aside from those approvals which you obtained in response to your letters, that you heard nothing further from any of these other parties, so that means that there were no objections lodged with you to this proposal?

A. That is correct.

Q. Procedure.

MR. BURLESON: That's all I have, Mr. Examiner.

MR. STAMETS: Any other questions of this witness? He may be excused.

I'd like to ask Mr. Burchell a question. He can sit right there.

MR. BURLESON: Surely.

MR. BURCHELL: Yes, sir.

MR. BURLESON: You're still under oath.

MR. STAMETS: Mr. Burchell, how will this well be completed if you're authorized to downhole commingle?

MR. BURCHELL: Let's see. Well, of course, the -- both strings of tubing and the packer will be removed and we'll just run a -- just a single string of tubing down the hole and I believe that's -- it will just go -- be com-

mingled in that manner.

MR. STAMETS: Okay, thank you.

MR. BURLESON: To elaborate a bit on a couple of matters that you raised, Mr. Examiner, we'd like to call Mr. Larry Aimes.

MR. STAMETS: Okay.

MR. BURLESON: Mr. Aimes was sworn earlier.

LARRY AIMES

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

DIRECT EXAMINATION

BY MR. BURLESON:

Q. Larry, would you state your full name for the record, and where you reside?

A. Okay, my name is Larry Aimes and I reside in Farmington, New Mexico.

Q. And by whom are you employed and in what capacity?

A. I am employed by El Paso Exploration Company, a subsidiary of The El Paso Company, and my title is Division Project Drilling Engineer.

Q. And what specifically, in a general way, are your responsibilities in that capacity?

A. In regards to this situation, I prepare or deal directly with most -- all well workovers that are -- that are done, that are prepared. I deal with both the State and the USGS in matters concerning drilling of new wells. I work on special projects; numberous duties along that line.

Q. Would you give a brief resume of your educational background, please?

A. Okay. I'm a graduate with a BS in mechanical engineering from New Mexico State University. I've worked in the oil and gas industry for twelve years and -- or for thirteen years, and have worked for the last ten and a half years for El Paso Natural Gas.

Q. In --

A. As a drilling engineer.

MR. BURLESON: Mr. Examiner -- well, let me ask you this, also.

Q. Have you ever testified before this Commission as a drilling engineer?

A. No, I have not.

MR. BURLESON: Mr. Examiner, are the witness' qualifications accepted?

MR. STAMETS: They are.

Q. Okay, Larry, I'd like to address you to a couple of matters that the Examiner raised with Mr. Burchell, I believe, and he mentioned the differential in these two

zones and he was wondering -- he asked a question particularly if this differential is substantial, and I'm sure the inference is, the inferential question was could this result in any damage to either of the zones or diminish the total production that might be obtained from the well, were the zones produced individually, as had been the case prior to this difficulty with the packer?

A. I don't believe it could be.

Q. Would you explain why you don't think any problem would result which would diminish the production from the well produced in a commingled fashion rather than individually as was the case?

A. Do you want to present this as an exhibit?

MR. BURLESON: Mr. Examiner, we have some information here which Mr. Aimes would like to mark as an exhibit, Exhibit Number Four.

Q. Well, let me ask you, do you have another copy of this exhibit?

A. I have another copy of it but it does not -- it does not continue through the time interval that that was.

Q. Do you need this to speak from?

A. I would like to look at it, yes.

Q. Okay. Would you address yourself to this, what we have marked as Exhibit Number Four, and indicate the data on that which you think is relevant in respect to the

question that I just asked?

A. Okay. This is a production history of both wells, beginning with the year 1974, continuing through the month of August, 1979. Such things as days operated, average line pressure, monthly average production, cumulative production, both gas and condensate, and total cumulative production from both formations.

As can be seen by these production histories, there has been a fluctuation in the line pressure and as a matter of fact, a slight increase in the past four or five years in the high pressure system, particularly. The low pressure system has maintained approximately between 80 and 90 psi.

With this large differential in the -- in the pipeline system pressure and the relatively low bottom hole pressure of both zones, actually, a slight fluctuation, this line pressure can explain a decrease or an increase in a well's producing ability.

Now, since there is a 200 percent increase or difference between the two bottom hole pressures, I believe it's -- as long as both zones are producing to the low pressure system, which is lower than the bottom hole -- indicated bottom hole pressure of the Pictured Cliffs, that as long as these two formations are continually produced into this low pressure line there could be no downhole commingling.

Q. Well, by that, Larry, you mean that each zone will produce the same as it would produce had commingling not occurred. As a physical matter, of course, the gas is flowing together in the wellbore, right, and as a technical matter that's commingling, but the point you were making is that the gas would still come from the zone just as if it were not commingled. Is that your point?

A. Come from the zones into the wellbore.

Q. Right, but where it, of course, would be commingled then.

A. Yes.

Q. Would you -- I'd like to address you to Exhibit Number Two. You mentioned that the differential in line pressure,existing line pressure, can make a substantial difference in the production that is obtained from one of the zones, and I think maybe that is illustrated by that exhibit, and specifically there was a decline in Mesaverde production between the years 1973 and 1974, is that correct?

A. Yes, sir.

Q. Now, would you indicate, would you look at your other exhibit there, Exhibit Number Four, and tell us what the differential existing on that system was, the average pressure was in 1973 as compared with 1974?

A. Okay. I have on this exhibit, I have only the average line pressure in 1974, which is the average

through the year of '74, which is 289 psig. I do not have the average line pressure for the year of 1973; however, it can be seen that in 1977 the line pressure had been reduced to 239 psi, which is a 50 psi drop for that three year period.

MR. STAMETS: What was the figure for '77?

A. 239 psig. And this type of a decline in pipeline pressure I believe can very definitely affect a well's producing rate in either direction.

Q. Now, let's compare the pressure existing in the Mesaverde gathering system as between 1977 and 1978. Do you have that information?

A. Yes, I do.

Q. Would you give us the information for 1977 and then '78?

A. Okay, the average line pressure during 1977, as I stated earlier, was 239 psig. The average line pressure during the year 1978 was 252 psig.

Q. Now do you think this had anything to do possibly with the differential total production, average production, during 1977 as compared with 1978?

A. Yes, I do.

Q. One other thing, do you think that the commingling of the gas as we -- as we've requested in this proceeding, could that do any physical damage to either of these zones which could have the effect of diminishing the

total reserves that might be recovered?

A. No, I don't think so.

Q. One other thing that would result from the commingling of these zones is that both zones would then be producing into a system with amuch lower pipeline pressure, is this correct?

A. That is correct.

Q. And you think this would be beneficial in removing the -- enabling the gas to remove the liquids and consequently increasing, possibly, the total recovery of gas from both zones?

A. Yes, I do.

MR. BURLESON: Mr. Examiner, I think that covers most of the things that I wanted to cover with this witness; however, you may have remaining questions with respect to the benefit of this, and I invite your further questions of Mr. Aimes.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Aimes, do you have any projections on what you anticipate the system pressure will be in that low pressure line? Any indication if it's going to go up or down?

A. I think that it's safe to say that if it

does anything, it will go down.

Q. And what is that based on?

A. Well, it's based on the fact that most of the wells that are tied to this system are low pressure wells and if we're going to continue to produce those wells, we're going to have to continue to reduce pressure in the system.

Q. What's the extent of the communication in this well? Is it perfect communication or imperfect communication? Do you get good flow from one zone to the other or not?

A. Well, it's -- it appears to me that it's definitely a situation, a clearcut situation, at the present time that we are feeding the Pictured Cliffs formation with Mesaverde gas, but as I said before, this problem will be eliminated when the well's tied into that low pressure system. It's -- it's communicated. I would say that it's being communicated through probably something like a hole in the tubing and it may be a parted string of tubing.

Q. Do your records show how many shut-in days were on for this well in say the last month, the last year?

A. How many days the well was shut-in?

Q. Right.

A. Both sides? The well --

Q. I'm primarily interested in the low pressure side.

A. The low pressure side? Well, the well produced for the year 1978 360.5 days, so you assume that there is 365 days in a year this well was not shut down, but about four and a half days.

Q. That was for 1978?

A. Yes, sir.

Q. Okay. Is there any reason that you couldn't tie the Mesaverde into the low pressure side without downhole commingling?

MR. BURLESON: Mr. Examiner, I'd like to address myself to that question. I'll permit Mr. Aimes to go ahead and answer it, but I would like to say something to that -- with respect to that question, too.

MR. STAMETS: All right, I'll take the answer from anybody.

MR. BURLESON: Well, my answer would be that this would create correlative rights problems. If we could do that without doing -- tying them all into the bore -- all the Mesaverde wells into the same low pressure system, it seems to me that that would be improper.

MR. STAMETS: How are you going to avoid that with your downhole commingled well?

MR. BURLESON: We may have to go to that. We may have to go to that.

A. I think that there's probably a situation

here involving pipeline capacity. I doubt seriously that the low pressure system would be capable of handling the capacity gas capacity without enlarging it, of course, that would be necessary if we begin tying Mesaverde wells into that low pressure system.

Q. Is there any kind of equipment that you can install in this well which could prevent cross flow between the two zones?

A. I don't exactly -- I don't exactly -- I mean, yeah, we can go back and dually complete it, which --

Q. Short of that, more economic?

A. Right now I can't think of anything.

MR. STAMETS: Any other questions of this witness?

MR. BURLESON: I have one additional question.

REDIRECT EXAMINATION

BY MR. BURLESON:

Q. Larry, I'm not sure, maybe you did give the pressure that exists in this low pressure system, but I didn't hear it. Would you tell us what that is?

A. Okay, it's between 80 and 90 psi. During the year 1974 it had a pressure of 111 psi. From '75 through '79 the pressure has averaged between 80 and 90 psi.

MR. STAMETS: Any other questions of the witness? He may be excused.

Anything further in this case?

We'll take the case under advisement.

(Hearing concluded.)

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

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

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

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6702 heard by me on 11-28 1979.

Richard L. Stamets, Examiner
Oil Conservation Division

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date NOVEMBER 28, 1979 Time: 9:00 A.M.

NAME	REPRESENTING	LOCATION
W. T. Kellahin	Kellahin & Kellahin	Santa Fe
Paul W. Burchell	El Paso Natural Gas Co.	El Paso, Tx
Jiunn S. Wang	El Paso Natural Gas Co	El Paso, Tx.
David T. Burleson	El Paso Natural Gas Co,	El Paso, TX
CHARLES F. KALTEYER	GULF OIL	MIDLAND
Chesley Blackham	Gulf Oil	Midland, Tx,
Daniel B Kowert	Gulf Oil	Midland Tx
C. D. STENBERG	Gulf Oil	MIDLAND TX
William F. Carr	Campbell & Black	Santa Fe
[illegible]	[illegible]	Midland
Bryan L Stamp	Hondo Oil & Gas Co	MIDLAND
Hale M. Rich	Hondo Oil & Gas Co	Midland
Ray Nordhaus	El Paso Exploration Co	El Paso
L. A. Dimes	El Paso Exploration Co.	FARMINGTON N. M.
R Hughes & Mardis Brown	Capital Observer	Santa Fe
[illegible]	[illegible]	ROSWELL

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date NOVEMBER 28, 1979 Time: 9:00 A.M.

NAME	REPRESENTING	LOCATION
Jay Kirkpatrick	Montgomery Lawrence	S.F.
Roy C. Williamson	Sipes, Williamson & Assoc.	
Joe Bates	Fortuno-Lewis Corp.	Midland, Tex.
Chester Lambert	Dorchester Exp, Inc.	
Ed Hecker	Co2 in Action	Midland, Tex.
Leonard Kersh	Co2 in Action	Amarillo Tx
Monty J Gist	Enserch Exploration, Inc	Amarillo Tx
Bob Barberousse	Kellar Inc	Midland, Tx
Jim Sterling	Yost Barbeerousse & Yost	Midland Tx
J. O. Neeman	Moorhead et al	Santa Fe
M. R. Chambers	Mobil Oil Corp	
Chad Dickerson	Mobil Oil Corp	KLB.
	Gates et al	Houston Tx
Kenneth Harlan	Texas Northern Corp	Hobbs, N.M.
	Harlan Drilling Co.	
William C. Lyons		Artesia NM
H. W. Benischek	Rift Engineering	Farmington, N.M.
	Independent - Self	Santa Fe, NM
		Albuquerque

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
28 November 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. CASE 6702

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: David T. Burleson, Esq.
El Pasc Natural Gas Company
El Paso, Texas.

I N D E X

E X H I B I T S

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

MR. STAMETS: We'll call the next Case 6702.

MR. PADILLA: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico.

MR. BURLESON: Applicant is ready. David T. Burleson, with the law firm of Montgomery, Andrews and Hannahs.

MR. Examiner, we'll have two witnesses and possibly four, so perhaps we should have them all sworn.

MR. STAMETS: I'd like to have them stand and be sworn, please.

Any other appearances in this case?

(Witnesses sworn.)

PAUL W. BURCHELL

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

DIRECT EXAMINATION

BY MR. BURLESON:

Q. Mr. Burchell, will you state your name please and where you reside for the record?

A. Yes. My name is Paul W. Burchell. That's

B-U-R-C-H-E-L-L. And I reside in El Paso, Texas.

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

A. I'm employed by the El Paso Natural Gas Company as Senior Proration Engineer.

Q. As a proration engineer, have you previously testified before the Division or one of its examiners?

A. Yes, I have.

Q. And your qualifications were accepted by the Division on that occasion?

A. Yes, they were.

Q. Are you familiar with Case 6702 and what El Paso is seeking in that case?

A. Yes, I am.

MR. BURLESON: Are the witness' qualifications acceptable to the Division?

MR. STAMETS: They are.

Q. Who is the operator of the well which is the subject of this case, Mr. Burchell?

A. El Paso Natural Gas Company is the operator.

Q. What is El Paso seeking in Case 6702?

A. We are seeking permission to downhole commingle gas and condensate of the Blanco Mesaverde Gas Pool with gas of the South Blanco Pictured Cliffs Gas Pool, and

produce this gas through one meter in the San Juan 27-5 Unit Well No. 67. This well is located in Unit B of Section 31, Township 27 North, Range 5 West, Rio Arriba County, New Mexico. This well presently produces from both these formations as a dual completion.

El Paso proposes that the allocation of gas and fluids to each of these formations be divided in such a manner that certain percentages of the production would be considered Mesaverde and the remaining portion would be considered Pictured Cliffs.

The method of allocating production will be explained later on my testimony.

Q. Has there -- has a problem developed with respect to this well in recent years?

A. Yes. The 1979 packer leakage test indicated that communication between the two zones was taking place in the dually completed well.

Q. Have you been able to determine where this leak exists? Within the well?

A. No, we were not able to determine exactly where the leak exists. A temperature survey was run but the tool had difficulty in certain tight spots in the tubing and the test was simply inconclusive.

Q. Why is El Paso asking to downhole commingle gas from the two zones involved in this proceeding?

Q. Well, downhole commingling is considered by El Paso to be the most economic and conservative method to undertake. This is due to the low productivity of both zones and due to the high cost of repairing the suspected leak in the well.

A. Do you have an exhibit which indicates the equipment that's located in the hole?

A. Yes, I do.

Q. And that is Exhibit Number --

A. Number One.

Q. Would you please explain what that exhibit demonstrates, please?

A. It is a diagrammatic sketch of the equipment which has been marked as El Paso Natural Gas Company Exhibit Number One. The exhibit shows there are two strings of tubing installed in the San Juan 27-5 Unit No. 67 Well. It also shows that a Baker Model R production packer is set at 3353 feet. The well is perforated from 3106 feet to 3152 feet in the Pictured Cliffs Pool above the packer, and the Mesaverde Pool is perforated from 4810 feet to 5378 feet below the packer.

The Pictured Cliffs side of the well produces through a 1-1/4 inch tubing and this tubing is set at 3140 feet, while the Mesaverde is produced through a 2-1/16 inch tubing set at 5329 feet.

Q. You've also prepared an exhibit which indicates the production history of this well, too, have you not?

A. Yes, I have.

Q. Would you please explain that exhibit, please?

A. El Paso Natural Gas Company Exhibit Number Two shows the South Blanco Pictured Cliffs and Blanco Mesaverde formations gas production performance since 1970. The bottom part of the Exhibit Number Two, are the years indicated from 1970 to 1979, with 1970 being on the lefthand side of the graph.

The lefthand side of the graph vertically shows the yearly average daily production rate in Mcf of gas per day, so that is the average daily production for each formation for that particular year.

The righthand side of the graph, which is outlined in yellow, shows the Mesaverde production, it's percent of the total amount of gas produced for each year.

The solid line on the bottom of the graph shows the Pictured Cliffs gas production. In 1970 it was averaging 30 Mcf of gas per day and it continued to decline to the year of 1977, and at that time it was producing 21 Mcf of gas per day. Then in 1978 it started to increase. It went to 35 and in 1979 it went to 139 Mcf of gas per day.

The middle solid dashed line on the graph

is showing the Mesaverde gas production for each one of these years, or its daily average. It starts off in 1970 around 471 Mcf of gas per day for that year and it decreases with a normal decline to the year 1977, producing about 324 Mcf of gas per day. Then after 1977 its producing rate drops drastically. In 1978 to 261 and in 1979 to 146 Mcf of gas per day.

The very top broken dashed line, which is also outlined in yellow, shows the Mesaverde's percent of the total amount of gas produced for each year.

As can be observed from the exhibit, the Mesaverde formation has been responsible for 93 to 95 percent of the total gas produced from the well between the years 1970 and 1977.

During 1978 and 1979 the Mesaverde production was 88 percent and then 52 percent, respectively, of the total well's production; however, I do not consider this Mesaverde production to be respective of actual production for the zone during '78 and '79 due to the indicated communication problem.

Now, Mesaverde production amounts to 94.067 percent of the total gas produced from 1970 to 1977. This figure agrees very well with the 94.03 percent which was the measured production for the first two months of 1978. That is for January and February, and these two months were prior

to the last positive packer leakage test, which was taken in March of '78.

I therefore conclude that leakage started to occur in this well sometime after March of 1978.

Q. What further conclusions can you draw from examination of the data indicated on Exhibit Number Two?

A. Well, in my opinion, the flow rates for both the Mesaverde and the Pictured Cliffs are very small. The Mesaverde zone in the San Juan 27-5 Unit No. 67 Well is prorated marginal, and the Pictured Cliffs is prorated exempt marginal. As of January and February of 1978 the Mesaverde production was averaging 310 Mcf of gas per day and the Pictured Cliffs was making 90 Mcf of gas per day.

Q. Do you have any information regarding the pressure existing with respect to the Mesaverde and the Pictured Cliffs formation encountered in these wells and any information with regard to the fluid characteristics in those -- as to those two formations?

A. Yes, sir. Prior to the communication problem between the two zones, the Mesaverde was producing a very slight amount of water, but it was averaging about 24 barrels of condensate per month, and had a cumulative of around 8049 barrels of condensate.

Now the Pictured Cliffs produced no condensate but it did make between 1 and 2 barrels of water per day

Now with regard to pressures, based on the extrapolation of State tests, the Pictured Cliffs side of the well had a shut-in tubing pressure of 138 pounds per square inch absolute. This is as of July the 1st, 1979.

MR. STAMETS: Is that an estimated figure?

A. No, this is -- it's estimated or extrapolated from prior State tests.

The corresponding bottom hole pressure is estimated to be 148 psia.

Now also based on extrapolation of State tests, the Mesaverde's shut-in tubing pressure was 400 psia with a corresponding bottom hole pressure estimated at 450 psia.

Q. Do you believe that there would be any problem by reason of the fluid that's being produced from these zones and the pressure differential that exists between the two zones?

A. To answer your question, I believe, yes, sir, I don't believe there will be any problems because of the small pressure differential and the small volume of liquids. I do not expect any migration of gas or fluids from one formation to the other, particularly if the well is continually produced.

Q. What advantages would accrue from the commingling of these two zones, in your view?

A. Mr. Examiner, I feel that there are really two main advantages. First, it is believed that a certain amount of additional condensate could be obtained from the Mesaverde side of the well, and possibly an additional amount of gas from the Pictured Cliffs could be obtained that otherwise would not be produced. It is estimated that the Pictured Cliffs would produce at least 19 Mcf of gas per day and when added to the Mesaverde's 310 Mcf of gas per day, this will be a greater volume of gas to help lift the Mesaverde condensate and the Pictured Cliffs water.

It is further estimated that the Mesaverde has around 1900 MMCF of gas remaining reserves, and the Pictured Cliffs has around 55 MMCF of remaining reserves, which can be recovered through commingling.

Now besides efficiency in production, the second advantage of commingling is, of course, economics, better economics. To repair and dually complete the existing well would cost $18,000; however, it will only cost about $10,390 to downhole commingle the Mesaverde with the Pictured Cliffs.

Commingling, therefore, Mr. Examiner, represents a considerable savings in monies.

Q. If the Division approval is granted here, do you have a recommendation as to a method by which the gas and condensate will be allocated as between the two zones,

being the Pictured Cliffs and the Mesaverde?

A. Yes, sir. Based on my prior testimony related to the average daily production of gas for the months of January and February, 1978, just prior to the last positive packer leakage test, it is recommended that 94.03 percent of the well's gas production be attributed to the Blanco Mesaverde Pool and 5.97 percent to the South Blanco Pictured Cliffs Pool. It is further recommended that condensate production be allocated 100 percent to the Mesaverde formation and any water production be allocated 100 percent to the Pictured Cliffs formation.

Q. Do you have any idea as to what the ownership is in the two formations that are the subject of this hearing?

A. No, Mr. Examiner, we have another witness here that is an individual with El Paso Natural Gas Company's land department, and he is prepared to explain the ownership and the nature of the various contracts involved in this unit.

Q. In your opinion would granting of this application protect correlative rights and prevent waste?

A. Yes, sir.

Q. Do you have anything further to present in this case?

A. Not at this time.

MR. BURLESON: Mr. Examiner, we request that Exhibits One and Two be accepted into evidence, and this concludes our examination of this witness and we tender him for cross examination.

MR. STAMETS: These exhibits will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Burchell, what was the cost of repairing the well?

A. Yes, sir, it's -- to repair the well and put it back in its state with no leakage and dually complete it, will be $18,000.

Q. And then the cost for downhole commingling?

A. We estimate it at $10,390.

Q. Now the pressures that you have there, 148 psia and 450, that represents more than a 200 percent differential between the two zones, does it not?

A. Yes, sir, it would.

Q. Isn't that rather substantial pressure differential?

A. It's -- I would consider small but probably as comparing it with other downhole commingling wells it is probably higher than past experience.

Q. Now, Mr. Burchell, also looking at the production chart which you supplied us with here --

A. Right.

Q. -- it would appear that the production started changing at the end of 1977. We had fairly stable history on each zone before that time.

A. Right.

Q. And just my own analysis of this thing, it seems to indicate that in the two years, 1977 to 1979, we had a decline of 70 Mcf a day in total production.

A. Yes, sir, that's true.

Q. From the two zones --

A. Yes.

Q. -- and in the previous two years the decline was only 20 Mcf, and so it appears to me we've got downhole commingling in this well already and we're experiencing rather relatively severe production decline.

A. That might be explained because of two reasons. Wherever that leak is, whether it's in the Mesaverde tubing or the packer has a problem, there are fluids, water, say 2 barrels a day, coming from the shallow zone, the Pictured Cliffs, and coming down on the packer and into the leak, and that might have some effect on the Mesaverde's overall production, but I think the main reason for this

decline in overall total production would be the fact that we have two systems out there gathering the gas from this well, a low pressure system for the Pictured Cliffs and a high pressure system for the Mesaverde. The Mesaverde production after 1977, it is my understanding that the system increased, the pipeline pressure increased, and because of this increase, would also have some effect of decreasing the amount of flow of gas from the Mesaverde formation into the pipeline.

That is my only explanation.

Q. And again, if you've got downhole commingling your low pressure system on the PC ought to be siphoning off some more from the Mesaverde.

A. It certainly -- it certainly did go up. But I see what you mean.

Q. What kind of line pressures are you talking about?

A. I believe the high pressure system is around 300 pounds and 80 pounds on the low side.

Q. And which system would the commingle stream go into?

A. Well, more than likely, we would certainly try to go through that leak and up the wellhead into the low --

Q. No, no.

A. -- pressure system.

Q. I mean once you, if you are authorized to downhole commingle --

A. Oh, excuse me.

Q. -- which would be --

A. Then it would be, both zones would be commingled downhole, and the gas would go into the low pressure system.

MR. STAMETS: Any other questions of this witness? He may be excused.

MR. BURCHELL: Thank you, Mr. Examiner.

MR. BURLESON: Mr. Examiner, we have another witness right now, Mr. Ray Nordhausen. We also would like to return to the point which you raised a moment ago with a third witness, who we'll put on after Mr. Nordhausen.

MR. STAMETS: Fine.

RAY NORDHAUSEN

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

DIRECT EXAMINATION

BY MR. BURLESON:

Q. Would you please state your name and where you reside?

A. My name is Ray Nordhausen and I live in El

Paso.

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

A. I'm employed by The El Paso Exploration Company, a subsidiary of the El Paso Company, as petroleum landman.

Q. Have you previously testified before the Oil Conservation Division or one of its examiners as an expert in petroleum land management?

A. Yes.

Q. Were your qualifications accepted by the Division on that occasion?

A. Yes.

Q. Is your responsibility to administer land activities with regard to the 27-5 Unit and specifically the request to the Unit Well No. 36, which is the subject of this hearing?

A. Yes, No. 67.

MR. BURLESON: Mr. Examiner, are the witness' qualifications acceptable?

MR. STAMETS: They are.

Q. Mr. Nordhausen, in conjunction with your responsibilities in the land department, have you had occasion to investigate the ownership and the identity of the owners of production from the Pictured Cliffs formation and

the Mesaverde formation in the San Juan 27-5 Unit Well No. 67?

A. Yes.

Q. Please discuss your findings with regard to this matter in general terms.

A. Pictured Cliff production is owned by the owners of Pictured Cliffs rights within the 18,566-acre Pictured Cliffs participating area of the 27-5 Unit.

Mesaverde production is owned by the owners of Mesaverde rights within the 20,804-acre Mesaverde participating area of the 27-5 Unit.

To a large extent the participating areas overlap, thus it is not surprising that the same persons or firms are interest owners in the production from both the Pictured Cliffs and Mesaverde formations, except for eight royalty owners within the Mesaverde participating area, who have no interest in the Pictured Cliffs participating area. It should be noted, however, that even though the owners are identical as to both formations, with the exception stated, such entire owners' interests do vary as between the two formations, though in most instances the differences are small.

For example, Federal royalty interest in Pictured Cliffs production is 10.1 percent; in the Mesaverde production it is 10 percent.

The State royalty interest in Pictured

Cliffs production is 1.22 percent. In Mesaverde production it is 1.54 percent.

The greatest difference in a party's interest in production from the two formations is that of Northwest Pipeline Corporation whose working interest in Pictured Cliffs production is 9.7 percent. In Mesaverde production it is 15.99 percent.

Q. Now, have you contacted all of these owners and sought their approval of what we are seeking in this application; that is, permission to downhole commingle with respect to these two zones?

A. Yes.

Q. How were they contacted?

A. By letters dated October 11th, 1979; October 12th, 1979; and by a follow-up letter of November 21st, 1979.

Q. What has been the response to date from such letters?

A. Of the 45 working interest owners contacted, 12, which is all of them, 12 have approved with such approving owners owning 66 percent in the Pictured Cliffs and 67 percent in the Mesaverde.

Of the 29 royalty owners, only the State of New Mexico and six others have approved.

MR. STAMETS: How many royalty owners were

there?

A. 20; 20 royalty owners.

MR. STAMETS: And what were the numbers that had approved?

A. No, of 29 royalty owners only the State of New Mexico and six others have approved.

MR. BURLESON: That would be 7, right?

A. Yeah, yeah, 7. Of the 49 overriding royalty owners, 14 have approved. The remaining interest owners did not respond; however, all owners were advised of the time and place of the hearing and that they have a right to appear to state their position regarding our proposal.

Q. (Mr. Burleson continuing.) Have you prepared an exhibit which contains a photocopy of the letters which you just referred to and a photocopy of the signature page of those approving owners?

A. Yes. This collection of material has been marked as El Paso's Exhibit Number Three.

Q. Let me call your attention, please, to your letter of October the 11th. There are percentages appearing toward the bottom of the page and I would like to ask you if those percentages are correct, precisely correct?

A. No. The figure should be 5.97 percent rather than 5.758 percent, and 94.03 percent rather than 94.242 percent.

Q. In other words, these were very small differences and apparently resulted from an error in calculation?

A. Yes.

Q. You earlier stated that Exhibit Number Three was prepared by you or under your supervision, is that correct?

A. Yes.

MR. BURLESON: Mr. Examiner, I move admission of Exhibit Number Three and I tender this witness for cross examination.

MR. STAMETS: Exhibit Number Three will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Nordhausen, as I understand it, this is a unit well and you have two different participating areas and slight differences in interest in the two participating areas?

A. That's correct.

MR. STAMETS: Any other questions of this witness?

MR. BURLESON: I might ask one more question just to highlight something I think has already been covered.

REDIRECT EXAMINATION

BY MR. BURLESON:

Q. You mentioned that aside from those approvals which you obtained in response to your letters, that you heard nothing further from any of these other parties, so that means that there were no objections lodged with you to this proposal?

A. That is correct.

Q. Procedure.

MR. BURLESON: That's all I have, Mr. Examiner.

MR. STAMETS: Any other questions of this witness? He may be excused.

I'd like to ask Mr. Burchell a question. He can sit right there.

MR. BURLESON: Surely.

MR. BURCHELL: Yes, sir.

MR. BURLESON: You're still under oath.

MR. STAMETS: Mr. Burchell, how will this well be completed if you're authorized to downhole commingle?

MR. BURCHELL: Let's see. Well, of course, the -- both strings of tubing and the packer will be removed and we'll just run a -- just a single string of tubing down the hole and I believe that's -- it will just go -- be com-

mingled in that manner.

MR. STAMETS: Okay, thank you.

MR. BURLESON: To elaborate a bit on a couple of matters that you raised, Mr. Examiner, we'd like to call Mr. Larry Aimes.

MR. STAMETS: Okay.

MR. BURLESON: Mr. Aimes was sworn earlier.

LARRY AIMES

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

DIRECT EXAMINATION

BY MR. BURLESON:

Q Larry, would you state your full name for the record, and where you reside?

A Okay, my name is Larry Aimes and I reside in Farmington, New Mexico.

Q And by whom are you employed and in what capacity?

A I am employed by El Paso Exploration Company, a subsidiary of The El Paso Company, and my title is Division Project Drilling Engineer.

Q And what specifically, in a general way, are your responsibilities in that capacity?

A. In regards to this situation, I prepare or deal directly with most -- all well workovers that are -- that are done, that are prepared. I deal with both the State and the USGS in matters concerning drilling of new wells. I work on special projects; numberous duties along that line.

Q. Would you give a brief resume of your educational background, please?

A. Okay. I'm a graduate with a BS in mechanical engineering from New Mexico State University. I've worked in the oil and gas industry for twelve years and -- or for thirteen years, and have worked for the last ten and a half years for El Paso Natural Gas.

Q. In --

A. As a drilling engineer.

MR. BURLESON: Mr. Examiner -- well, let me ask you this, also.

Q. Have you ever testified before this Commission as a drilling engineer?

A. No, I have not.

MR. BURLESON: Mr. Examiner, are the witness' qualifications accepted?

MR. STAMETS: They are.

Q. Okay, Larry, I'd like to address you to a couple of matters that the Examiner raised with Mr. Burchell, I believe, and he mentioned the differential in these two

zones and he was wondering -- he asked a question particularly if this differential is substantial, and I'm sure the inference is, the inferential question was could this result in any damage to either of the zones or diminish the total production that might be obtained from the well, were the zones produced individually, as had been the case prior to this difficulty with the packer?

A. I don't believe it could be.

Q. Would you explain why you don't think any problem would result which would diminish the production from the well produced in a commingled fashion rather than individually as was the case?

A. Do you want to present this as an exhibit?

MR. BURLESON: Mr. Examiner, we have some information here which Mr. Aimes would like to mark as an exhibit, Exhibit Number Four.

Q. Well, let me ask you, do you have another copy of this exhibit?

A. I have another copy of it but it does not -- it does not continue through the time interval that that was.

Q. Do you need this to speak from?

A. I would like to look at it, yes.

Q. Okay. Would you address yourself to this, what we have marked as Exhibit Number Four, and indicate the data on that which you think is relevant in respect to the

question that I just asked?

A. Okay. This is a production history of both wells, beginning with the year 1974, continuing through the month of August, 1979. Such things as days operated, average line pressure, monthly average production, cumulative production, both gas and condensate, and total cumulative production from both formations.

As can be seen by these production histories, there has been a fluctuation in the line pressure and as a matter of fact, a slight increase in the past four or five years in the high pressure system, particularly. The low pressure system has maintained approximately between 80 and 90 psi.

With this large differential in the -- in the pipeline system pressure and the relatively low bottom hole pressure of both zones, actually, a slight fluctuation, this line pressure can explain a decrease or an increase in a well's producing ability.

Now, since there is a 200 percent increase or difference between the two bottom hole pressures, I believe it's -- as long as both zones are producing to the low pressure system, which is lower than the bottom hole -- indicated bottom hole pressure of the Pictured Cliffs, that as long as these two formations are continually produced into this low pressure line there could be no downhole commingling.

Q. Well, by that, Larry, you mean that each zone will produce the same as it would produce had commingling not occurred. As a physical matter, of course, the gas is flowing together in the wellbore, right, and as a technical matter that's commingling, but the point you were making is that the gas would still come from the zone just as if it were not commingled. Is that your point?

A. Come from the zones into the wellbore.

Q. Right, but where it, of course, would be commingled then.

A. Yes.

Q. Would you -- I'd like to address you to Exhibit Number Two. You mentioned that the differential in line pressure,existing line pressure, can make a substantial difference in the production that is obtained from one of the zones, and I think maybe that is illustrated by that exhibit, and specifically there was a decline in Mesaverde production between the years 1973 and 1974, is that correct?

A. Yes, sir.

Q. Now, would you indicate, would you look at your other exhibit there, Exhibit Number Four, and tell us what the differential existing on that system was, the average pressure was in 1973 as compared with 1974?

A. Okay. I have on this exhibit, I have only the average line pressure in 1974, which is the average

through the year of '74, which is 289 psig. I do not have the average line pressure for the year of 1973; however, it can be seen that in 1977 the line pressure had been reduced to 239 psi, which is a 50 psi drop for that three year period.

MR. STAMETS: What was the figure for '77?

A. 239 psig. And this type of a decline in pipeline pressure I believe can very definitely affect a well's producing rate in either direction.

Q. Now, let's compare the pressure existing in the Mesaverde gathering system as between 1977 and 1978. Do you have that information?

A. Yes, I do.

Q. Would you give us the information for 1977 and then '78?

A. Okay, the average line pressure during 1977, as I stated earlier, was 239 psig. The average line pressure during the year 1978 was 252 psig.

Q. Now do you think this had anything to do possibly with the differential total production, average production, during 1977 as compared with 1978?

A. Yes, I do.

Q. One other thing, do you think that the commingling of the gas as we -- as we've requested in this proceeding, could that do any physical damage to either of these zones which could have the effect of diminishing the

total reserves that might be recovered?

A. No, I don't think so.

Q. One other thing that would result from the commingling of these zones is that both zones would then be producing into a system with amuch lower pipeline pressure, is this correct?

A. That is correct.

Q. And you think this would be beneficial in removing the -- enabling the gas to remove the liquids and consequently increasing, possibly, the total recovery of gas from both zones?

A. Yes, I do.

MR. BURLESON: Mr. Examiner, I think that covers most of the things that I wanted to cover with this witness; however, you may have remaining questions with respect to the benefit of this, and I invite your further questions of Mr. Aimes.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Aimes, do you have any projections on what you anticipate the system pressure will be in that low pressure line? Any indication if it's going to go up or down?

A. I think that it's safe to say that if it

does anything, it will go down.

Q. And what is that based on?

A. Well, it's based on the fact that most of the wells that are tied to this system are low pressure wells and if we're going to continue to produce those wells, we're going to have to continue to reduce pressure in the system.

Q. What's the extent of the communication in this well? Is it perfect communication or imperfect communication? Do you get good flow from one zone to the other or not?

A. Well, it's -- it appears to me that it's definitely a situation, a clearcut situation, at the present time that we are feeding the Pictured Cliffs formation with Mesaverde gas, but as I said before, this problem will be eliminated when the well's tied into that low pressure system. It's -- it's communicated. I would say that it's being communicated through probably something like a hole in the tubing and it may be a parted string of tubing.

Q. Do your records show how many shut-in days were on for this well in say the last month, the last year?

A. How many days the well was shut-in?

Q. Right.

A. Both sides? The well --

Q. I'm primarily interested in the low pressure side.

A. The low pressure side? Well, the well produced for the year 1978 360.5 days, so you assume that there is 365 days in a year this well was not shut down, but about four and a half days.

Q. That was for 1978?

A. Yes, sir.

Q. Okay. Is there any reason that you couldn't tie the Mesaverde into the low pressure side without downhole commingling?

MR. BURLESON: Mr. Examiner, I'd like to address myself to that question. I'll permit Mr. Aimes to go ahead and answer it, but I would like to say something to that -- with respect to that question, too.

MR. STAMETS: All right, I'll take the answer from anybody.

MR. BURLESON: Well, my answer would be that this would create correlative rights problems. If we could do that without doing -- tying them all into the bore -- all the Mesaverde wells into the same low pressure system, it seems to me that that would be improper.

MR. STAMETS: How are you going to avoid that with your downhole commingled well?

MR. BURLESON: We may have to go to that. We may have to go to that.

A. I think that there's probably a situation

here involving pipeline capacity. I doubt seriously that the low pressure system would be capable of handling the capacity, gas capacity without enlarging it, of course, that would be necessary if we begin tying Mesaverde wells into that low pressure system.

Q. Is there any kind of equipment that you can install in this well which could prevent cross flow between the two zones?

A. I don't exactly -- I don't exactly -- I mean, yeah, we can go back and dually complete it, which --

Q. Short of that, more economic?

A. Right now I can't think of anything.

MR. STAMETS: Any other questions of this witness?

MR. BURLESON: I have one additional question.

REDIRECT EXAMINATION

BY MR. BURLESON:

Q. Larry, I'm not sure, maybe you did give the pressure that exists in this low pressure system, but I didn't hear it. Would you tell us what that is?

A. Okay, it's between 80 and 90 psi. During the year 1974 it had a pressure of 111 psi. From '75 through '79 the pressure has averaged between 80 and 90 psi.

MR. STAMETS: Any other questions of the witness? He may be excused.

Anything further in this case?

We'll take the case under advisement.

(Hearing concluded.)

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

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

Sally W. Boyd, C.S.R.

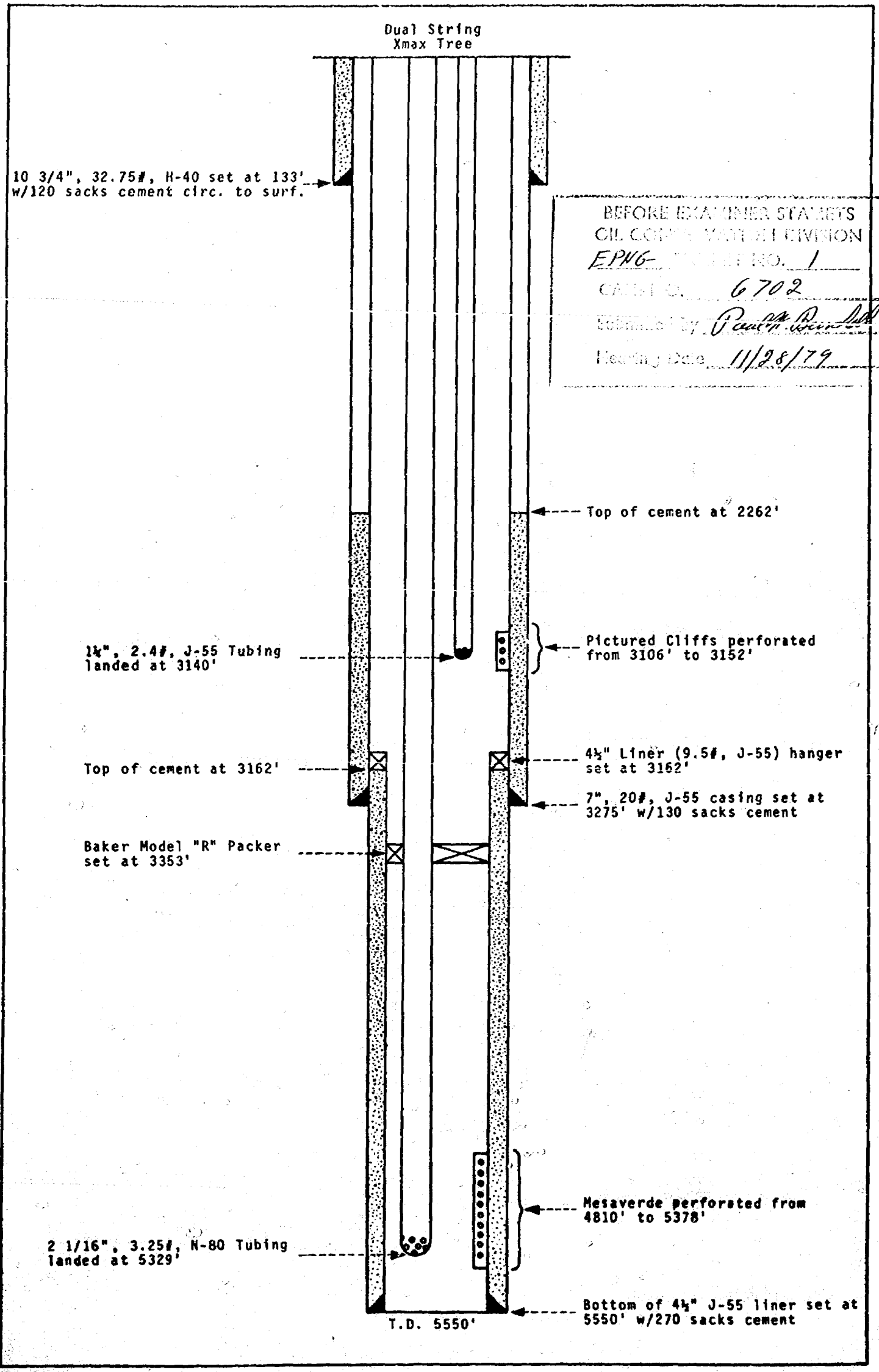
I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. ____ heard by me on _____ 19____.

_____, Examiner
Oil Conservation Division

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

EXHIBIT NO. 1

SCHEMATIC DIAGRAM of DUALLY-COMPLETED
El Paso Natural Gas Co. San Juan 27-5 Unit No. 67 (PM)
Unit B of Section 31, T-27-N, R-5-W
Rio Arriba County, New Mexico

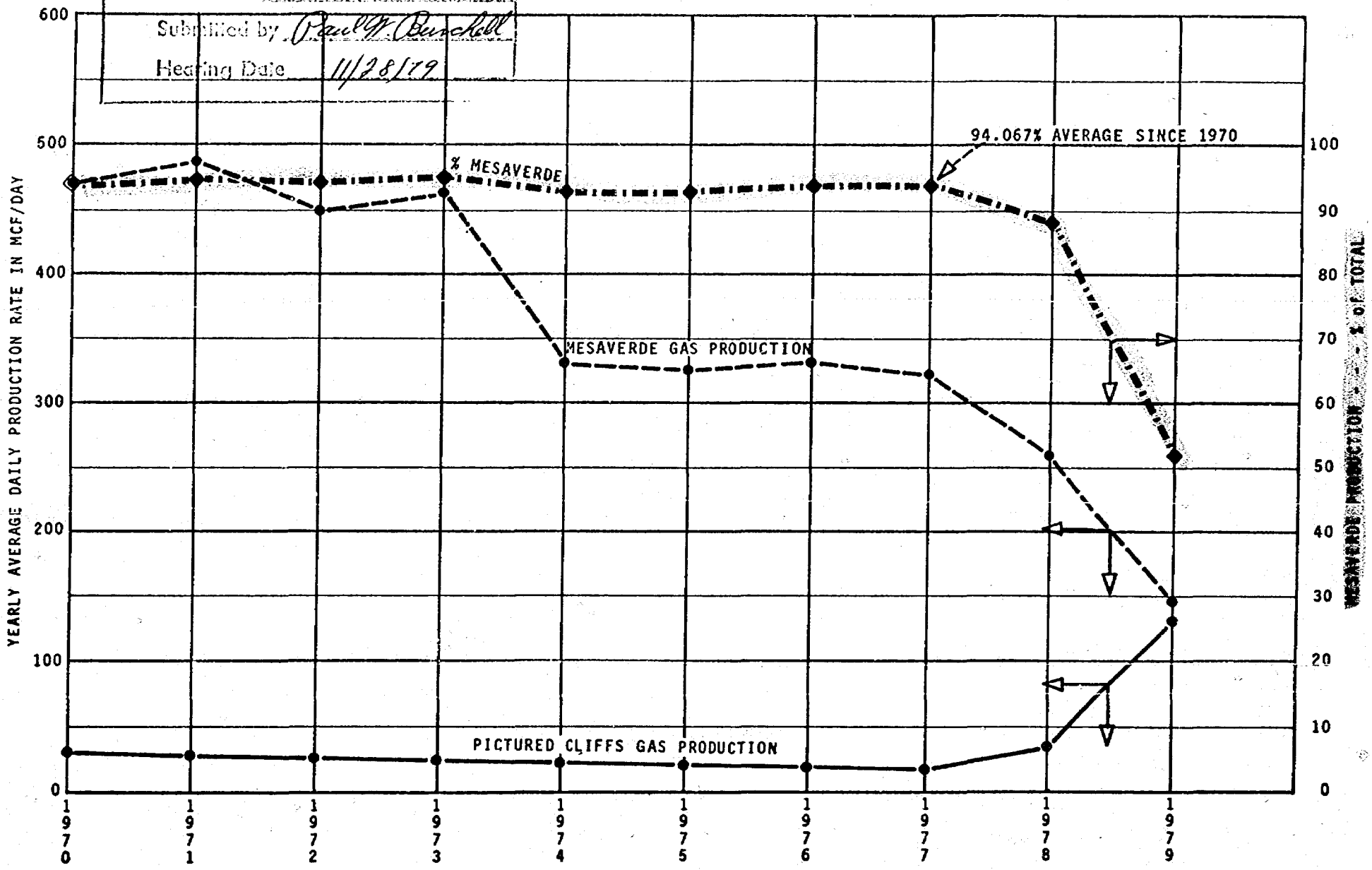


BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 1
CASE NO. 6702
Submitted by Pacific Northwest Pipeline
Hearing Date 11/28/79

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 2
CASE NO. 6709
Submitted by Paul F. Burchell
Hearing Date 11/28/79

NATURAL GAS PRODUCTION
El Paso Natural Gas Company
San Juan 27-5 Unit Well No. 67
Unit B of Section 31, T 27N - R5W
Rio Arriba County, New Mexico

EXHIBIT NO. 2



El Paso NATURAL GAS COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-543-2600

October 11, 1979

BEFORE THE OIL CONSERVATION DIVISION
EPNG Exhibit No. 3
Case No. 6702
Submitted by Roy Nordhausen
Hearing Date 11-28-79

TO ALL ROYALTY AND OVERRIDING ROYALTY
INTEREST OWNERS IN THE SAN JUAN 27-5 UNIT

Re: Interzonal Communication
San Juan 27-5 Unit #67
Pictured Cliffs - Mesaverde
SW/4 of Section 31, T-27-N, R-5-W
Rio Arriba County, New Mexico

Application has been made to the New Mexico Oil Conservation Division for approval to downhole commingle the production from the Pictured Cliffs formation with production from the Mesaverde formation in the captioned well.

In the hearing on said application, we will propose that the production be allocated between the two formations as follows:

1. Determine the Pictured Cliffs production and the Mesaverde production for January and February, 1978. These are the two months prior to the last packer leakage test which indicated no communication.

2. Total the production from both zones.

3. Divide the Pictured Cliffs production by the total production to determine a Pictured Cliffs percentage.

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

5.97

94.03

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the ____ day of _____, 1979.

By: _____

RHN:pw
Enclosure

El Paso EXPLORATION COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978

PHONE: 915-543-2600

November 21, 1979

TO ALL WORKING INTEREST OWNERS, ALL
ROYALTY OWNERS AND ALL OVERRIDING
ROYALTY OWNERS SHOWN ON THE ATTACHED LIST

Re: San Juan 27-5 Unit #67
Pictured Cliffs - Mesaverde
SW/4 of Section 31, T-27-N, R-5-W
Rio Arriba County, New Mexico

Gentlemen:

As we advised you in our letters of October 11, 1979 and October 12, 1979, application has been made to the New Mexico Oil Conservation Division for approval to downhole commingle the production from the Pictured Cliffs formation with production from the Mesaverde formation in the captioned well. The application is schedule to be heard November 28, 1979.

We have not received a response from you; accordingly, we hereby give notice to each of you that you have the right to appear at said hearing to either support or oppose our application.

Should you have any questions, you may reach me at (915) 543-2653.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department

RHN:pw

LIST OF INTEREST OWNERS ATTACHED TO LETTER
DATED NOVEMBER 21, 1979

Mr. J. R. Abercrombie

J. R. Abraham

William E. Alsup, Jr. Ancilliary Executor
of the Estate of William E. Alsup, Deceased

Freddy Arnold

Richard Arnold

Stanley Arnold

Lona L. Bingham

Brookhaven Oil Corp.

Mr. Donald R. Candelaria
c/o Mrs. Eulogia C. Candelaria

Mrs. Eulogia C. Candelaria

Nickie G. Candelaria

Paul M. Candelaria

Mr. J. Fidel Candelaria
c/o Mrs. Eulogia C. Candelaria

Mr. Orlando Candelaria

Genevieve Candelaria, Personal Representative
of the Estate of Pablo Leopoldo Candelaria

Catholic Church of Jarmillo

Marie Courtney

Thomas Dugan, et ux

Jose Perfect Esquibel

Maxmilliamo Esquibel

The First National Bank of Santa Fe,
Trustee of Manuel A. Sanchez

Flag-Redfern Oil Company
United States Geological Survey

Mr. Gerald E. Harrington

Mr. Thomas H. Harrington

Col. Langdon Dewey Harrison
Trustee for Omega E. Quinn

Mrs. Catherine M. Harvey

Frieda Holt

Hondo Oil and Gas Co.

Mrs. Clara Lopez, Guardian in the
Estate of Kathryn Arnold, a Minor

Lucas Martinez
Parkview, New Mexico 87551

Mr. Ralph H. McCullough

Mr. T. H. McElvain, Jr.

T. H. McElvain Oil & Gas Prop.

Mrs. Mabelle M. Miller

Mrs. Curzelia C. Montoya

Mrs. Ophelia C. Montoya

Helen Kerr Ochsner

PWG Partnership

Mr. H. O. Pool, Trustee of

Mr. Joe Quinn

Mr. James M. Raymond

Mr. M. A. Romero

Amalia S. Sanchez

Mrs. Mercedes Candelaria Skidmore

Texas National Bank of Commerce,
Ancillary Guardian of J. L. Abercrombi

Mrs. Evelyn Ellen Wallace &
Mr. James A. Brown, Trustees under the
Last Will & Testament of A. W. Brown

FILE

El Paso NATURAL GAS COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-543-2600

October 12, 1979

SAN JUAN 27-5 UNIT PICTURED CLIFFS AND MESAVERDE
PARTICIPATING AREA WORKING INTEREST OWNERS

Re: Interzonal Communication
San Juan 27-5 Unit #67
Pictured Cliffs - Mesaverde
SW/4 of Section 31, T-27-N, R-5-W
Rio Arriba County, New Mexico

The subject well has communication between the producing zones. We have been directed by the Oil Conservation Division to take immediate action to return the well to compliance with state rules regulating dual completions.

Alternative procedures for complying with state regulations are as follows:

1. Repair leak and return well to production with zones isolated.

2. Downhole commingling of production.

We propose that application be made to the Oil Conservation Division to downhole commingle the production from the two zones and, if approved, that such procedure be performed at an estimated net cost of $10,390.00. The allocation of the cost between the working interest owners of the two zones shall be determined pursuant to the terms of the Unit Operating Agreement.

In the application for downhole commingling, we will propose that the allocation of production between the Pictured Cliffs and Mesaverde be determined as follows:

1. Determine the Pictured Cliffs production and the Mesaverde production for January and February, 1978. These are the two months prior to the last packer leakage test which indicated no communication.

2. Total the production from both zones.

3. Divide the Pictured Cliffs production by the total production to determine a Pictured Cliffs percentage.

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this _____ day of _____, 1979.

By: _____

RHN:pw
Enclosure

SAN JUAN 27-5 UNIT

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Amoco Production Company
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of Gerald P. Harrington, Deceased
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Mrs. Ophelia C. Montoya
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Catholic Church of Jarmillo

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Maxmilliamo Esquibel
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San Diego, California 92115

Mercedes Skidmore
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Port Hueneme, California 93041

SAN JUAN 27-5 UNIT
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P. O. Box 6827
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First National Bank of Santa Fe
Account of Catherine B. McElvain
Individually and as Executrix of the
Estate of T. H. McElvain
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Farmington, New Mexico 87401

Mr. J. Fidel Candelaria
c/o Mrs. Eulogia C. Candelaria
Blanco, New Mexico 87412

Mr. Orlando Candelaria
116 Ranchitos Road N.E.
Albuquerque, New Mexico 87115

Mr. Pablo Leopoldo Candelaria
Blanco, New Mexico 87412

Mrs. Curzelia C. Montoya
Blanco, New Mexico 87412

Mrs. Ophelia C. Montoya
4306 Sunningdale N.E.
Albuquerque, New Mexico 87110

Mercedes C. Skidmore
132 West Alta Green
Port Hueneme, California 93041

Central National Bank & Trust Co.
of Des Moines, Trustee under the Will
of Gerald F. Harrington, Deceased
5th and Locust Streets
Des Moines, Iowa 50309

Mary Jone Chappell
3012 Palo Alto N.E.
Albuquerque, New Mexico 87111

Mr. F. Eugene Harrington
#9 Tempe Wick Road
Mendham, New Jersey 07945

Mr. Gerald E. Harrington
P. O. Box 862
Roswell, New Mexico 88201

Mr. James V. Harrington
1017 Salamanca N.W.
Albuquerque, New Mexico 87107

Mr. T. H. Harrington
P. O. Box 4483, Station A
Albuquerque, New Mexico 87106

Mr. Thomas H. Harrington
P. O. Box 4026, Station A
Albuquerque, New Mexico 87106

Amoco Production Company (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

J. R. Abraham
5517 Willow Lane
Dallas, Texas 75230

Amoco Production Company
Attention: Mr. L. O. Speer, Jr.
501 Airport Drive
Farmington, New Mexico 87401

Lona L. Bingham
973 1/2 Agate Street
San Diego, California 92109

Brookhaven Oil Corp.
950 One Energy Square
4925 Greenville
Dallas, Texas 75206

Robert P. Earnest
944 Missouri Street
San Diego, California 92109

Charles C. Harlan, Jr.
Post Office Box 2976
San Ysidro, California 92073

Hondo Oil and Gas Co.
Post Office Box 2819
Dallas, Texas 75221

John C. Meadows
6053 Expressway
Jacksonville, Florida 32211

Helen Kerr Ochsner
915 Holladay Pt.
Linkhorn Park
Virginia Beach, Virginia 23451

Waymon Peavy
1300-211 North Ervay Building
Dallas, Texas 75201

PWG Partnership
1219 Sims Building
Albuquerque, New Mexico 87103

Union Oil Co. of California
Post Office Box 671
Midland, Texas 79701

William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 19 day of October, 1979.

By: Sam Dazzo

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 12 day of November, 1979.

By: J. Eugene Harrington

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 12 day of Oct, 1979.

By: John C. Meadows

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 8th day of November 1979.

By: Thomas A. Mayhew

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 29 day of October, 1979.

By: Robert P. Barnett

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 2 day of November, 1979.
Union Oil Co. of Cal

By: W B Ellett
11-2-79

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 19thday of October, 1979.

By: Ruth Riley Peavy

RHN:pw
Enclosure

GAS ACCOUNTING:
INVESTIGATE-REPLY IS NEEDED ☐
REPLY-DIV. SIGNATURE ☐
REPLY-SEC. SIGNATURE ☐
FOR INFORMATION ONLY ☐
PLEASE SEE _____
DATE OF REPLY _____
OK FOR FILE _____

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 23 day of October, 1979.

By: Charles A. Hardy Jr.

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 22nd day of Oct., 1979.
Central National Bank & Trust Co
Trustee U/W Gerald F. Harrington
By: Larry M. Peterson
Larry M. Peterson Trust Officer

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 24 day of October, 1979.

By: Lela L. Barkley

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 22 day of October, 1979.

By: _____

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 18 day of October, 1979.

By:

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

/s/ R. H. Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 31st day of October, 1979.

By: T. A. Hammond
Thomas A. Hammond

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 8 day of Nov., 1979.

By: N. A. Sommer

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 22nd day of October, 1979.

By: R. W. Schroeder

Amoco Prod. Co.

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

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If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 22 day of Oct, 1979.

By: [signature]
NORTHWEST PIPELINE CORPORATION

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

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This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 24 day of October, 1979.

By: Lela L. Buckley

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 29th day of
October, 1979.

THE WISER OIL COMPANY
By: _____
President

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

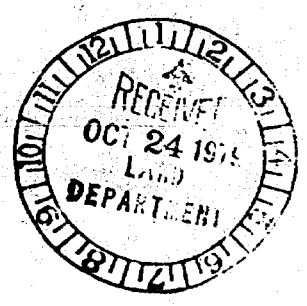
R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 22 day of
October, 1979.

By: R D Heimiller

RHN:pw
Enclosure



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This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 22nd day of Oct., 1979.
Central National Bank & Trust Co
Trustee U/W Gerald F. Harrington
By: [signature]
Larry M. Peterson Trust Officer

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

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If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 31st day of October, 1979.

By: T. H. Hamlett
Thomas H. Hamlett

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 12th day of November, 1979.

By: T. Eugene Hamilton

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 18 day of October, 1979.

By: Peggy Jane Hyatt

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 25 day of October, 1979.

By: Gerald E. Harrington

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 6th day of November, 1979.

By: Ray D. Graham
Ray D. Graham, Director Oil & Gas Division

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 1st day of November, 1979.

By: Edith H. Payne

RHN:pw
Enclosure

TO: _____
GAS ACCOUNTING:
INVESTIGATE-REPLY IF NEEDED ☐
REPLY-DIV. SIGNATURE ☐
REPLY-SEC. SIGNATURE ☐
FOR INFORMATION ONLY ☐
PLEASE SEE _____
DATE OF REPLY _____
OK FOR FILE _____

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 19th day of Oct, 1979.

By: Elmyra K. McKay
Elmyra K. McKay

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 24 day of 1979, 1979.

By: Louis R Wood

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the ____ day of _____, 1979.

By: Amalia S. Sanchez

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 14 day of Nov, 1979.

By: Linda L Bocaccio

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 8th day of November, 1979.
The First National Bank of Santa Fe,
Trustee u/w Manuel A. Sanchez
By: Charles W. Dotta
Sr. V.P. & Trust Officer

RHN:pw
Enclosure

004143

RPT # CHT — PRODUCTION DEPARTMENT — RUN DATE 79-10-17

WELL DELIVERABILITY SYSTEM

SAN JUAN DIVISION WELL PRODUCTION DATA-EPNG

4142

COUNTY NAME	ST CD	FIRST DELIV	POOL CODE	POOL - FORMATION NAME	LOC	FLO OFC	SWITCHER	WELL LOCATION U SEC TWP RGE	WELL NAME AND NUMBER	OPER CODE	METER CODE
RA	31	620418	311	BLANCO MV	03	06	33	B 31 27 5	SJ 27 5 UNIT #67 MV	2211	73-194-01

TEST-INITIAL POTENTIAL CHOKE	TEST-INITIAL POTENTIAL CAOF	TYPE LEAS	FORM CODE	EXEMPT WELL	CASING OD INCHES	TUBING OD INCHES	WELL COMP CODE	TUBING LENGTH	TYPE STIMULUS	POOL DPA %	PAY ZONE UPPER	PAY ZONE LOWER	OPERATOR NAME
3133	3362	6	07	NO	4.500	2.063	2	5299	CSWF	25	4810	5378	EL PASO NATURAL GAS CO

DATE	DAYS OPER	AVG LINE PRES PSIG	MONTH AVG Q MCF/D	MOVIN AVG Q MCF/D	MONTH TOTAL VOLUME MCF	CUMULATIVE GAS VOLUME MCF	AVG API GRA VIT	MONTHLY LIQ H/C BARRELS	CUMULATIVE LIQUID H/C BARRELS	GAS-OIL RATIO CUFT/BL		SIPC PSIA	SIPT PSIA	FLO STR	WHFP CSG PSIA	WHFP TBG PSIA	STATE Q MCF/D	LINE PRES PSIA	STATE D MCF/D	CHG DPA %
*** GAS PRODUCTION INFORMATION ***								*** CONDENSATE SALES INFORMATION ***				** DELIVERABILITY TEST INFORMATION ****								
74	342.8	289	332		113663	1806760		323	6360	351897			476	T		350	347	299	268	
75	355.9	277	328		116760	1923520		438	6798	266575										
76	358.6	240	332		119214	2042734		481	7279	247846			462	T		316	340	262	222	
77	351.5	239	324		113988	2156722		500	7778	227976	1977	TOTALS — OFF YEAR								
7801	30.9	225	314	318	9834	2166556	64.4	45	7805	218533										1
7802	26.1	236	306	311	8106	2174662	64.2	31	7836	261483										2
7803	30.4	232	265	295	8150	2182812	63.0	54	7890	150925										10
7804	28.4	236	303	290	8737	2191549	64.0	38	7928	229921										4
7805	23.8	238	294	287	7129	2198678	64.2	24	7952	297041			419	T		275	253	272	186	2
7806	30.0	250	279	292	8467	2207145	60.4	28	7980	302392										4
7807	31.0	264	231	266	7265	2214410	63.5	16	7996	454062										13
7808	30.8	288	228	246	7026	2221436	62.4	15	8011	468400										7
7809	29.8	267	241	233	7310	2228746	61.0	19	8029	384736										3
7810	26.6	266	255	241	6900	2235646	63.5	14	8043	492857										6
7811	30.1	277	215	236	6565	2242211	64.2	1	8045	6565000										9
7812	31.2	249	214	226	6786	2248997	64.2	4	8049	1696500										5
	349.1	252	264		92275			289		319290	*** 1978 TOTALS ***									
7901	31.4	256	175	201	5629	2254626	63.9	1	8050	5629000										13
7902	25.2	268	143	180	3726	2258352	.0	0	8050	0										21
7903	31.1	291	137	152	4373	2262725	.0	0	8050	0										10
7904	29.8	302	127	135	3899	2266624	60.8	0	8050	3899000										6
7905	31.1	309	126	130	4034	2270658	.0	0	8050	0										3
7906	17.2	288	145	130	2620	2273278	.0	0	8050	0										12
7907	30.9	301	168	146	5182	2278460	60.0	9	8059	575777										15
7908	31.2	307	157	159	4891	2283351	.0	0	8059	0										1
7909	30.2	308	210	178	6352	2289703	.0	0	8059	0										18
	258.1	292	157		40706			10		4070600	*** 1979 TOTALS ***									

BEFORE EXAMINER STAMM
OIL CONSERVATION DIVISION
El Paso EXHIBIT NO. 4
CASE NO. 6702
Submitted by Larry Aimes
Hearing Date 11/28/79

002097

RPT # CHT

PRODUCTION DEPARTMENT
WELL DELIVERABILITY SYSTEM
SAN JUAN DIVISION WELL PRODUCTION DATA-EPNG

RUN DATE 79-10-17
2096

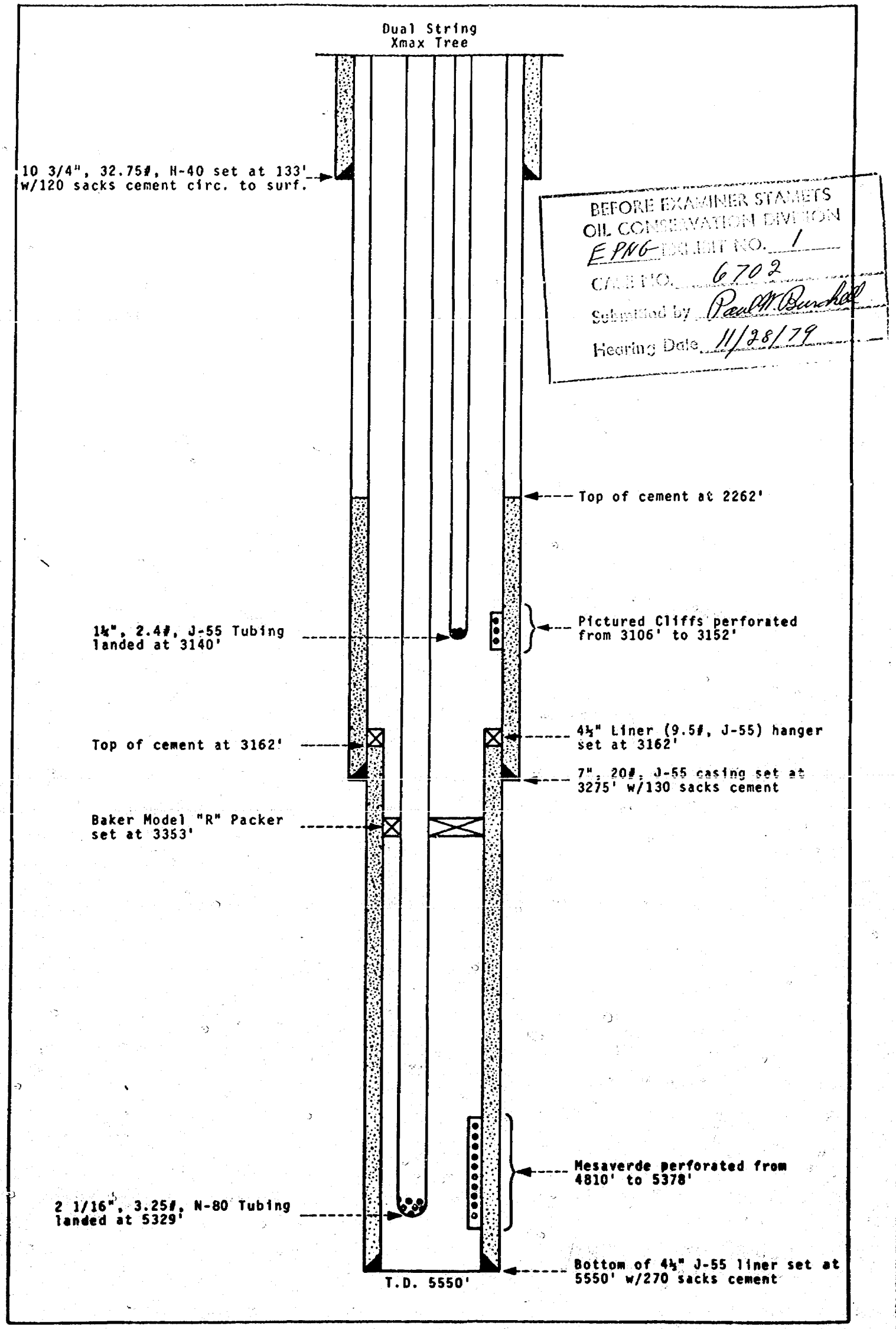
COUNTY NAME	ST CD	FIRST DELIV	POOL CODE	POOL - FORMATION NAME	LOC	FLD OFC	SWITCHER	WELL LOCATION U SEC TWP RGE	WELL NAME AND NUMBER	OPER CODE	METER CODE
RA	31	620418	303	SOUTH BLANCO P C	06	06	33	B 31 27 5	SJ 27 5 UNIT #67 PC	2212	73-193-01

TEST-INITIAL POTENTIAL CHOKE	TEST-INITIAL POTENTIAL CAOF	TYPE LEAS	FORM CODE	EXEMPT WELL	CASING OD INCHES	TUBING OD INCHES	WELL COMP CODE	TUBING LENGTH	TYPE STIMULUS	POOL DPA %	PAY ZONE UPPER	PAY ZONE LOWER	OPERATOR NAME
1204	1204	6	05	YES	7.000	1.660	1	3110	CSWF	25	3106	3152	EL PASO NATURAL GAS CO

DATE	GAS PRODUCTION INFORMATION: DAYS OPER	AVG LINE PRES PSIG	MONTH AVG Q MCF/D	MOVIN AVG Q MCF/D	MONTH TOTAL VOLUME MCF	CUMULATIVE GAS VOLUME MCF	CONDENSATE SALES INFORMATION: AVG API GRAVIT	MONTHLY LIQ H/C BARRELS	CUMULATIVE LIQUID H/C BARRELS	GAS-OIL RATIO CUFT/BL	DELIVERABILITY TEST INFORMATION: SIPC PSIA	SIPT PSIA	FLO STR	WHFP CSG PSIA	WHFP TBG PSIA	STATE LINE Q MCF/D	STATE LINE PRES PSIA	STATE LINE D MCF/D	CHG DPA %	
74	367.6	111	24		8812	171104		0	0	0										
75	353.0	86	23		8077	179181		0	0	0										
76	362.8	83	22		7830	187011		0	0	0	1976 TOTALS --EXEMPT MARGINAL									
77	354.4	77	21		7574	194585		0	0	0	1977 TOTALS --EXEMPT MARGINAL									
7801	31.0	76	19	20	594	195179	.0	0	0	0									5	
7802	28.2	72	19	20	545	195724	.0	0	0	0									5	
7803	30.3	69	20	20	618	196342	.0	0	0	0										
7804	26.5	70	31	23	823	197165	.0	0	0	0									35	*
7805	30.9	75	43	31	1314	198479	.0	0	0	0									39	*
7806	30.1	96	35	36	1042	199521	.0	0	0	0									3	
7807	30.6	106	44	41	1361	200882	.0	0	0	0									7	
7808	31.3	103	41	40	1297	202179	.0	0	0	0									3	
7809	29.6	99	36	41	1061	203240	.0	0	0	0									12	
7810	30.7	80	49	42	1516	204756	.0	0	0	0									17	
7811	30.0	85	53	46	1596	206352	.0	0	0	0									15	
7812	31.3	70	29	44	916	207268	.0	0	0	0									34	**
	360.5	83	35		12683			0		0	*** 1978 TOTALS ***									
7901	30.8	71	75	52	2307	209575	.0	0	0	0									44	*
7902	28.2	73	132	77	3722	213297	.0	0	0	0									71	*
7903	30.7	85	129	111	3962	217259	.0	0	0	0									16	
7904	29.7	94	158	140	4690	221949	.0	0	0	0									13	
7905	30.5	92	163	150	4972	226921	.0	0	0	0									9	
7906	14.2	82	190	166	2702	229623	.0	0	0	0									14	
7907	11.3	89	85	154	957	230580	.0	0	0	0									45	**
7908	31.1	112	29	81	905	231485	.0	0	0	0									64	**
7909	29.7	97	21	35	627	232112	.0	0	0	0									40	**
	236.2	88	105		24844			0		0	*** 1979 TOTALS ***									

EXHIBIT NO. 1

SCHEMATIC DIAGRAM of DUALLY-COMPLETED
El Paso Natural Gas Co. San Juan 27-5 Unit No. 67 (PM)
Unit B of Section 31, T-27-N, R-5-W
Rio Arriba County, New Mexico

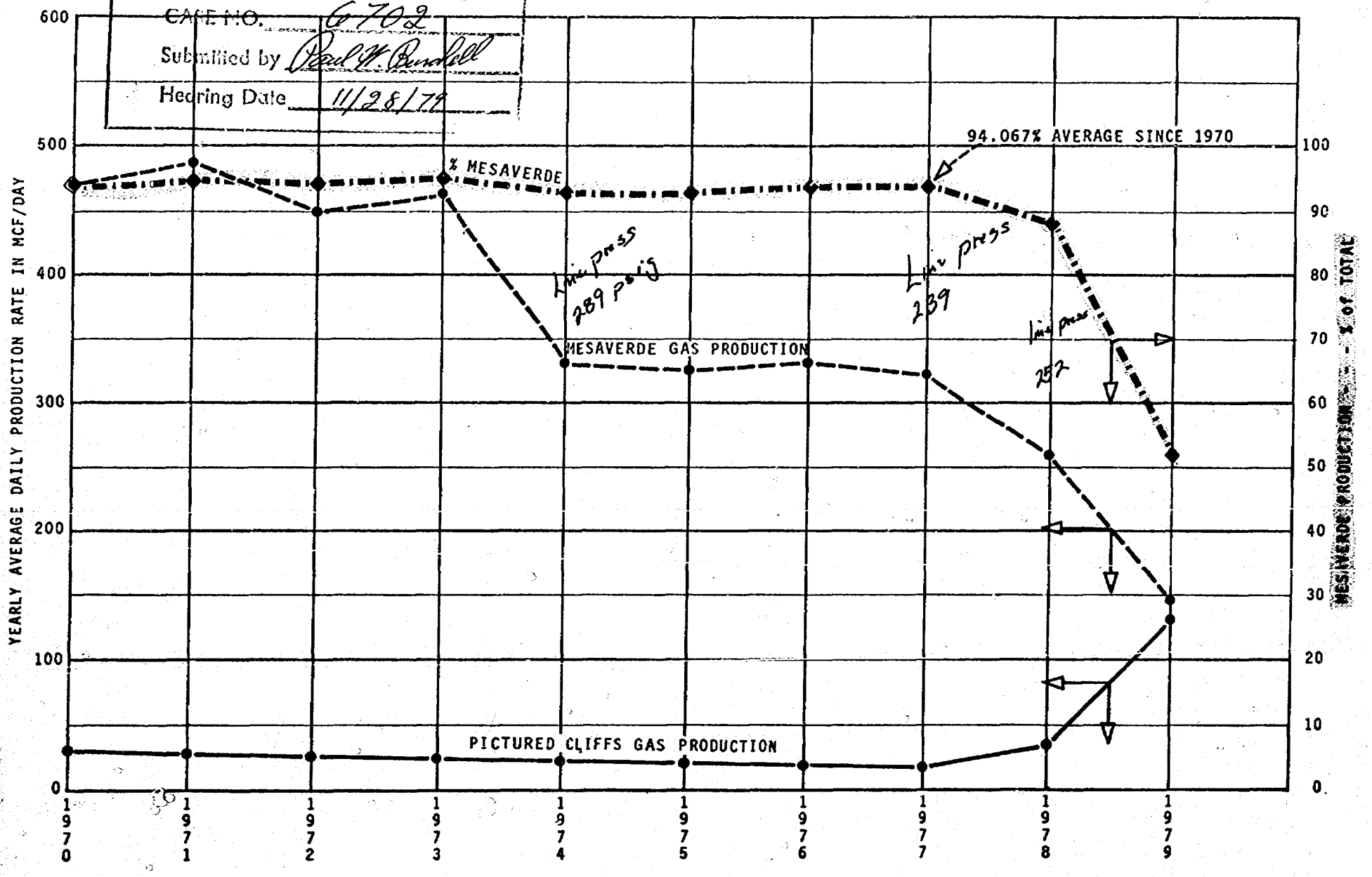


BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 1
CASE NO. 6702
Submitted by Paul W. Burchell
Hearing Date 11/28/79

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 2
CASE NO. 6702
Submitted by Paul W. Randall
Hearing Date 11/28/77

EXHIBIT NO. 2

NATURAL GAS PRODUCTION
El Paso Natural Gas Company
San Juan 27-5 Unit Well No. 67
Unit B of Section 31, T 27N - R5W
Rio Arriba County, New Mexico



El Paso NATURAL GAS COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978

PHONE: 915-543-2600

October 11, 1979

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 3
CASE NO. 6702
Submitted by Ray Nordhausen
Hearing Date 11-28-79

TO ALL ROYALTY AND OVERRIDING ROYALTY
INTEREST OWNERS IN THE SAN JUAN 27-5 UNIT

Re: Interzonal Communication
San Juan 27-5 Unit #67
Pictured Cliffs - Mesaverde
SW/4 of Section 31, T-27-N, R-5-W
Rio Arriba County, New Mexico

Application has been made to the New Mexico Oil Conservation Division for approval to downhole commingle the production from the Pictured Cliffs formation with production from the Mesaverde formation in the captioned well.

In the hearing on said application, we will propose that the production be allocated between the two formations as follows:

1. Determine the Pictured Cliffs production and the Mesaverde production for January and February, 1978. These are the two months prior to the last packer leakage test which indicated no communication.

2. Total the production from both zones.

3. Divide the Pictured Cliffs production by the total production to determine a Pictured Cliffs percentage.

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate ~~5.758%~~ 5.97 of the gas produced to the Pictured Cliffs and ~~94.242%~~ 94.03 of the gas and all of the oil produced to the Mesaverde formation.

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the ____ day of _____, 1979.

By:_____

RHN:pw
Enclosure

RN

El Paso EXPLORATION COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-543-2600

November 21, 1979

TO ALL WORKING INTEREST OWNERS, ALL
ROYALTY OWNERS AND ALL OVERRIDING
ROYALTY OWNERS SHOWN ON THE ATTACHED LIST

Re: San Juan 27-5 Unit #67
Pictured Cliffs - Mesaverde
SW/4 of Section 31, T-27-N, R-5-W
Rio Arriba County, New Mexico

Gentlemen:

As we advised you in our letters of October 11, 1979 and October 12, 1979, application has been made to the New Mexico Oil Conservation Division for approval to downhole commingle the production from the Pictured Cliffs formation with production from the Mesaverde formation in the captioned well. The application is schedule to be heard November 28, 1979.

We have not received a response from you; accordingly, we hereby give notice to each of you that you have the right to appear at said hearing to either support or oppose our application.

Should you have any questions, you may reach me at (915) 543-2653.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department

RHN:pw

LIST OF INTEREST OWNERS ATTACHED TO LETTER
DATED NOVEMBER 21, 1979

Mr. J. R. Abercrombie

J. R. Abraham

William E. Alsup, Jr. Ancilliary Executor
of the Estate of William E. Alsup, Deceased

Freddy Arnold

Richard Arnold

Stanley Arnold

Lona L. Bingham

Brookhaven Oil Corp.

Mr. Donald R. Candelaria
c/o Mrs. Eulogia C. Candelaria

Mrs. Eulogia C. Candelaria

Nickie G. Candelaria

Paul M. Candelaria

Mr. J. Fidel Candelaria
c/o Mrs. Eulogia C. Candelaria

Mr. Orlando Candelaria

Genevieve Candelaria, Personal Representative
of the Estate of Pablo Leopoldo Candelaria

Catholic Church of Jarmillo

Marie Courtney

Thomas Dugan, et ux

Jose Perfect Esquibel

Maxmilliamo Esquibel

The First National Bank of Santa Fe,
Trustee of Manuel A. Sanchez

Flag-Redfern Oil Company
United States Geological Survey

Mr. Gerald E. Harrington

Mr. Thomas H. Harrington

Col. Langdon Dewey Harrison
Trustee for Omega E. Quinn

Mrs. Catherine M. Harvey

Frieda Holt

Hondo Oil and Gas Co.

Mrs. Clara Lopez, Guardian in the
Estate of Kathryn Arnold, a Minor

Lucas Martinez
Parkview, New Mexico 87551

Mr. Ralph H. McCullough

Mr. T. H. McElvain, Jr.

T. H. McElvain Oil & Gas Prop.

Mrs. Mabelle M. Miller

Mrs. Curzelia C. Montoya

Mrs. Ophelia C. Montoya

Helen Kerr Ochsner

PWG Partnership

Mr. H. O. Pool, Trustee of

Mr. Joe Quinn

Mr. James M. Raymond

Mr. M. A. Romero

Amalia S. Sanchez

Mrs. Mercedes Candelaria Skidmore

Texas National Bank of Commerce,
Ancillary Guardian of J. L. Abercrombi

Mrs. Evelyn Ellen Wallace &
Mr. James A. Brown, Trustees under the
Last Will & Testament of A. W. Brown

FILE

EL PASO NATURAL GAS COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-543-2600

October 12, 1979

SAN JUAN 27-5 UNIT PICTURED CLIFFS AND MESAVERDE
PARTICIPATING AREA WORKING INTEREST OWNERS

Re: Interzonal Communication
San Juan 27-5 Unit #67
Pictured Cliffs - Mesaverde
SW/4 of Section 31, T-27-N, R-5-W
Rio Arriba County, New Mexico

The subject well has communication between the producing zones. We have been directed by the Oil Conservation Division to take immediate action to return the well to compliance with state rules regulating dual completions.

Alternative procedures for complying with state regulations are as follows:

1. Repair leak and return well to production with zones isolated.

2. Downhole commingling of production.

We propose that application be made to the Oil Conservation Division to downhole commingle the production from the two zones and, if approved, that such procedure be performed at an estimated net cost of $10,390.00. The allocation of the cost between the working interest owners of the two zones shall be determined pursuant to the terms of the Unit Operating Agreement.

In the application for downhole commingling, we will propose that the allocation of production between the Pictured Cliffs and Mesaverde be determined as follows:

1. Determine the Pictured Cliffs production and the Mesaverde production for January and February, 1978. These are the two months prior to the last packer leakage test which indicated no communication.

2. Total the production from both zones.

3. Divide the Pictured Cliffs production by the total production to determine a Pictured Cliffs percentage.

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this _____ day of
_____, 1979.

By:_____

RHN:pw
Enclosure

SAN JUAN 27-5 UNIT

Dorothy L. Abercrombie
Box 1229
Bellaire, Texas 77401

Mr. J. R. Abercrombie
P. O. Box 224
Bellaire, Texas 77401

William E. Alsup, Jr. Ancilliary Executor
of the Estate of William E. Alsup, Deceased
P. O. Box 422
Woodstock, Vermont 05091

Amoco Production Company (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Amoco Production Company
Attention: Mr. L. O. Speer, Jr.
501 Airport Drive
Farmington, New Mexico 87401

Mrs. Lela L. Barkley
5322 Institute Lane
Houston, Texas 77005

Mrs. Evelyn G. Brown
14 Alpine Road
Greenwich, Connecticut 06830

Mr. James A. Brown
14 Alpine Road
Greenwich, Connecticut 06830

Mr. Donald R. Candelaria
c/o Mrs. Eulogia C. Candelaria
Blanco, New Mexico 87412

Mrs. Eulogia C. Candelaria
Blanco, New Mexico 87412

Nickie G. Candelaria
Blanco, New Mexico 87412

Paul M. Candelaria
103 West 31st Street
Farmington, New Mexico 87401

Mr. J. Fidel Candelaria
c/o Mrs. Eulogia C. Candelaria
Blanco, New Mexico 87412

Mr. Orlando Candelaria
116 Ranchitos Road N.E.
Albuquerque, New Mexico 87115

Mr. Pablo Leopoldo Candelaria
Blanco, New Mexico 87412

Central National Bank & Trust Co.
of Des Moines, Trustee under the Will
of Gerald F. Harrington, Deceased
5th and Locust Streets
Des Moines, Iowa 50309

Mary Jone Chappell
3012 Palo Alto N.E.
Albuquerque, New Mexico 87111

Colorado Oil & Gas Corporation
P. O. Box 1819
Colorado Springs, Colorado 80901

Mr. Sam Dazzo & Frances Joy Dazzo
901 Val Verde S.E.
Albuquerque, New Mexico 87108

Thomas Dugan, et ux
P. O. Box 234
Farmington, New Mexico 87401

Flag-Redfern Oil Company
P. O. Box 23
Midland, Texas 79701

General American Oil Company of Texas
Attention: Mr. L. E. Dooley
Meadows Building
Dallas, Texas 75206

Mr. F. Eugene Harrington
#9 Tempe Wick Road
Mendham, New Jersey 07945

Mr. Gerald E. Harrington
P. O. Box 862
Roswell, New Mexico 88201

Mr. James V. Harrington
1017 Salamanca N.W.
Albuquerque, New Mexico 87107

Mr. T. H. Harrington
P. O. Box 4483, Station A
Albuquerque, New Mexico 87106

Mr. Thomas H. Harrington
P. O. Box 4026, Station A
Albuquerque, New Mexico 87106

Col. Langdon Dewey Harrison
Trustee for Omega E. Quinn
7311 Montgomery N.E.
Box H 190
Albuquerque, New Mexico 87109

Mrs. Catherine M. Harvey
Box 2148
Santa Fe, New Mexico 87501

Mr. Ralph H. McCullough
P. O. Box 6827
Houston, Texas 77005

Mr. T. H. McElvain, Jr.
Box 2148
Santa Fe, New Mexico 87501

T. H. McElvain Oil & Gas Prop.
Box 2148
Santa Fe, New Mexico 87501

Mrs. Mabelle M. Miller
1224 Lois Street
P. O. Box 1445
Kerrville, Texas 78028

Mrs. Curzelia C. Montoya
Blanco, New Mexico 87412

Mrs. Ophelia C. Montoya
4306 Sunningdale N.E.
Albuquerque, New Mexico 87110

Northwest Pipeline Corporation
Drilling and Production Department
3539 E. 30th
Farmington, New Mexico 87401
Attention: Mr. F. H. Wood, Manager

Northwest Production Corporation
P. O. Box 1796
El Paso, Texas 79949

PWG Partnership
1219 Sims Building
Albuquerque, New Mexico 87103

Mr. H. O. Pool, Trustee of
The H. O. Pool Trust
P. O. Box 1585
Scottsdale, Arizona 85251

Mr. Joe Quinn
1031 Longwood Loop
Mesa, Arizona 85208

Mr. James M. Raymond
P. O. Box 1445
Kerrville, Texas 78028

Mr. M. A. Romero
P. O Box 5557
Santa Fe, New Mexico 87502

Mrs. Mercedes Candelaria Skidmore
5814 S. Cherokee Cluster
Virginia Beach, Virginia 23562

Mr. Robert P. Tinnin
P. O. Box 1885
Albuquerque, New Mexico 87110

Mrs. Evelyn Ellen Wallace &
Mr. James A. Brown, Trustees under the
Last Will & Testament of A. W. Brown
14 Alpine Road
Greenwich, Connecticut 06830

The Wiser Oil Company
P. O. Box 2467
Hobbs, New Mexico 88240

SAN JUAN 27-5 UNIT
ROYALTY INTEREST OWNERS

Freddy Arnold
940 63rd
Riverside, California 92509

Richard Arnold
Box 1965
Farmington, New Mexico 87401

Stanley Arnold
Post Office Box 4544
Grand Junction, Colorado 81501

Verda L. Boccacio
Box 614
Jackson, Wyoming 83001

Marie Courtney
3201 North Kentucky
Space 7
Roswell, New Mexico 88201

Frieda Holt
11129 Wood Elves Way
Columbia, Maryland 21044

Mrs. Clara Lopez, Guardian in the
Estate of Kathryn Arnold, a Minor
Star Route Box 682
Blanco, New Mexico 87412

Iris A. Wood
Box 1115
Durango, Colorado

Catholic Church of Jarmillo

Jose Perfect Esquibel
General Delivery
Tierra Amarilla, New Mexico 87575

Maxmilliamo Esquibel
General Delivery
Tierra Amarilla, New Mexico 87575

The First National Bank of Santa Fe,
Trustee of Manuel A. Sanchez
Trust Department
Post Office Box 609
Santa Fe, New Mexico 87501

Lucas Martinez
Parkview, New Mexico 87551

Elmyra K. McKay
Post Office Box 14738
Albuquerque, New Mexico 87111

Horace F. McKay, Jr.
Post Office Box 14738
Albuquerque, New Mexico 87111

Edith H. Payne
645 Monroe N.E.
Albuquerque, New Mexico 87110

Amalia S. Sanchez
356 East Garcia Street
Santa Fe, New Mexico 87501

Donald R. Candelaria
c/o Eulogia C. Candelaria
Blanco, New Mexico 87412

Eulogia C. Candelaria
Guardian of Nickie G. Candelaria,
A Minor
Blanco, New Mexico 87412

J. Fidel Candelaria
57 Rio Vista Circle
Durango, Colorado 81301

Orlando Candelaria
Post Office Box 10362
Albuquerque, New Mexico 87184

Paul M. Candelaria
103 West 31st Street
Farmington, New Mexico 87401

Pablo L. Candelaria

Cruzelia C. Montoya
Blanco, New Mexico 87412

Ophelia C. Montoya
6205 El Cajon Blvd.
San Diego, California 92115

Mercedes Skidmore
132 West Alta Green
Port Hueneme, California 93041

SAN JUAN 27-5 UNIT
OVERRIDING ROYALTY INTEREST OWNERS

Mr. J. R. Abercrombie
P. O. Box 224
Bellaire, Texas 77401

William E. Alsup, Jr. Ancilliary Executor
of the Estate of William E. Alsup, Deceased
P. O. Box 422
Woodstock, Vermont 05091

Mrs. Lela L. Barkley
5322 Institute Lane
Houston, Texas 77005

Thomas Dugan, et ux
P. O. Box 234
Farmington, New Mexico 87401

Flag-Redfern Oil Company
P. O. Box 23
Midland, Texas 79701

Col. Langdon Dewey Harrison
Trustee for Omega E. Quinn
7311 Montgomery N.E.
Box H 190
Albuquerque, New Mexico 87109

Mrs. Catherine M. Harvey
Box 2148
Santa Fe, New Mexico 87501

Mr. Ralph H. McCullough
P. O. Box 6827
Houston, Texas 77005

Catherine B. McElvain
First National Bank of Santa Fe
Account of Catherine B. McElvain
Individually and as Executrix of the
Estate of T. H. McElvain
Santa Fe, New Mexico 87501

Mr. T. H. McElvain, Jr.
Box 2148
Santa Fe, New Mexico 87501

T. H. McElvain Oil & Gas Prop.
Box 2148
Santa Fe, New Mexico 87501

Mrs. Mabelle M. Miller
1224 Lois Street
P. O. Box 1445
Kerrville, Texas 78028

Mr. H. O. Pool, Trustee of
The H. O. Pool Trust
P. O. Box 1585
Scottsdale, Arizona 85251

Mr. Joe Quinn
1031 Longwood Loop
Mesa, Arizona 85208

Mr. James M. Raymond
P. O. Box 1445
Kerrville, Texas 78028

Mr. M. A. Romero
P. O Box 5557
Santa Fe, New Mexico 87502

Texas National Bank of Commerce,
Ancillary Guardian of J. L. Abercrombie
Post Office Box 1229
Bellaire, Texas 77401

Mr. Robert P. Tinnin
P. O. Box 1885
Albuquerque, New Mexico 87110

Mrs. Evelyn Ellen Wallace &
Mr. James A. Brown, Trustees under the
Last Will & Testament of A. W. Brown
14 Alpine Road
Greenwich, Connecticut 06830

Mr. Donald R. Candelaria
c/o Mrs. Eulogia C. Candelaria
Blanco, New Mexico 87412

Mrs. Eulogia C. Candelaria
Blanco, New Mexico 87412

Nickie G. Candelaria
Blanco, New Mexico 87412

Paul M. Candelaria
103 West 31st Street
Farmington, New Mexico 87401

Mr. J. Fidel Candelaria
c/o Mrs. Eulogia C. Candelaria
Blanco, New Mexico 87412

Mr. Orlando Candelaria
116 Ranchitos Road N.E.
Albuquerque, New Mexico 87115

Mr. Pablo Leopoldo Candelaria
Blanco, New Mexico 87412

Mrs. Curzelia C. Montoya
Blanco, New Mexico 87412

Mrs. Ophelia C. Montoya
4306 Sunningdale N.E.
Albuquerque, New Mexico 87110

Mercedes C. Skidmore
132 West Alta Green
Port Hueneme, California 93041

Central National Bank & Trust Co.
of Des Moines, Trustee under the Will
of Gerald F. Harrington, Deceased
5th and Locust Streets
Des Moines, Iowa 50309

Mary Jone Chappell
3012 Palo Alto N.E.
Albuquerque, New Mexico 87111

Mr. F. Eugene Harrington
#9 Tempe Wick Road
Mendham, New Jersey 07945

Mr. Gerald E. Harrington
P. O. Box 862
Roswell, New Mexico 88201

Mr. James V. Harrington
1017 Salamanca N.W.
Albuquerque, New Mexico 87107

Mr. T. H. Harrington
P. O. Box 4483, Station A
Albuquerque, New Mexico 87106

Mr. Thomas H. Harrington
P. O. Box 4026, Station A
Albuquerque, New Mexico 87106

Amoco Production Company (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

J. R. Abraham
5517 Willow Lane
Dallas, Texas 75230

Amoco Production Company
Attention: Mr. L. O. Speer, Jr.
501 Airport Drive
Farmington, New Mexico 87401

Lona L. Bingham
973 1/2 Agate Street
San Diego, California 92109

Brookhaven Oil Corp.
950 One Energy Square
4925 Greenville
Dallas, Texas 75206

Robert P. Earnest
944 Missouri Street
San Diego, California 92109

Charles C. Harlan, Jr.
Post Office Box 2976
San Ysidro, California 92073

Hondo Oil and Gas Co.
Post Office Box 2819
Dallas, Texas 75221

John C. Meadows
6053 Expressway
Jacksonville, Florida 32211

Helen Kerr Ochsner
915 Holladay Pt.
Linkhorn Park
Virginia Beach, Virginia 23451

Waymon Peavy
1300-211 North Ervay Building
Dallas, Texas 75201

PWG Partnership
1219 Sims Building
Albuquerque, New Mexico 87103

Union Oil Co. of California
Post Office Box 671
Midland, Texas 79701

William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 19 day of October, 1979.

By: Sam Dozzo

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 12 day of December, 1979.

By: J. Eugene Harrington

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 12 day of Oct., 1979.

By: John C. Meadows

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED the 8th day of November 1979.

By: Thomas A. Dugan

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED the 29 day of October, 1979.

By: Robert P. Ernest

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 2 day of November, 1979.
Union Oil Co. of Cal

By: W B Abbott
11-2-79

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 19thday of October, 1979.

By: Ruth Riley Peavy

RHN:pw
Enclosure

GAS ACCOUNTING:
INVESTIGATE-REPLY IF NEEDED ☐
REPLY-DIV. SIGNATURE ☐
REPLY-SEC. SIGNATURE ☐
FOR INFORMATION ☐
PLEASE SEE _____
DATE OF REPLY _____
OK FOR FILE _____

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 23 day of October, 1979.

By: _____

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 22nd day of Oct., 1979.
Central National Bank & Trust Co
Trustee U/W Gerald E. Harrington
By: Larry M. Peterson
Larry M. Peterson Trust Officer

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 24 day of October, 1979.

By: Lelar L. Barkley

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 22 day of October, 1979.

By: _____

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 18 day of October, 1979.

By:

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED the 31st day of October, 1979.

By: T. A. Hammond
Thomas A. Hammond

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

P. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 8 day of Nov., 1979.

By: N. A. Hammer

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

RH Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 22nd day of October, 1979.

By: R. W. Schroeder JJ
Amoco Prod. Co.

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

RH Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 22 day of Oct, 1979.

By: [signature]
NORTHWEST PIPELINE CORPORATION

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 24 day of October, 1979.

By: Lola L. Buckley

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 29th day of October, 1979.

THE WISER OIL COMPANY

By: _____
President

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 22 day of October, 1979.

By: R D Heimin

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 22nd day of Oct., 1979.
Central National Bank & Trust Co
Trustee u/w Gerald F. Herrington
By: [signature]
Larry M. Peterson Trust Officer

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 31st day of October, 1979.

By: T. H. Hamm Jr.
Thomas H. Hamm Jr.

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 12th day of November, 1979.

By: J. Eugene Hennigh

RHN:pw
Enclosure

4. Divide the Mesaverde production by the total production to determine a Mesaverde percentage.

5. Multiply the post-workover production volumes by these percentages to determine the volume of gas produced from each zone.

This procedure will allocate 5.758% of the gas produced to the Pictured Cliffs and 94.242% of the gas and all of the oil produced to the Mesaverde formation.

If you agree with the above proposal, please sign and return one copy of this letter and one copy of the enclosed Well Cost Estimate form to this office.

Very truly yours,

R H Nordhausen

R. H. Nordhausen
Senior Landman
Land Department
Exploration

APPROVED this 18 day of October, 1979.

By: Mary Jane Clappell

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 25 day of October, 1979.

By: Gerald E. Harrington

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 6th day of November, 1979.

By: Ray D. Graham
Ray D. Graham, Director Oil & Gas Division

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 1st day of November, 1979.

By: Edith H. Payne

RHN:pw
Enclosure

TO: _____
GAS ACCOUNTING: _____
INVESTIGATE-REPLY IF NEEDED ☐
REPLY-DIV. SIGNATURE ☐
REPLY-SEC. SIGNATURE ☐
FOR INFORMATION ONLY ☐
PLEASE SEE _____
DATE OF REPLY _____
OK FOR FILE _____

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED the 19th day of Oct, 1979.

By: Helen K. McKay
Evelyn K. McKay

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 24 day of 1979, 1979.

By: Louis A. Wood

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhauser
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the ___ day of _____, 1979.

By: Amalia S. Sandy

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 14 day of Nov, 1979.

By: Verda L Boscacci

RHN:pw
Enclosure

If the above proposal meets with your approval, please sign and return a copy of this letter.

Very truly yours,

R. H. Nordhausen
Senior Landman
Land Department
Exploration

THE ABOVE PROPOSAL IS APPROVED
the 8th day of November, 1979.
The First National Bank of Santa Fe,
Trustee U/W Manuel A. Sanchez
By: _____
Sr. V.P. & Trust officer

RHN:pw
Enclosure

MONTGOMERY, ANDREWS & HANNAHS
PROFESSIONAL ASSOCIATION
ATTORNEYS AND COUNSELORS AT LAW
325 PASEO DE PERALTA
POST OFFICE BOX 2307
SANTA FE, NEW MEXICO 87501

TELEPHONE 505-982-3873
TELECOPY 505-982-4289

November 28, 1979

New Mexico Energy and
Minerals Department
Oil Conservation Division
Land Office Building
Santa Fe, New Mexico 87503

Re: NMOCC Case No. 6702 - Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico.

Gentlemen:

Please be advised that David T. Burleson of the office of General Counsel of El Paso Natural Gas Company, El Paso, Texas, is associated with our firm for the presentation of evidence and argument in the above-captioned case.

Sincerely,

Owen M. Lopez by RB

Owen M. Lopez

OML:to

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

EXAMINER HEARING

IN THE MATTER OF:

Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico.

CASE 6702

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Applicant: No Attorney for the Applicant

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

MR. NUTTER: We'll next call Case Number 6702.

MR. PADILLA: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico.

MR. BURLESON: Mr. Examiner, we request that that case be continued to November the 28th, '79.

MR. NUTTER: Case 6702 will be continued to the Examiner Hearing scheduled to be held at this same place at 9:00 o'clock a. m., November 28th, 1979.

(Hearing concluded.)

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of the 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, from my notes taken at the time of the hearing.

Sally W. Boyd C.S.R.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6702 heard by me on 10/17 19 79.

, Examiner

Oil Conservation Division

SALLY W. BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (505) 471-2463
Santa Fe, New Mexico 87501

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

EXAMINER HEARING

IN THE MATTER OF:

Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico.

CASE 6702

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Applicant: No Attorney for the Applicant

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

MR. NUTTER: We'll next call Case Number 6702.

MR. PADILLA: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico.

MR. BURLESON: Mr. Examiner, we request that that case be continued to November the 28th, '79.

MR. NUTTER: Case 6702 will be continued to the Examiner Hearing scheduled to be held at this same place at 9:00 o'clock a. m., November 28th, 1979.

(Hearing concluded.)

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of the 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, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6702, heard by me on 10/17, 1979.

Oil Conservation Division, Examiner

SALLY W. BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-3448
Santa Fe, New Mexico 87501

Docket No. 43-79

Dockets Nos. 45-79 and 1-80 are tentatively set for December 12, 1979 and January 3, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - NOVEMBER 27, 1979

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

CASE 6609: (DE NOVO)

Application of Napeco Inc. for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Strawn oil pool for its Benson Deep Unit Well No. 1 located in Unit O of Section 33, Township 18 South, Range 30 East, and special rules therefor, including 160-acre spacing and standard well locations.

Upon application of Yates Petroleum Corporation and Napeco Inc., this case will be heard De Novo pursuant to the provisions of Rule 1220.

****

Docket No. 44-79

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 28, 1979

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

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

Notice is hereby given by the Oil Conservation Division that Giant Industries, Inc., has filed an application for a determination of eligibility to purchase state royalty oil pursuant to Secs. 19-10-64 thru 19-10-70 NMSA 1978 Comp. for its Farmington, New Mexico, refinery, which will be considered by the Commission after December 1, 1979. In the event objection, and evidence to support such objection, is received by the Commission on or before December 1, 1979, to such a determination, notice will be given and the application set for public hearing at a later date.

* * *

CASE 6702: (Continued from October 17, 1979, Examiner Hearing)

Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Pictured Cliffs and Blanco Mesaverde production in the wellbore of its San Juan 27-5 Unit Well No. 67 located in Unit B of Section 31, Township 27 North, Range 5 West.

CASE 6732: Application of Dorchester Exploration, Inc. for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Morton Solid State Unit Well No. 1 located 2156 feet from the North line and 990 feet from the West line of Section 4, Township 15 South, Range 34 East, Tres Papalotes-Pennsylvanian Pool.

CASE 6733: Application of Kelloil Inc. for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Lea Penn South Unit Area, comprising 1,440 acres, more or less, of State lands in Township 20 South, Range 35 East.

CASE 6734: Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the S/2 of Section 27, Township 18 South, Range 29 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6735: Application of Mesa Petroleum Co. for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the S/2 of Section 26, Township 18 South, Range 24 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. 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. (This case will be dismissed.)

CASE 6736: Application of Doyle Hartman for compulsory pooling and a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalmat Gas Pool to form a 360-acre non-standard gas proration unit comprising the S/2 SE/4 of Section 36, Township 24 South, Range 36 East; SW/4 of Section 31, Township 24 South, Range 37 East; and the N/2 NW/4 and NW/4 NE/4 of Section 6, Township 25 South, Range 37 East, to be dedicated to a well to be drilled 660 feet from the South line and 990 feet from the West line of said Section 31. 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 6707: (Continued from November 14, 1979, Examiner Hearing)

Application of Gulf Oil Corporation for a unit agreement, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Southeast Bisti Unit Area, comprising 7,048 acres, more or less, of State and Federal lands in Townships 24 and 25 North, Range 10 West.

CASE 6737: Application of Gulf Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 4, Township 19 South, Range 32 East, North Lusk-Morrow Gas Pool, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6739: Application of Mobil Oil Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Gavilan-Pictured Cliffs and Blanco Mesaverde production in the wellbore of its Jicarilla D Well No. 1 located in Unit N of Section 24, Township 26 North, Range 3 West. Applicant further seeks the establishment of an administrative procedure for approval of downhole commingling of the aforesaid pools in others of its wells in Sections 7, 8, 17, 18, and 19, Township 26 North, Range 2 West, Sections 1, 2, 11 thru 14, 23, and 24, Township 26 North, Range 3 West, and Sections 11 thru 15, 22 thru 27, 35, and 36, Township 27 North, Range 3 West.

CASE 6740: Application of Hondo Oil and Gas Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Pennsylvanian test well to be drilled 1550 feet from the North line and 660 feet from the West line of Section 10, Township 18 South, Range 28 East, the N/2 of said Section 10 to be dedicated to the well.

CASE 6741: Application of ARCO Oil and Gas Company for an amendment to Order No. R-6054, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-6054 to amend the findings in said order to make said findings more specific as to the necessity for the drilling of infill wells in the Empire Abo Unit in order to recover additional gas pursuant to the Natural Gas Policy Act of 1978; further to amend said order to make such findings applicable to present and future drilling operations including the drilling of horizontal drainholes.

CASE 6720: (Continued from November 14, 1979, Examiner Hearing)

Application of ARCO Oil and Gas Company to drill a horizontal drainhole, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval to drill and complete its Empire Abo Unit Well No. J-213, located in Unit E of Section 6, Township 18 South, Range 28 East, Empire-Abo Pool, with a single horizontal drainhole of about 200 feet in length in the Abo formation.

CASE 6742: Application of ARCO Oil and Gas Company for an administrative procedure, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of an administrative procedure for approval of the drilling of horizontal drainholes in the Empire Abo Unit, Empire-Abo Pool.

CASE 6743: (This case will be dismissed.)

Application of Exxon Corporation for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit disposal of produced brine in several unlined surface pits located on its Laguna Grande Unit Area in Sections 16, 21, 28, 29, 32, and 33, Township 23 South, Range 29 East.

CASE 6744: Application of Texas Oil & Gas Corporation for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Riverside-Morrow Gas Pool to provide for 320-acre spacing rather than 160 acres. In the absence of objection, this pool will be placed on the standard 320-acre spacing for Pennsylvanian gas pools rather than the present 160-acre spacing.

CASE 6745: Application of Harvey E. Yates Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Pennsylvanian formations underlying the W/2 of Section 28, Township 23 South, Range 24 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. 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 6746: Application of Yates Petroleum Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Pennsylvanian formations underlying the S/2 of Section 31, Township 18 South, Range 26 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South line and 1100 feet from the West line of said Section 31. 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 6747: Application of Yates Petroleum Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Pennsylvanian formations underlying the S/2 of Section 23, Township 18 South, Range 25 East, to be dedicated to a well to be drilled at an unorthodox location in the center of Unit P of said Section 23. 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 6748: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Rio Pecos "MR" Fed. Well No. 1, a Morrow test to be drilled 1980 feet from the South line and 1100 feet from the East line of Section 29, Township 18 South, Range 27 East, the S/2 of said Section 29 to be dedicated to the well.

CASE 6749: Application of Petro-Lewis Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Penrose Skelly, Blinebry, and Drinkard production in the wellbore of its Warlick Well No. 3 located in Unit P of Section 18, Township 21 South, Range 37 East.

CASE 6750: Application of CO_2-In-Action, Inc. for creation of a new carbon dioxide gas pool and special pool rules, Harding County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the North Bueyeros-Santa Rosa CO_2 Gas Pool comprising all or parts of Sections 1, 2, 3, 10, 11, and 12, Township 20 North, Range 30 East and Sections 20 thru 23 and 26 thru 35, Township 21 North, Range 30 East, and the promulgation of special rules therefor including a provision for 160-acre spacing units with the option to drill on 40 acres, and with well locations as close as 330 feet to the unit boundary.

CASE 6725: (Continued from November 14, 1979, Examiner Hearing)

Application of Tenneco Oil Company for three non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 291.23-acre non-standard gas proration unit comprising the W/2 of Section 6 and the NW/4 of Section 7, a 347.58-acre unit comprising the W/2 of Section 19 and the NW/4 of Section 30, and a 375.17-acre unit comprising the SW/4 of Section 30 and the W/2 of Section 31, all in Township 29 North, Range 8 West, Basin-Dakota Pool, each unit to be dedicated to a well to be drilled at a standard location thereon.

CASE 6751: Application of Tenneco Oil Company for the rescission of special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the rescission of the special pool rules for the Catclaw Draw-Morrow Gas Pool to provide for 320-acre spacing rather than 640 acres. In the absence of objection, the pool rules will be rescinded and the pool placed on standard 320-acre spacing for Pennsylvanian gas pools rather than the present 640-acre spacing.

CASE 6357: (Reopened and Readvertised)

In the matter of Case 6357 being reopened pursuant to the provisions of Order No. R-5853 which order established temporary special rules and regulations for the South Peterson-Pennsylvanian Pool, with provisions for 80-acre spacing. All interested parties may appear and show cause why the South Peterson-Pennsylvanian Pool should not be developed on 40-acre spacing units.

Docket No. 44-79

CASE 6714: (Continued and Readvertised)

Application of Jake L. Hamon for an unorthodox gas well location and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well to be drilled 660 feet from the South and West lines of Section 20, Township 20 South, Range 36 East, North Osudo-Morrow Gas Pool; applicant further seeks a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6738: Application of Harlan Drilling Company for drilling drainholes, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill and case a vertical hole to an approximate depth of 1500 at the top of the Gallup formation from a surface location 990 feet from the North line and 990 feet from the West line of Section 1, Township 30 North, Range 16 West, Verde-Gallup Oil Pool, San Juan County, and to then drill four deviated drainholes therefrom, bottoming each of said holes in the Gallup at a vertical depth of 1700 feet and approximately 200 lateral distance from the vertical hole.

Docket No. 40-79

Dockets Nos. 41-79 and 42-79 are tentatively set for October 31 and November 14, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 17, 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 November, 1979, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for November, 1979, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6693: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Pennsylvanian test well to be located 1130 feet from the South line and 1300 feet from the East line of Section 30, Township 17 South, Range 26 East, the S/2 of said Section 30 to be dedicated to the well.

CASE 6694: 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 Wolfcamp-Pennsylvanian formations underlying the S/2 of Section 35, Township 18 South, Range 25 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6695: Application of Millard Deck Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre non-standard gas proration unit comprising the NE/4 NW/4 and NW/4 NE/4 of Section 36, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at a standard location thereon.

CASE 6696: Application of R. Q. Silverthorne for an unorthodox oil well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Yates test well to be drilled 1310 feet from the South and West lines of Section 30, Township 18 South, Range 31 East, Shugart Pool.

CASE 6697: Application of Conoco Inc. for an unorthodox location and dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Wells B-1 Well No. 5 at an unorthodox Devonian location 1650 feet from the North line and 660 feet from the East line of Section 1, Township 25 South, Range 36 East, to produce gas from the Devonian and Ellenburger formations, Custer Field, thru parallel strings of tubing, the E/2 of said Section 1 to be dedicated to the well.

CASE 6671: (Continued from October 2, 1979, Examiner Hearing)

Application of Chapman and Schneider for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Seven Rivers Reef formation in the open-hole interval from 3422 feet to 3504 feet in its I. B. Ogg "A" Well No. 3 located in Unit E of Section 35, Township 24 South, Range 36 East, Jalmat Pool.

CASE 6698: Application of Stevens Oil Company for compulsory pooling, Chaves 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 SW/4 of Section 30, Township 8 South, Range 29 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6699: Application of Robert C. Anderson for two unorthodox gas well locations, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of his Ute Mountain Ute Well No. 1 located in the center of Unit L, and Well No. 3, located 2310 feet from the North and West lines, both in Section 14, Township 31 North, Range 16 West, the SW/4 of said Section 14 to be dedicated to Well No. 1 and the NW/4 to be dedicated to Well No. 3.

CASE 6680: (Continued from October 2, 1979, Examiner Hearing)

Application of Robert C. Anderson for surface commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the surface commingling of all production from his Ute Mountain Ute Lease, Wells Nos. 1, 3 and 4, located in Section 14, Township 31 North, Range 16 West.

CASE 6631: (Continued from August 22, 1979, Examiner Hearing)

Application of Reserve Oil, Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat gas and Langlie Mattix oil production in the wellbore of its Cooper Jal Unit Well No. 149-306 located in Unit J of Section 18, Township 24 South, Range 37 East.

CASE 6700: Application of Doyle Hartman for an unorthodox well location, a non-standard proration unit, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 120-acre non-standard proration unit comprising the NW/4 NW/4 and S/2 NW/4 of Section 29, Township 25 South, Range 37 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the North line and 330 feet from the West line of said Section 29; applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

CASE 6701: Application of Doyle Hartman for compulsory pooling, non-standard gas proration unit, unorthodox well location, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Seven Rivers-Queen formations underlying the SE/4 of Section 30, Township 21 South, Range 36 East, Eumont Gas Pool, to form a 160-acre non-standard gas proration unit to be dedicated to his J. K. Rector Well No. 1 at an unorthodox location 2310 feet from the South line and 330 feet from the East line of said Section 30. 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. Applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

CASE 6676: (Continued from October 2, 1979, Examiner Hearing)

Application of Doyle Hartman for an unorthodox well location and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre non-standard gas proration unit comprising the SW/4 NE/4 and SE/4 NW/4 of Section 36, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the North line and 1650 feet from the East line of said Section 36.

CASE 6664: (Continued from September 19, 1979, Examiner Hearing)

Application of Doyle Hartman for an unorthodox well location, two non-standard proration units and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 40-acre non-standard proration unit comprising the NW/4 SW/4 of Section 27, Township 25 South, Range 37 East, Jalmat Pool, to be dedicated to El Paso Natural Gas Company's Harrison Well No. 1, and also a 120-acre unit comprising the E/2 SW/4 and SW/4 SW/4 of said Section 27 to be dedicated to a well to be drilled at an unorthodox location 330 feet from the South and West lines of the section; applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing well.

CASE 6662: (Continued from September 19, 1979, Examiner Hearing)

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Jicarilla "A" Well No. 22Y located in Unit K of Section 24, Township 26 North, Range 4 West, to produce gas from the Blanco Mesaverde Pool through tubing and to commingle and produce the Wildhorse Gallup and Basin-Dakota zones through a parallel tubing string.

CASE 6702: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Pictured Cliffs and Blanco Mesaverde production in the wellbore of its San Juan 27-5 Unit Well No. 67 located in Unit B of Section 31, Township 27 North, Range 5 West.

CASE 6487: (Continued from July 25, 1979, Examiner Hearing)

Application of El Paso Natural Gas Company for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Shell E State Com Well No. 2 located in Unit N of Section 6, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6679: (Continued from October 2, 1979, Examiner Hearing)

Application of El Paso Natural Gas Company for a gas storage unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Washington Ranch Morrow Unit Area comprising the Morrow formation and the first 100 feet immediately above and below said formation underlying all or parts of Sections 21 thru 23, 26 thru 29, and 32 thru 36, Township 25 South, Range 24 East; Sections 1 thru 5 and 9 thru 14, Township 26 South, Range 24 East; and Sections 6, 7, and 18, Township 26 South, Range 25 East, Washington Ranch-Morrow Gas Pool, Eddy County, New Mexico. Said unit area would be for the purpose of conducting a gas storage project and would comprise 12,158 acres, more or less, of State, federal and fee lands.

CASE 6703: Application of El Paso Natural Gas Company for underground gas storage, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a gas storage project in the Morrow formation underlying its Washington Ranch Morrow Unit Area in Townships 25 and 26 South, Ranges 24 and 25 East, Washington Ranch-Morrow Gas Pool. Applicant further seeks the promulgation of rules governing the drilling and completion of wells going thru the Morrow formation and the first 100 feet immediately above and below said formation underlying the unit area into deeper formations, and the establishment of an administrative procedure for the consideration of exceptions to the Division's well spacing and casing and tubing requirements for its injection and withdrawal wells.

CASE 6704: Application of ARCO Oil and Gas Company for the amendment of Order No. R-6044, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Division Order No. R-6044 which authorized the drilling of a horizontal drainhole in the Empire-Abo Pool. Applicant proposes to amend the target area prescribed by said order for the drainhole.

CASE 6705: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating and extending 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 Southwest Indian Flats-Morrow Gas Pool. The discovery well is Perry R. Bass Big Eddy Unit Well No. 68 located in Unit K of Section 10, Township 22 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM
Section 10: W/2

(b) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Atoka-Morrow production and designated as the South Kemnitz Atoka-Morrow Gas Pool. The discovery well is Tenneco Oil Company Kemnitz Deep Well No. 1 located in Unit G of Section 29, Township 16 South, Range 34 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 34 EAST, NMPM
Section 29: E/2

(c) EXTEND the Anderson Ranch-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 32 EAST, NMPM
Section 3: S/2

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

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM
Section 30: S/2

(e) EXTEND the Antelope Ridge-Atoka Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 34 EAST, NMPM
Section 23: S/2

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

TOWNSHIP 18 SOUTH, RANGE 27 EAST, NMPM
Section 22: S/2
Section 23: S/2
Section 28: E/2

(g) EXTEND the Box Canyon-Permo Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 22 EAST, NMPM
Section 7: S/2
Section 18: N/2

(h) EXTEND the Bluitt-San Andres Associated Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 37 EAST, NMPM
Section 22: NE/4

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

TOWNSHIP 19 SOUTH, RANGE 24 EAST, NMPM
Section 12: W/2

(j) EXTEND the South Brunson-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM
Section 30: NE/4

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

TOWNSHIP 8 SOUTH, RANGE 30 EAST, NMPM
Section 4: NW/4

(l) EXTEND the North Cemetery-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 25 EAST, NMPM
Section 18: All

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

TOWNSHIP 8 SOUTH, RANGE 32 EAST, NMPM
Section 3: NW/4

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

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 34: E/2

(o) EXTEND the Diamond Mound-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM
Section 11: All

(p) EXTEND the Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
Section 18: SW/4

(q) EXTEND the Eagle Creek-Permo Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM
Section 36: N/2

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

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM
Section 19: N/2

(s) EXTEND the South Eunice-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM
Section 12: SW/4

(t) EXTEND the East Grama Ridge-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM
Section 35: N/2
Section 36: N/2

TOWNSHIP 22 SOUTH, RANGE 34 EAST, NMPM
Section 2: SW/4

(u) EXTEND the Imperial Tubb-Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
Section 22: SW/4

(v) EXTEND the West Indian Basin-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 22 EAST, NMPM
Section 14: W/2

(w) EXTEND the Kemnitz-Cisco Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 34 EAST, NMPM
Section 8: SE/4
Section 9: SW/4

(x) EXTEND the Langlie-Ellenburger Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM
Section 20: E/2

(y) EXTEND the Langlie Mattix Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM
Section 32: SW/4

(z) EXTEND the North Loving-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 8: S/2
Section 16: E/2

(aa) EXTEND the Penasco Draw-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM
Section 21: W/2

(bb) EXTEND the Penasco Draw-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 24 EAST, NMPM
Section 25: S/2
Section 36: All

(cc) EXTEND the Penasco Draw San Andres-Yeso Associated Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM
Section 31: SE/4

(dd) EXTEND the South Peterson-Fusselman Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM
Section 30: SE/4

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

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM
Section 31: N/2 SE/4 and S/2 NE/4

Docket No. 40-79

(ff) EXTEND the Red Lake-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM
Section 31: W/2

(gg) EXTEND the Shugart-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM
Section 27: W/2
Section 33: E/2
Section 34: W/2 and SE/4
Section 35: All

(hh) EXTEND the North Teague-Devonian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
Section 21: NE/4

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

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 31: SW/4

(jj) EXTEND the Travis-Upper Pennsylvanian Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM
Section 13: N/2 S/2

El Paso NATURAL GAS COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978

PHONE: 915-543-2600

October 5, 1979

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Commingling Request
EPNG- San Juan 27-5 Unit Well #67
Rio Arriba County, New Mexico
C. D. No. 6702

Gentlemen:

El Paso Natural Gas Company respectfully requests that the above referenced hearing be postponed from October 17, 1979, to November 28, 1979.

Thank you for your consideration in this matter, and I hope this change does not cause you any inconvenience.

Very truly yours,

E. R. Manning

E. R. Manning

ERM:mep
cc: D. E. Adams
David T. Burleson
D. N. Canfield
W. D. Dawson
John F. Eichelmann, Jr.
Carl E. Matthews
NMOCD-District 3
L. G. Truby
U. S. G. S.
George Lippman

El Paso NATURAL GAS COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-543-2600

August 21, 1979

Case 6702

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Commingling Request
EPNG - San Juan 27-5 Unit
Well No. 67

Gentlemen:

El Paso Natural Gas Company respectfully request a hearing be set before the Commission or its designated examiner on October 17, 1979.

El Paso seeks approval to downhole commingle production from the Blanco-Mesaverde Gas Pool with production from the South Blanco-Pictured Cliffs Gas Pool in its San Juan 27-5 Unit No. 67 Well. This well is located in Unit B of Section 31, T27N-R5W, Rio Arriba County, New Mexico.

Very truly yours,

E. R. Manning

E. R. Manning

ERM:lp
cc: Messrs: D. E. Adams
David T. Burleson
D. N. Canfield
John F. Eichelmann, Jr.
Carl E. Matthews
NMOCD - District 3
L. G. Truby
U.S.G.S.
George Lippman

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. 6702

Order No. R-6235

APPLICATION OF EL PASO NATURAL GAS COMPANY

FOR DOWNHOLE COMMINGLING, RIO ARRIBA

COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 28, 19 79, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

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

FINDS:

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

(2) That the applicant, El Paso Natural Gas Company, is the owner and operator of the San Juan 27-5 Unit Well No. 67, located in Unit B of Section 31, Township 27 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle South Blanco-Pictured Cliffs and Blanco Mesaverde production within the wellbore of the above-described well.

(4) That from the South Blanco-Pictured / Cliffs zone, the subject well is capable of low marginal production only.

(5) That from the Blanco Mesaverde zone, the subject well is capable of low marginal production only.

(6) That the bottom-hole pressure in the Mesaverde zone is approximately three times that of the Pictured Cliffs zone.

(7) That the Division has previously found that when bottom hole pressures of zones to be commingled differ by a factor greater than two, potentially damaging cross flow between zones could occur if the well should be shut in.

(8) That there is no mechanism to assure the Division that said San Juan 27-5 Unit Well No 67 would not be shut-in following completion of the proposed downhole commingling.

(9) That to avoid the potential for waste the subject application should be denied.

IT IS THEREFORE ORDERED:

(1) That the ~~applicant~~ application of El Paso Natural Gas Company, ~~is~~ ~~hereby authorized~~ is hereby denied, to commingle South Blanco-Pictured Cliffs and Blanco Mesaverde production within the wellbore of the San Juan 27-5 Unit Well No. 67, located in Unit B of Section 31, Township 27 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

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

(ALTERNATE)

(2) That _____ percent of the commingled _____ production shall be allocated to the South Blanco-Pictured Cliffs zone and _____ percent of the commingled _____ production shall be allocated to the Blanco Mesaverde zone.

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

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

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