## STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT 1 OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. 2 SANTA FE, NEW MEXICO 3 8 January 1986 COMMISSION HEARING 5 6 7 IN THE MATTER OF: 8 Application of Rio Pecos Corporation CASE for enforcement of the Common Pur-8796 9 chaser Requirements of Section 70-2-19 NMSA, 1978 (1984 Supplement) and other 10 pertinent provisions of the Oil and Gas Act, Eddy County, New Mexico. 11 12 13 BEFORE: Richard L. Stamets, Chairman 14 Ed Kelley, Commissioner 15 16 TRANSCRIPT OF HEARING 17 18 APPEARANCES 19 For the Division: Jeff Taylor Attorney at Law 20 Legal Counsel to the Commission State Land Office Bldg. 21 Santa Fe, New Mexico 87501 22 For the Applicant: W. Thomas Kellahin Attorney at Law 23 KELLAHIN & KELLAHIN P. O. Box 2265 24 Santa Fe, New Mexico 87501 25 For El Paso Natural W. Perry Pearce Gas Co.: Gary Kilpatric Attorneys at Law

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Santa Fe, New Mexico 87501

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21				
22				
23				
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MR. STAMETS: We'll call next

3 | Case 8796.

MR. TAYLOR: The application of Rio Pecos Corporation for enforcement of the Common Purchaser Requirements of Section 70-2-19 NMSA, 1978, and other pertinent provisions of the Oil and Gas Act, Eddy County, New Mexico.

MR. STAMETS: I'll call for appearances in this case.

MR. KELLAHIN: If the Commission please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf of Rio Pecos Corporation.

MR. PEARCE: May it please the Chairman, I am W. Perry Pearce of the Santa Fe law firm of Montgomery and Andrews, appearing on behalf of El Paso Natural Gas Company in this case.

Also appearing with me today are Mr. Gary R. Kilpatric also of Montgomery and Andrews law firm, and Mr. Thomas Jensen, one of the corporate attorneys for El Paso Natural Gas Company.

MR. STAMETS: Any other appearances at this time?

Mr. Kellahin?

MR. KELLAHIN: Mr. Chairman, on

behalf of my client I would like to undertake a discussion with the Commission on establishing a procedure for the administration of this case. We believe it will be a case of first impression before the Commission. It is my recollection that this is the first case of its type in which an actual hearing may take place before the Commission.

My client is seeking the enforcement of the Common Purchaser Requirements of the New Mexico statute.

The pipeline purchaser, or the common purchaser that we believe is responsible and to which a ratable take order should be directed, is El Paso Natural Gas Company.

I anticipate, and I have learned from Mr. Pearce, that he proposes to file a motion that includess a motion to dismiss this application on certain jurisdictional grounds. I've not seen his motion or brief. I am aware that that is an issue in this case.

In addition, the Commission, I'm sure, is aware that ratable take cases have been decided by regulatory commissions in other states, and often those decisions involve issue far beyond the simple question of the jurisdiction over an interstate pipeline.

Our own statute has a number of factors or elements of proof within it. Mr. Pearce and I

have not discussed the elements, as to what contention he has or any opposition to the certain elements.

We would suggest as a way to proceed and handle this case, would be to give the applicant an opportunity to make a presentation on what we contend are uncontroverted factual information from which we can establish a prima facie case for the Commission to take jurisdiction of this matter.

We would propose that that witness provide certain technical data concerning the geology
and the engineering of the two wells in this small Morrow
reservoir, one of which is being produced, and the other
one, which is shut in.

We would recommend and suggest that following that presentation, that we would have an opportunity to discuss with opposing counsel and the Commission elements that you would want us to brief so that at the subsequent hearing of this matter in February, which is the next Commission case, I believe, the 26th of February, that both sides would be fully prepared and have had an adequate opportunity to meet and discuss the issues that we all agree are essential.

At this point we filed our application and we do come forward with some of our evidence, but we are not prepared today to meet and to discuss opposi

tion on all possible issues because we don't know what those issues are that El Paso has objections to.

MR. PEARCE: May it please the Commission, the position of El Paso Natural Gas, I think, aligns fairly closely with Mr. Kellahin's. We believe there are some very serious jurisdictional questions, which we believe are right for a motion to dismiss, since our position is that this Commission does not have the jurisdiction to enter the order which is requested.

However, as Mr. Kellahin points out, it is an extremely complicated matter. There are a number of other items which we suspect may need to be discussed, or which can be discussed profitably. We think it may be very helpful to have some presentation of information by Rio Pecos and we would appreciate that and at the conclusion of that we will be happy to engage in the sort of discussion Mr. Kellahin just outlined, and a discussion of some scheduling of presentation of memoranda, or other documents, to the other parties to this matter.

We believe that that's appropriate and we'd like to proceed at this time with the Commission's permission.

MR. STAMETS: Sounds like an excellent idea.

Mr. Kellahin, when you are pre

```
8
   pared, you may proceed.
1
                                 MR.
                                       KELLAHIN:
                                                  Thank you.
2
   Chairman, I'd like to call at this time Mr. Mark Wilson, who
3
   is the President of Rio Pecos Corporation.
                                 MR.
                                      STAMETS:
                                                  We'll have Mr.
5
   Wilson be sworn, please.
6
7
                          (Witness sworn.)
8
9
                                 MR.
                                      STAMETS:
                                                  You may proceed
10
   when ready, Mr. Kellahin.
11
                                 MR.
                                       KELLAHIN:
                                                   Thank you, Mr.
12
   Chairman.
13
14
                            MARK WILSON,
15
   being called as a witness and being duly sworn upon
16
                                                              his
17
   oath, testified as follows, to-wit:
18
                         DIRECT EXAMINATION
19
   BY MR. KELLAHIN:
20
            Q
                        For the record, Mr.
                                              Wilson, would you
21
   please state your name and occupation?
22
            Α
                       Mark Wilson, petroleum geologist.
23
                      Mr. Wilson, what is your relationship with
24
   the applicant, Rio Pecos Corporation?
25
```

President. 1 Α 0 Mr. Wilson, have you previously testified 2 before the Oil Conservation Commission of New Mexico and had 3 your qualifications as a geologist accepted and made a matter of record? 5 Α I have. 6 7 Q Pursuant to the application of your company in Case 8796, have you made a review of the geology and 8 9 of certain basic engineering principles and calculations with regards to the two wells that produce from this Morrow 10 11 well -- Morrow pool? I have done so myself. 12 13 0 Are you familiar with and is it the cus-14 tom and practice of you in practicing your profession to in-15 clude in reviewing information certain engineering calcula-16 tions with regards to original oil in place or original gas 17 in place, and the producing characteristics of those wells? 18 Yes. I'd probably use a simplified ap-19 proach to that but I think it's probably accurate enough for 20 what we're after here. 21 All right, sir. 22 MR. KELLAHIN: We tender Mr. 23 Wilson as an expert petroleum geologist. 24 MR. PEARCE: No objection, Mr. 25 Chairman; however, I do not expect that Mr. Wilson will

broach any petroleum engineering facets about which we would have to question his expert qualification; however, we would reserve waiving objection to engineering testimony until we hear it.

MR. STAMETS: We will qualify Mr. Wilson as an expert in petroleum geology.

MR. WILSON: Very good.

Q Mr. Wilson, let me direct you to what I have marked as Exhibit Number Eleven and have you identify the ownership plat and orient the Commission as to the two wells involved in the pool and the spacing or proration units dedicated to each well.

A This is the -- Exhibit Eleven, which is the last in the stack of exhibits.

This is a plat in the Little Box Canyon Morrow Field area, a land plat, and that field is located in 21 South, 22 East, Sections 7 and 18.

We will be speaking principally of two wells, and the first well in this particular reservoir, which we're going to call the Mescal Channel Sand reservoir, was the Yates Mescal "SE" Federal No. 1, and it is located in Section 18 of 21 South, 22 East, in the northeast quarter of the northwest quarter.

The other well, which is the well that we have our interest in, is the Yates Little Box Canyon Unit

```
No. 5, and it's shown with a red star there in the southeast
   of the southwest of Section 7.
2
3
                       The spacing units which are dedicated to
   these wells are outlined in red.
                       Do you have, Mr. Wilson, any interest in
5
   the Yates-operated Mescal Well in the north half of 18?
6
            Α
                       We have none.
                                           Rio Pecos has none
7
    (inaudible).
8
9
            0
                       Let me direct your attention to Exhibit
   Number One, have you identify the structure map for me.
10
                       Okay.
                             Exhibit One is a structure map on
11
   top of the M-3 Oolitic Limestone.
12
                        Is this an exhibit that you prepared di-
            0
13
   rectly or that was prepared under your direction and super-
14
   vision?
15
16
            Α
                       I made it myself.
17
                       All right, sir.
            Q
18
            Α
                               Colored areas are two
                        Okay.
                                                         channel
19
   sandstones at about the same stratigraphic position in the
20
   Lower Morrow.
21
                        Gas-bearing portions are colored red;
22
   water-bearing portions are colored an orange-ochre color.
23
                       Gas-water
                                   contacts
                                                    shown
                                                            with
                                              are
24
   hachured lines separating these two colors.
25
                       Gas wells in these sands are colored dark
```

1 2

R

red; and the light blue color signifies a well that was water-bearing in the sand.

Channel sandstone thicknesses are shown in half-boxes above or near the well sites.

The western channel is 13 to 18 feet thick, lying west of the 150-foot Little Box Canyon Fault and can be dismissed because it is depleted.

The Mescal Channel Sandstone, named for Yates Mescal "SE" Federal No. 1, the discovery well, in Section 18 of 21 South, 22 East, is 43 to 58 feet thick with a northwest trend established by four penetrations.

Cities Service found the sand water-bearing in two wells in Section 17, 21 South, 22 East, drilled in 1973 and 1976.

Yates Petroleum completed the Mescal "SE" Federal 1 in Section 18 on 2-3-82 from perforations 8129-34 for a calculated absolute open flow of 5317 thousand cubic feet of gas per day.

The sand is 58 feet thick and has a gas/water contact at 8148, which is -3715, with 30 feet above the contact and 28 feet below the contact.

First gas sales to El Paso Natural Gas, the only pipeline in this remote area, were about December 22nd, 1982.

The fourth and latest well to be com-

pleted in the Mescal Channel Sandstone is the Yates Little

Box Canyon Unit No. 5, located 800 feet from the south line

and 1600 feet from the west line, Section 7, 21 South, 22

East. The sand is 56 feet thick. It is 66 feet high to the

Mescal well and entirely gas-bearing.

This well was completed on 3-7-84 for 5950 thousand cubic feet of gas on a 3 hour and 30 minute test on a 1/2-inch choke with 930 pounds of flowing tubing pressure from perforations 8069 to 8131.

Rio Pecos Corporation and the Wilson family have about a 20 percent -- 28 percent interest in this well after payout, and 20 percent interest before payout.

As shown on this map, the trap in the Mescal Sandstone is associated with the closure on the upside of the Little Box Canyon Fault.

Careful note should be taken of the fact that the Mescal "SE" Federal 1 and the Little Box Canyon Unit No. 5 are on adjoining 40-acre tracts. These wells are labeled on this exhibit.

Further note that the large numbers above various well sites correspond with numbers above wells on the regional stratigraphic cross section comprising Exhibit Three.

Q Mr. Welson, let me direct your attention now to Exhibit Number Two.

1 Did you prepare Exhibit Number Two, Wilson? 2 3 Α I did it myself. 0 Would you indicate what the Exhibit Number Two is? 5 Exhibit 6 Α Two is a correlation diagram 7 whose main purpose is to show correlations within the 8 Pennsylvanian Morrow series adn the Mississippian Chester Series between Yates Mescal "SE" Federal No. 1 and the Yates 10 Little Box Canyon Unit No. 5, which wells are located on ad-11 joining forties in the Little Box Canyon Field. These wells were labeled on Exhibit One. 12 13 The two logs on the left are on the Mes-14 cal "SE" Federal No. 1 and the two logs on the right are on the Little Box Canyon Unit No. 5. 15 The outer two logs 16 dual laterolog-Micro SFL logs, and the two inner logs 17 compensated neutron density logs. Correlations are empha-18 sized with colors. 19 This correlation diagram is hung on 20 of a persistent oolitic limestone here colored pink. This 21 limestone unit is overlain by a radioactive black 22 colored dark gray. 23 pink limestone is immediately under-24 lain by the Mescal Channel Sandstone colored orange-ochre. 25 Separattion between the neutron and density curves is shown in red. Note the pronounced gas effect in the Little Box Cayon Unit No. 5 throughout the sand.

Also note the diminished gas effect in the lower part of the Mescal sand in the Mesal "SE" Federal. This diminished gas effect correlates with a substantial drop in resistivity in the Mescal "SE" Federal due to a gaswater contact at -3715, shown on this diagram.

Note also that the top of the Mescal sandstone is at -3618 in the Little Box Canyon Unit No. 5 compared with 3684 -- -3684 in the Mescal "SE" Federal 1. The Little Box Canyon Unit 5 is 66 feet higher and therefore entirely within the gas column.

Below the Mescal Sandstone are four Lower Morrow sandstone units, which are easily correlated, and the Chester Austin and Dunken cycles are also readily correlated. Both wells penetrated the upper part of the main Mississippian Limestone.

The M-3 Oolite, Oolitic Limestone, the top of which is the structural datum of Exhibit One, is colored lavender and it's labeled.

Above it is another thin limestone unit colored light blue, which in turn is overlain by the uppermost Morrow sandstone colored light green. This sandstone was produced to depletion in the Cities Service well in the southeast quarter of Section 7, 21 South, 22 East.

1 The top of the Morrow Series is at 2 base of a massive limestone throughout the Box Canyon area. Mr. Wilson, what do you conclude from a 3 0 4 comparison of the logs in terms of the correlation of these 5 various intervals? In conclusion, the logs through the Mor-7 row and Chester on these two wells are so very, very similar that there can be no doubt about the correlation of the Mes-8 cal Channel Sandstone between the two wells. 10 would be expected, the reservoir As is 11 entirely gas-bearing in the Little Box Canyon Unit No. since it is 66 feet higher than the Mescal "SE" Federal with 12 13 its gas/water contact. 14 As a geologist, Mr. Wilson, can you for-15 mulate an expert opinion with regards to whether 16 these two wells are in the same common source of supply? 17 Α think on a geological basis they are 18 assuredly in the same channel sand reservoir and 19 think that later evidence will further prove this, and then 20 we'll be going to some pressure history and production his-21 tory, which will further substantiate it. 22 Let's turn to Exhibit Three now. 0 Sir. 23 would you identify Exhibit Number Three? 24 Α Yes. Before I do, I'd like to point out

should have Exhibit Four handy here as an index map

25

the cross section.

The cross section line is on there and above each one of these well sites there is a number which will correspond to a number on Exhibit Four.

Q Did you prepare both Exhibits Three and Four, Mr. Wilson?

A Yes, I did.

Q All right, sir. Would you identify for us now Exhibit Number Three?

A Okay, Exhibit Three is a regional stratigraphic cross section, showing the Morrow and Chester Series in the Box Canyon area and environs. Nearly all the wells in the general area are on this cross section, whose line and numbers are shown on Exhibit Four.

The main purpose is to show that the thick Mescal Channel Sandstone occurs only in the four wells already discussed and shown on Exhibit One.

Secondarily, this cross section further demonstrates one, the validity of the M-3 Oolitic Limestone as a structural datum; and two, the equally widespread consistency of the pink limestone of the Lower Morrow, the datum for this cross section.

To save time the pink limestone was not colored.

Well No. 11 on this cross section is the

Yates Mescal "SE" Federal No. 1, previously shown on Exhibit TWo, the correlation diagram.

The Mescal Sandstone is again shown in the orange-ochre color. Note that this thick channel sandstone also occurs in Wells 12 and 13, and notice where they are on Exhibit Four. Those wells are in Section 17, 21 South, 22 East, southeast of the Mescal Well.

Note further that this thick channel sandstone occurs in no other wells on this cross section. Thus, as shown on Exhibit One the trend of the Mescal Sandstone is northwest from the two wells in Section 17, 21 South, 22 East, through the Yates Mescal "SE" Federal No. 1 and the Yates Little Box Canyon Unit No. 5.

Of incidental interest is the thin, orange-ochre channel sandstone at the stratigraphic level of the top of the Mescal Channel Sandstone and present in Wells 7, 8, 9, and 10. This sandstone is on the down side of the Little Box Canyon Fault and has been depleted.

Before leaving this exhibit, please note the top -- the position of the top of the M-3 Oolitic Limestone of the Upper Morrow and the top of the Chester Austin Cycle, an erosional surface.

Further note the change in interval thickness between these two markers and expecially the pronounced erosion of the Chester in the Morrow alluvial valley

where the Mescal "SE" Federal No. 1 Well, Well No. 11, is located.

Q Let me direct your attention, Mr. Wilson, to Exhibit Number Four and have you identify this exhibit.

A Okay. Exhibit Four is an Isopach map of the interval from the M-3 Oolitic limestone marker to the erosional top of the Chester Austin shale and it shows where the Morrow thickens radically in the Box Cayon Alluvial Valley, and its northern branch, the North Indian Basin Alluvial Valley.

This thickening takes place mainly by the erosion of the Chester Shale, with later filling of the valleys by mainly Morrow alluvial deposits.

The Mescal Channel Sandstone, shown in orange-ochre, trends down the North Indian Basin Alluvial Valley. The trend of the Mescal Channel Sandstone conforms with the trend of the valley in which it was deposited.

In conclusion, the commonality (sic) of the Mescal Channel Sandstone Reservoir in the yates Mescal "SE" Federal No. 1 and the Yates Little Box Canyon Unit No. 5 on adjoining 40-acre tracts has been conclusively shown.

One, by direct detailed correlation on Exhibit Two.

Two, by establishing the distribution and trend of the Mescal Channel Sandstone on the cross sections

```
1
   comprising Exhibit Three in conjunction with Exhibit Two.
                       Three, by the conformance of the trend of
2
   the alluvial valley with the trend of the channel sandstone
3
   itself, as shown on Exhibit Four.
                       I will now present the available bottom
5
6
   hole pressure data in further support of this conclusion.
7
                       Let me ask you, Mr. Wilson, who the oper-
   ator is of the two wells we've discussed in this Morrow
   channel, the Little Box Canyon No. 5 and the Mescal Well?
   Who is the operator?
10
            Α
                       The operator is Yates Petroleum Corpora-
11
   tion.
12
                        Have you contacted that operator and ob-
13
14
   tained from the operator the available data concerning the
   bottom hole pressures for either one of those wells?
15
16
            Α
                       Yes.
17
                       On the Mescal "SE" Federal No. 1, is that
            0
18
   set forth as Exhibit Number Five?
19
                       That is correct.
            A
20
            0
                       All right, sir.
21
                       No, I'm sorry, that is not correct.
            Α
22
                       That bottom hole pressure obtained on the
23
   Mescal "SE" Federal No. 1 was by personal communication.
24
   do not have an exhibit to show you (inaudible).
25
                       Let's turn to Exhibit Number Five, then,
```

21 and have you identify the source of this information. 1 Okay. Exhibit Five is a bottom hole 2 Α pressure measurement made on the Little Indian Basin Unit 3 5 shortly after it was completed. The date on this is 5 3-09-84 and after the well was shut in for 48 hours. Where is this well on the Isopach, Exhi-7 bit Number Four? Α It's in Section 7, Township 21 South, 9 Range 22 East, and it would be in the southeast of the southwest quarter. 10 MR. PEARCE: Pardon me for in-11 12 terrupting. I believe the witness 13 misspoke 14 and called this well the Little Indian --Oh, excuse me, I did. I have a habit of 15 Α 16 doing that because I happen to be working on that deal, too. 17 This is the Little Box Canyon Unit. 18 MR. PEARCE: Thank you, sir. 19 STAMETS: This is the Lit-MR. 20 tle Box Canyon Well No. 5? This is the well that's in ques-21 tion in this case today. 22 Yes. Sorry if I mislead you here. 23 This is the well in which Rio Pecos 0 24 that's operated -- the well is operated by interest

25

Yates.

```
1
                       That's correct.
            Α
                       All right, and from the operator you have
2
            Q
   obtained this bottom hole pressure survey.
3
                       Yes, I obtained it from a Yates engineer.
            Α
                       Would you direct us to the portion of the
5
            0
   bottom hole survey test that you believe give us the appro-
6
7
           information from which we may understand the rest of
   priate
   the testimony?
8
9
             Α
                        Okay.
                                The maximum reservoir pressure,
10
   this is on page 3, is 2498.8 pounds, about -- well, nearly
11
   2500 pounds,
                  and that was after the well had been shut-in
12
   45.822 hours.
                        You're referring to the last entry
13
14
   page 3 of the exhibit?
15
                       That is correct.
             Α
16
                       All right, sir.
             0
17
                               The pressure that I obtained from
             Α
                       Okay.
18
   Yates was the original reservoir pressure before any produc-
19
    tion from the Mescal Well and that pressure was measured on
20
    2-4-82 and that pressure was 2743 pounds.
                                                 Now that's
21
   comparison to this pressure here, which was measured on 3-9-
22
    84 after the Mescal Well had produced a considerable amount
23
    of gas. The pressure here was 2498.8.
24
                                 MR.
                                      STAMETS:
                                                 Excuse me, what
```

was the original bottom hole pressure?

25

```
1
                       Okay, it was 2743, measured on
                                                         2-4-82,
   and that well was completed --
2
                                 MR.
                                      STAMETS:
                                                 I'm sorry, I've
                             I've only got two wells and that's
4
   got too many exhibits.
5
   probably one too many.
6
                                 The
                                      2743 was the original
7
   which well?
                        That's on the Yates Mescal "SE" Federal
             Α
8
    1; the gas measured on 2-4-82, with the well having been
9
10
    completed on 2-3-82.
11
                       All right, sir, you've given us the orig-
    inal bottom hole pressure on the Mescal Well.
12
13
                       Do you have a bottom hole pressure on the
14
   Little Box Canyon No. 5 Well?
15
             Α
                       Yes, that's Exhibit Five here, Mr. Kella-
16
   hin.
17
                       That is -- the object of this, of course,
18
    is to show that there's been 244.2 pounds difference between
19
    what the initial reservoir pressure was and what the pres-
20
    sure was when we tested it in the Little Box Canyon Unit No.
21
    5.
22
                       And we suppose that the difference is due
23
    to the fact that the Mescal "SE" has been producing.
24
                       As a matter of fact, between 2-4-82, when
25
    the well was completed, to when we completed our well (inau-
```

```
24
1
   dible) 3-9-84, there had been 815,380,000 gas produced
   of the Mescal "SE".
                       All right. To make sure I'm straight on
   the numbers here --
5
            Α
                       Okay.
6
                        -- Mr.
                                Wilson, we have the Mescal Well
            0
7
   had original bottom hole pressure of 2743 psi.
                       Correct.
            Α
                        When the Little Box Canyon No.
                                                         5 Well,
10
   the well that you have the interest in, is completed,
11
   highest reservoir pressure tested in that well was a bottom
   hole pressure of what number?
12
13
            Α
                       2498.8 pounds.
14
                      The difference, then, is the 244.2 pounds.
            0
15
                       That's correct.
            Α
16
                       All right.
17
                       The gas produced from the Mescal "SE" was
18
   815,380,000.
19
             Q
                       Has the Little Box Canyon No. 5 Well ever
20
   been produced?
21
             Α
                       Never.
22
                            all the production thus
                        So
                                                        far.
23
    815,000 number is the reported number of production from the
24
   Mescal Well.
25
                       That is correct.
```

All right. Now let's turn to Exhibit 0 1 Number Six.

2

3

7

10

11

12

13

14

15

16

17

18

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21

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24

25

Exhibit Six is the second bottom Α Okay. hole pressure measured at 8030 feet in the Little Box Canyon this one on October 2nd, 1984, after this well Unit No. 5; had been shut in for 208 days.

That pressure was 2399 pounds, 100 pounds less than the 2498.8 pounds measured on 3-9-84 in the same well.

Thus continued depletion of the reservoir pressure is indicated by the Mescal "SE" Federal No. 1 since the Little Box Canyon Unit No. 5 has never been produced.

During this interval between the two bottom hole pressure measurements, that is between 3-9-84 to 10-2-84, 286,403,000 cubic feet of gas was produced from the Mescal "SE" Federal No. 1.

In examining the geology, Mr. Wilson, do 0 you see any other Mescal Channel Sandstone well in this vicinity to which the decline in the measured bottom hole pressure in the Little Box Canyon No. 5 Well could be attributed to other than the Mescal well?

> Absolutely not. Α

Mr. Wilson, I'd like to now direct your 0 attention to the production history on the Mescal Well, which we've marked as Exhibit Number Seven.

A Okay. It's simply production by month.

(Not clearly understood.)

Q What is the source of the information that's placed on this exhibit?

A New Mexico Oil and Gas Engineering Committee Monthly Reports.

Q All right, sir, would you direct our attention to what the production numbers have indicated as reported to the Commission from the Mescal Well?

A I'm going to use this principally to arrive at reserves calculations, but I also want to point out a couple of things that are shown in this table here.

Exhibit Seven is a tabulation of the production history of the Mescal "SE" Federal No. 1 through November, 1985. To this point this well has produced 1,688,735,000 cubic feet of gas, 3352 barrels of condensate, and 30,483 barrels of water.

In its most recent month, full month of production here, which is September, 1985, it produced 63,279,000 gas and produced 5190 barrels of water.

The water has increased substantially as in January of 1985, also shown on this form, it produced 63,254,000 gas, and only 2179 barrels of water.

Going back further to January 1st, 1984, the year before that, the well produced 71,594,000 gas and

only 336 barrels of water.

This tabulation of production will be used in conjunction with the pressure data to estimate reserves and drainage.

Q Let me direct your attention now, Mr. Wilson, to Exhibit Number Eight, and before you discuss or explain the exhibit, I'd like to ask you some additional questions.

A Okay.

Q Does Exhibit Number Eight represent a simple volumetric calculation of the original oil in place that you attribute to this channel sand in the Mescal Channel Sandstone?

A Not really volumetric. It represents a straight line method of equating gas production from this pool by the pressure of the reservoir and then if you know the original reservoir pressures (not clearly understood) to calculate the fairly accurate figures of amount of gas in place.

Q Before you describe the exhibit, would you describe the formula that you utilized to make this calculation?

A Okay. As an example, we can see there that cumulative production up to the time they measured this first bottom hole pressure on the Little Box Canyon Unit No.

1 5, which was 3-9-84, here it says cumulative to 3-9-84, okay, was 815,380,000 cubic feet of gas.

During the period of time in which that gas was produced there was a 244 pound drop in pressure, as we previously pointed out.

Okay. The risk before any production whatever out of the reservoir, the bottom hole pressure was 2743 pounds. Okay. If we could produce 815,380,000 with a decline of 244 pounds reservoir pressure, then we take the original bottom hole pressure and divide by 244 pounds and multiply it times the production figure, it will give us, you know, a pretty good figure of the gas in place.

I did ask an engineer about this and he said, I don't seen anything wrong with your calculation.

Q Let me ask you, sir, on behalf of your company, as President of Rio Pecos, do you make a similar calculation for yourself and for your company when you make an estimate of the reserves in place and reserves that you could recover on other gas wells that you hold interest in?

A Very, very often.

Q All right, sir, would you identify for us now Exhibit Number Eight?

A Okay. Exhibit Eight presents a calculation of initial gas in place, total ultimate recoverable gas reserves, and recoverable gas as of 12-1-85, form the Mescal

Channel Sandstone Reservoir.

Based upon the 3-9-84 bottom hole pressure measurement, there was 9,166,341,000 cubic feet of gas initially in place and assuming a 200 pound abandonment pressure, 8,497,997,000 ultimate recoverable gas.

Now that pressure I don't consider our most accurate data. I consider our most accurate data to be the pressure we got on 10-2-84 after the well had been shut in for 208 days. Seems like it ought to be an accurate pressure after that amount of time.

Based upon the 10-2-84 bottom hole pressure, after the well had been shut in 208 days, there was 8,744,205,000 cubic feet of gas initially in place and 8,106,640,000 ultimate recoverable gas.

Thus, since production entirely from the Mescal "SE" Federal No. 1 to 12-1-85 was 1,658,735,000, remaining recoverable reserves on that date would be 6,447,905,000 cubic feet of gas.

Q Based upon your study of the geology and your calculation of the recoverable gas, what is your concern, Mr. Wilson, with regards to your interests in the Little Box Canyon No. 5 Well in relation to the effect the Mescal Well is having on your share of the producable or recoverable gas reserves?

A Well, to put it very simply, since we

completed our well back on 3-7-84, which is close to two years now, we haven't produced anything, and whereas the Mescal Well has been on production since, as near as we can calculate the 22nd of December of 1982, we have been drained by the Mescal Well since the time that we could have gotten over on the line to be produced under the Common Purchaser Act.

And our well was completed 3-7-84, I don't think it would have taken us over about two weeks to finish the job out there to get in a position to produce.

Q Sir, let's turn to Exhibit Number Nine at this point and just identify for the record what it is.

A Exhibit Nine is simply a completion report, submitted for documentation, on the Mescal "SE" Federal No. 1, showing its completion date, which is 2-3-82.

It shows what the well potentialed for and various other data here (not clearly understood.)

O And Exhibit Number Ten.

A Exhibit Ten is a completion report on the Yates Little Box Canyon Unit No. 5, showing a completion date of 3-7-84.

The Mescal "SE" Federal No. 1 was connected to El Paso's pipeline on 10-19-82, but hte monthly production reports of the New Mexico Oil and Gas Engineering Committee shows the first gas production in January, 1983.

It shows 24 days production, which made 21,892,000; however, this same report shows 16 barrels of condensate production in December '82, and a cumulative production at the end of '83 is shown as 678,112,000, although only 669,400,000 was produced in '83.

It is therefore assumed that 8,712,000 gas was produced in December, '82, and using the January daily rate, that well started producing on approximately December 22nd of '82.

Q Can you take Exhibit Number Eleven, now, Mr. Wilson, which is the plat of the ownership of the proration unit, and use that as a guide to orient us as to the general locations of any existing pipelines in the area, first of all, by identifying the closest available inter- or intra- state pipeline.

A Well, unfortunately, this small map here is not going to be big enough for me to do justice to that, but allow me to say that probably the nearest pipeline would be over in the Indian Basin Field, which is about six and a quarter miles; the nearest well to the field is about six and a quarter miles, which is due east of us, and that's Natural Gas Pipeline, and the other pipeline that's anywhere near is the Northern Natural Gas, which comes into the Gardner Draw Field, which is a little over twelve miles north/northwest of where we are here in Little Box Canyon.

1 Within the Little Box Canyon area --Q MR. STAMETS: What was 2 the 3 second pipeline? Α Northern Natural Gas. It's got another 5 name now, I suppose. MR. STAMETS: And that was 6 7 twelve and a half miles west? Α Correct; north/northwest, in the Gardner 8 Draw Field. 9 Within the Little Box Canyon area and the 10 0 Mescal what is the pipeline that is taking gas 11 area, the pool? 12 El Paso Natural Gas. 13 14 MR. KELLAHIN: Mr. Chairman, at this time I propose to interrupt Mr. Wilson's direct testi-15 16 mony. 17 It was my desire when we star-18 ted the case to give you an outline of the basic facts that 19 we would propose to give you a prima facie basis to consider 20 the case further. 21 We have additional questions of 22 Mr. Wilson, plus other witnesses that we would present, but 23 I would like to interrupt his testimony at this time and un-24 dertake the discussion of the issues that we might 25 upon that need study, and then to reschedule the hearing for

1 a later date so that we might all be fully prepared. We will bring Mr. Wilson back, 2 subject to any cross examination and El Paso, and 3 anyone have a complete and full opportunity to ask Mr. else, will Wilson any questions they desire. 5 6 7 CROSS EXAMINATION 8 9 BY MR. STAMETS: Q Before we do that I'd like to ask, Mr. 10 Wilson, if you or any other party interested in this well 11 has made an effort to get a pipeline connection for the well? 12 Α Yeah, there have been attempts to get a 13 connection. 14 What pipelines did you contact, or have 15 16 been contacted? Well, I haven't, being a geologist 17 Α haven't contacted any of these pipelines but I can put you 18 in touch with someone who probably has. 19 20 I'm really not prepared to testify on all 21 the contacts that were made or the negotiations with a 22 pipeline. 23 But Rio Pecos would be able to supply 0 that information. 24

I think that's correct.

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MR. STAMETS: Mr. Pearce, I'd

2 | like to have your comments at this point.

MR. PEARCE: We have no objection to the procedure suggested by Mr. Kellahin, Mr. Chairman.

I would like to express for the record we appreciate Mr. Wilson's willingness to come forward at this time and provide us with this information.

MR. KELLAHIN: One of our later exhibits, Mr. Chairman, which I'll be happy to submit now, is simply a chronology of our efforts and attempts to sell gas from this well to El Paso Natural Gas, if that was the question.

If you're asking us what other effort we made to sell this gas to other pipelines, or another purchaser, I'm not prepared to give you a complete list at this point. That would be the subject of the February hearing, perhaps.

MR. STAMETS: Okay.

MR. PEARCE: Excuse me, Mr. Chairman, if the Commission would like to review that information at this time, we'll be happy to agree subject to check with the information on that exhibit. If Mr. Kellahin is proposing to introduce it at this time, we'd like to reserve the ability to object to the introduction of that ex-

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   hibit, but if you believe that information would be helpful,
   we'll be happy to review that before the next hearing and
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   state our objection, if we have any, at that time.
                                 MR.
                                      STAMETS:
                                                 The other thing
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   I'd like to know, Mr.
                           Pearce, is if you would have any ob-
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   jection to the evidence which Mr. Wilson has testified to at
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   this point.
                   I would not like for him to have to show up
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   next time and have you start up by saying he should have
   used an engineer to present this.
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                       And then also to ask Mr. Kellahin if it's
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   their intention to have a petroleum engineer at the next
   hearing.
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                                      KELLAHIN: Yeah, I do.
                                 MR.
                                                              Is
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   the first question mine?
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                                 MR.
                                      PEARCE:
                                                You answer yours
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   and then I'll answer.
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                                 MR.
                                      KELLAHIN:
                                                  Mr.
                                                       Chairman,
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   that's one of our concerns. We have not yet been advised by
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   El Paso whether or not there will be any object to the qual-
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   ity, quantity, and the pressure, engineering questions in
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   the case.
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                                     we're to focus on that is-
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If there is to be an objection

sue, obviously, we'll have to retain and bring a petroleum

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engineer.

about the calculation of what we think is a reasonable estimate of the recoverable gas, we're going to have to bring an engineer.

We need to know if those are to be issues.

MR. PEARCE: Mr. Chairman, at this time I would not expect that to be issues at the next hearing. As you're aware, we have not done any more verification of numbers, particularly the 2743, than the Commission has. We assume that that is correct.

In addition, we have not at this point consulted a petroleum engineer and given him an opportunity to review these calculations to see if he would do them different.

I would not anticipate coming to the next hearing and moving to strike anything which Mr. Wilson has said to this point in the record.

quently indicates to us that he believes there is a more accurate and substantially different method of calculating, for instance, reserves, I suspect we will present that to you; however, I will certainly be glad to represent to the Commission and Mr. Kellahin that if we discover that prior to the next hearing, we will give Mr. Kellahin sufficient advance notice to allow him to prepare a petroleum engineer

to discuss the issue.

I don't think we're going to do

it but I cannot represent for the record at this point, Mr.

Chairman, that we will not discuss it.

MR. STAMETS: Mr. Pearce, my understanding is that El Paso would at some point submit a request for dismissal of this case on certain grounds, and I presume it's possible that that could, that motion could be submitted in written form between now and February the 26th, so that that would not have to occupy all of our time at the hearing on the 26th, is that correct?

MR. PEARCE: I would certainly believe, Mr. Chairman, that that would be much more effi-

I'm not sure that either Mr. Kellahin or I would at this point in time request that it be submitted solely on written memoranda to the Commission.

We're lawyers, we probably like to talk more than we should, and we might very well request an opportunity to argue the motion and the response and any reply to that from the Commission; however, I anticipate that we would agree today over some issues that can be briefed prior to the next hearing and those briefs could be considered by the Commission prior to that time.

MR. STAMETS: All right. I

1 would then expect that at least two weeks before the next hearing, that any briefs or motions that you know you intend 2 3 to make be furnished to the Commission with at least two copies of each. MR. Could we go off 5 PEARCE: 6 the record for a moment? 7 MR. It's all right KELLAHIN: 8 with me. 9 MR. STAMETS: Let me finish. 10 MR. KELLAHIN: Yes, sir. 11 MR. STAMETS: And that also, the attorneys in this case consult with the Chairman of the 12 13 Commission so that he might be aware of the way that you in-14 tend to proceed and I would also ask that unnecessary legal 15 argument be severely limited. I know that we're dealing 16 with some complex issues here; nevertheless, I'd like to 17 keep it limited to the greatest degree possible. 18 And now we can go off the re-19 cord. 20 MR. PEARCE: Stay on for a 21 moment, if we may, Mr. Chairman. 22 MR. STAMETS: Okay. 23 MR. PEARCE: I would like 24 state for the record, Mr. Chairman, that both opposing coun-

sel and I have expressed to the Commission the complexity of

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the issues involved. From the simple fact that we're talking this way, I think that both Mr. Kellahin and I suspect
that if this matter continues, it will proceed through several layers of review.

I appreciate the Commission's desire to have these matters kept as simple and straightforward as possible, but I do feel the need on the record to warn this Commission that that will not be as possible as you would like it to be.

In addition, in our discussions previously, Mr. Kellahin has indicated to me that he would appreciate an opportunity to respond to what ever submittal we would make, and by the same token, El Paso Natural Gas Company would appreciate the opportunity to respond or reply to what Mr. Kellahin has to say.

I'd like to suggest that we take a few moments off the record to discuss issues which we can simultaneously brief and simultaneously respond to, so that nobody feels cheated in the process.

That, unless Mr. Kellahin wants to comment or anything from the Commission, I'd suggest we go off the record and have a discussion.

MR. STAMETS: Good. We will go off the record and have that discussion.

MR. PEARCE: Thank you, Mr.

Chairman.

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(Thereupon a discussion was had off the record.)

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MR. STAMETS: We'll go on the

6 record, Sally.

MR. KELLAHIN: Mr. Chairman, as part of our prima facie case I submit to you what is marked identification as Rio Pecos Exhibit Number for Twelve this case, which is multiple pages, the first page of which is a chronology of attempts to sell gas to El Paso, and attached to that is a January 11th, 1985 letter from Rio Pecos to El Paso; a February 15th, '85 letter from El Paso to Rio Pecos; June 7th '85 letter from Yates to Basin Energy; September 24th letter from Rio Pecos to El Paso; and then finally a December 5th, 1985 letter from El Paso to Lorenz and Croach (sic).

We simply submit this for identification at this point and reserve the right at the subsequent hearing to lay the appropriate evidentiary foundation for the admission of this testimony, as well as additional efforts that have been made with regards to the sale of gas.

MR. PEARCE: Mr. Chairman, we would request that we be allowed to reserve objection to

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41 this exhibit. 2 MR. STAMETS: Have any of the 3 exhibits been introduced into evidence at this point? MR. KELLAHIN: No, sir, not at this time. 5 6 MR. STAMETS: Is that 7 everybody's preference at this point? 8 MR. KELLAHIN: I think so. 9 MR. STAMETS: Okay, and 10 presume that there are no questions of Mr. Wilson today. 11 MR. KELLAHIN: That's right, sir. 12 13 MR. Does anyone have STAMETS: 14 anything that they wish to offer into the record today? 15 Being nothing else, we will 16 continue this case to the February 26th Commission Hearing. 17 If there is nothing further, 18 this hearing is adjourned. 19 20 (Hearing concluded.) 21 22 23 24 25

## CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) 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.

Saeyle, Boyd CSR