

CASE 7118: EL PASO EXPLORATION COMPANY *my*
FOR DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO

CASE NO.

7/18

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.



BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

February 13, 1981

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

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

Re: CASE NO. 7118
ORDER NO. R-6570

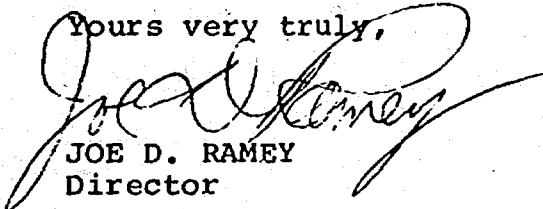
Applicant:

~~El Paso Exploration 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

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

CASE NO. 7118
Order No. R-6570

APPLICATION OF EL PASO EXPLORATION
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 January 14, 1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 10th day of February, 1981, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, El Paso Exploration Company, is the owner and operator of the Jicarilla 152 W Well No. 3, located in Unit D of Section 7, Township 26 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle South Blanco-Tocito and Basin-Dakota production within the wellbore of the above-described well.

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

(5) That from the Basin-Dakota zone, the subject well is capable of low rates of production only.

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

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Case No. 7118
Order No. R-6570

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

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

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 21 percent and 31 percent of the commingled oil and gas production, respectively, should be allocated to the South Blanco-Tocito zone, and 79 percent and 69 percent of the commingled oil and gas production, respectively, to the Basin-Dakota zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, El Paso Exploration Company, is hereby authorized to commingle South Blanco-Tocito and Basin-Dakota production within the wellbore of the Jicarilla 152 W Well No. 3, located in Unit D of Section 7, Township 26 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

(2) That 21 percent and 31 percent of the commingled oil and gas production, respectively, shall be allocated to the South Blanco-Tocito zone and 79 percent and 69 percent of the commingled oil and gas production, respectively, shall be allocated to the Basin-Dakota 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.

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Case No. 7118
Order No. R-6570

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY,
Director

S E A L

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
14 January 1981

EXAMINER HEARING

IN THE MATTER OF:

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

CASE
7118

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 to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

David T. Burleson, Esq.
EL PASO EXPLORATION COMPANY
El Paso, Texas

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I N D E X

PAUL W. BURCHELL

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1
2 MR. STAMETS: We'll call next Case 7118.

3 MR. PADILLA: Application of El Paso
4 Exploration Company for downhole commingling, Rio Arriba
5 County, New Mexico.

6 MR. BURLESON: David T. Burleson in asso-
7 ciation with Montgomery and Andrews, for applicant, El Paso
8 Exploration Company.

9 We will have one witness.

10 MR. STAMETS: I'd like to have him stand
11 and be sworn at this time, please.

12
13 (Witness sworn.)

14
15 PAUL W. BURCHELL
16 being called as a witness and being duly sworn upon his oath,
17 testified as follows, to-wit:

18
19 DIRECT EXAMINATION

20 BY MR. BURLESON:

21 Q Would you please state your name and
22 where you reside for the record, please?

23 A My name is Paul W. Burchell, and I re-
24 side in El Paso, Texas.

25 Q By whom are you employed and in what

1 capacity?

2
3 A. I'm employed by El Paso Natural Gas Com-
4 pany as a Chief Proration Engineer.

5 Q As a proration engineer have you pre-
6 viously testified before the Division or one of its examiners?

7 A. Yes, I have.

8 Q Were your qualifications accepted at that
9 time?

10 A. Yes, they were.

11 Q Are you familiar with El Paso Exploration
12 Company's application in this case?

13 A. Yes, I am.

14 MR. BURLESON: Are the witness' qualifi-
15 cations acceptable?

16 MR. STAMETS: They are.

17 Q Mr. Burchell, who is the operator of the
18 well that is the subject of this case?

19 A. The El Paso Exploration Company is the
20 operator, and I am representing them in this matter.

21 Q What is El Paso seeking in this case?

22 A. We are seeking permission to downhole
23 commingle production of the South Blanco-Tocito Oil Pool with
24 gas of the Basin Dakota Gas Pool and produce this gas through
25 one meter in the Jicarilla 152-W No. 3 Well. This well is

1
2 located in Unit D of Section 7, Township 26 North, Range 5
3 West, Rio Arriba County, New Mexico.

4 This well presently produces from both
5 these formations as a dual completion. El Paso proposes that
6 the allocation of gas and liquids to each formation be divided
7 in a manner which will be explained later on in my testimony.

8 Q Has it been heretofore determined that
9 a problem exists with respect to the equipment installed in
10 this well?

11 A Yes, sir. A leak has been determined to
12 exist. The 1980 annual packer leakage test indicated commun-
13 ication between the Dakota and the Tocito formations in the
14 dually completed well.

15 Q Have you determined where the leak exists?

16 A No, sir. A temperature survey was im-
17 practical to run because of the configuration of the tubings
18 down in the hole.

19 Q Why is El Paso seeking commingling in
20 this case rather than repair of the equipment?

21 A Okay. The downhole commingling is con-
22 sidered by El Paso the most conservative and efficient method
23 to undertake. This is especially due to the low productivity
24 of both zones.

25 We further believe this method would

1
2 permit economical operation of the well for a greater period
3 of time, thereby resulting in the prevention of waste which
4 would result from any premature abandonment of either zone.

5 Q. Have you prepared or caused to be pre-
6 pared an exhibit indicating the equipment presently in the
7 hole?

8 A. Yes, sir, I have.

9 Q. Would you please explain that exhibit,
10 please?

11 A. The Exhibit Number One is a diagrammatic
12 sketch of the equipment, which has been marked as El Paso Ex-
13 ploration Company's Exhibit Number One.

14 There is a Baker Model "D" retainer
15 production packer set at 7385 feet. The Tocito is perforated
16 above the packer from 6911 feet to 6924 feet. The Dakota
17 formation is perforated below the packer from 7391 feet to
18 7642 feet.

19 The exhibits shows that the Dakota form-
20 ation produces in somewhat of a -- in a somewhat restricted
21 manner through a string of 1-1/4 inch tubing, and this tubing
22 is set at 6899 feet.

23 With the aid of a piston the Tocito
24 formation produces through the 2-3/8ths inch tubing, which
25 is set at 7384 feet. The Dakota gas starts in the 2-3/8ths

1
2 inch tubing below the packer and enters the 1-1/4 inch tubing
3 by way of a dual string crossover anchor. There is a blanking
4 plug in the 2-3/8ths inch tubing above the crossover and its
5 purpose is to isolate the Tocito from the Dakota flow.

6 Q Have you prepared or caused to be pre-
7 pared an exhibit indicating the production history of this
8 well?

9 A Yes, sir.

10 Q Would that be Exhibit Number Two?

11 A Yes, sir.

12 Q Would you please explain what that ex-
13 hibit indicates?

14 A El Paso Exploration Company's Exhibit
15 marked Number Two shows the Dakota and the Tocito formations'
16 gas production, it's performance since 1970. The figures on
17 the left and righthand side of the graph are data plotted --
18 the gas production plotted in YAO, which is our definition
19 for yearly daily average Mcf of gas per day. The time is on
20 the bottom of the graph and the solid black line plotted on
21 the top of the graph represents the Basin Dakota, and the
22 dashed line on the bottom half of the graph represents the
23 production, the yearly daily production from the Tocito.

24 As can be observed from the exhibit,
25 both formations were declining under normal conditions until

1
2 the year 1980, when an apparent leak occurred. A packer
3 leakage test was taken at the end of August, 1980, and it
4 showed leaking was taking place.

5 Now, the Dakota has varied between 70 to
6 80 percent of the well's total gas production from 1970 to
7 1979, with the average for these years closer to 70 percent.
8 Then in 1980 the Dakota dropped to 55 percent.

9 Now, just prior to the years of 1979 and
10 1980, the Dakota was averaging 87 Mcf of gas per day and the
11 Tocito was averaging 41 Mcf of gas per day. This is a com-
12 bined total of 128 Mcf of gas per day. This amounts to 68
13 percent of the well's production coming from the Dakota during
14 1978.

15 Q Would you characterize the production
16 as very small, the combined production from this well?

17 A Yes, I would, in my opinion. The flow
18 rates for both the Tocito and the Dakota are small. I might
19 mention the prorated Basin Dakota side of the well is clas-
20 sified as marginal.

21 Q Do you have any information regarding
22 pressure and fluid characteristics of the two zones producing
23 in this well?

24 A Yes, sir. During 1978 the Tocito aver-
25 aged 2-1/2 barrels of water per month and the Dakota made

1
2 9-1/2 barrels of water per month. The Tocito averaged 4 1/2
3 barrels of oil per month and the Dakota made 17-1/4 barrels
4 of oil per month. The Dakota accounted for 79 percent of the
5 liquid hydrocarbons.

6 Now, with respect to the pressures, based
7 on the extrapolation of state tests, the Tocito side of the
8 well had a shut-in tubing pressure of 525 pounds per square
9 inch absolute, and this is as of July the 1st, 1980. The
10 corresponding bottom hole pressure is estimated to be 714
11 pounds per square inch absolute. Also, based on the extrapo-
12 lation of state tests, the Dakota shut-in tubing pressure was
13 860 psia with a corresponding bottom hole pressure estimated
14 at 1167 pounds per square inch absolute.

15 Q Now the production information with re-
16 spect to oil and water was for the year 1978.

17 A Yes, sir.

18 Q Was that the last year of which you could
19 be relatively certain that the production was not commingled?

20 A Yes, sir. All the years prior to 1979
21 and including 1979, the packer leakage tests were all positive,
22 and it wasn't until 1980 that we saw the -- and noted that
23 we had a problem. There is every possibility that back in
24 1979 shortly after the test was taken, that the well could
25 have started developing problems, and that's why I'm basing

1
2 all my liquid and gas production figures at this time prior
3 to the 1979 positive test.

4 Q Do you believe that these fluid and pres-
5 sure characteristics would be compatible should commingling
6 be approved in this case?

7 A Yes, sir, because of the small amount of
8 pressure differential and liquids, I would not expect any
9 migration of gas or liquids from one formation to the other,
10 particularly if the well is not shut-in for an extended period
11 of time. And I might point out that the bottom --- that the
12 ratio of the bottom hole pressures is 1.6-to-1.

13 Q What advantage would there be in com-
14 mingling these two zones, Mr. Burchell?

15 A The tubing configuration, as shown on
16 Exhibit Number One, was originally done to permit the Tocito
17 and Basin to be pumped, if necessary. This has not taken
18 place as we originally expected, and unfortunately, this un-
19 usual tubing arrangement prevents the Dakota formation from
20 unloading in a satisfactory manner.

21 From a production viewpoint it would be
22 best to simplify the tubing configuration and commingling of
23 the formations would result in the most simple tubing arrange-
24 ment.

25 To commingle El Paso proposed to remove

1
2 the 1-1/4 inch tubing, the permanent packer, and also the
3 2-3/8ths inch tubing string, and then check the 2-3/8ths inch
4 out and repair any worn tubing that we might find, and then
5 rerun a single 2-3/8ths inch tubing string.

6 This would have the advantage of the
7 Tocito and the Dakota gas both helping to lift the liquids
8 in the hole.

9 It is also believed that by commingling
10 the small amount of gas, which should amount to about 150 Mcf
11 of gas per day total, that neither formation would have to
12 be prematurely abandoned. It is estimated that as of July
13 the 1st, 1980, the Tocito has around 453 MMCF of gas of re-
14 maining reserves, and the Dakota had around 994 MMCF of gas
15 of remaining reserves, and their reserves can be recovered
16 through commingling.

17 Q Has El Paso in a previous proceeding
18 sought and obtained permission to commingle two zones for a
19 well in the general area that we're speaking of here?

20 A Yes, sir. Several years ago we came
21 before the Division and requested commingling in the Jicarilla
22 119-N Well No. 4, and it's located in Section 6 of Township
23 26 North, Range 4 West. It's about five miles due east of
24 this well.

25 And in that particular case it was almost

1
2 similar to this one here with regard to the peculiar tubing
3 configuration in the well, and we had leaking taking place
4 and we requested to run a single string of tubing and commingle
5 the zones, and both --- in that case it was the Mesaverde and
6 Dakota.

7 And in about 1977 we initiated the work
8 on the well. This was after the Division issued an order,
9 and I believe it was R-5174, and prior to the commingling the
10 well was producing from both formations at a combined rate
11 of 4336 Mcf of gas per month, and after the commingling work
12 was completed the well produced almost double, 7805 Mcf of
13 gas per month. And this well that I'm referring to, as of
14 1980, is still producing the higher volume of gas, which is
15 around 7830 Mcf of gas per month, so it worked very satis-
16 factorily in that particular case.

17 Q. And that most recent data that you had
18 was for the month of September, 1980, is that correct?

19 A. Yes, sir.

20 Q. Concerning the cost of the commingling,
21 or affecting the changes required to commingle, what do we
22 estimate to be the cost of this?

23 A. If we are allowed to commingle?

24 Q. Yes.

25 A. The total cost of re-entering the well

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will amount to about \$31,000.

3

Q

And there would be no appreciable, if any, cost savings in commingling in this case, is that correct?

5

A

No, whether we enter the well to repair or whether we enter the well to commingle, in either case it's going to cost about the same.

8

Q

What you're saying is that our motivation for doing it in this case is because you feel that this is the most efficient and effective way to do it and will result in the greatest ultimate production, --

12

A

Yes, sir.

13

Q

-- is that correct?

14

A

Yes, sir. Yes, sir.

15

MR. BURLESON: I might mention that the

16

order number where this previous commingling was permitted

17

was, as Mr. Burchell has indicated, Order No. R-5174. The

18

case number was 5621.

19

Q

If Commission approval is -- if Division approval is granted, do you propose a formula for the allocation of gas and liquids to the two individual zones?

22

A

Yes, and I would base my recommendation on my prior testimony, which was related to the Dakota's average daily production of gas of 68 percent of the well's total gas production, and I would also relate it to my prior

23

24

25

1
2 testimony with respect to the remaining reserves of the Dakota,
3 which was 994 MMCF, and which amounted to 98.7 percent of the
4 well's total remaining reserves.

5 MR. STAMETS: Excuse me, Mr. Burchell.

6 A. Yes.

7 MR. STAMETS: You didn't say 98 percent --
8 you did say 98 percent; certainly that's not what you meant.

9 A. No, sir, I'm sorry, did I say 98 percent?
10 I meant 68.7 percent for remaining reserves in the Dakota
11 and 68 percent was the total amount of Dakota gas production
12 during 1978.

13 With regard to the liquid hydrocarbon
14 production, I would recommend that 79 percent of the liquid
15 production in the well be attributed to the Dakota formation,
16 so with respect to all these figures it is recommended that
17 68 percent of the well's gas and 79 percent of the well's
18 liquid production be attributed to the Basin Dakota Pool, and
19 32 percent of the gas and 11 percent of the liquids would be
20 attributed to the South Blanco-Tocito Pool.

21 Q. Okay. Would you please describe the
22 ownership in this well with regard to the two individual zones
23 that are the subject of this hearing?

24 A. Yes, sir. The El Paso Company is 100
25 percent working interest owner in the well. There are no

1
2 overriding royalty interest owners, and the Jicarilla Tribe
3 maintains a 12-1/2 percent royalty in both zones.

4 Q In your opinion would the granting of
5 this application be in the interests of protection of corre-
6 lative rights and the prevention of waste?

7 A Yes, sir.

8 Q Do you have anything further to offer?

9 A No, sir.

10 Q I think you indicated Exhibits One and
11 Two were prepared by you or under your supervision, is that
12 correct?

13 A They were.

14 MR. BURLESON: At this time I would ask
15 that Exhibits One and Two be admitted into evidence at this
16 hearing.

17 MR. STAMETS: These exhibits will be
18 admitted.

19
20 CROSS EXAMINATION

21 BY MR. STAMETS:

22 Q Mr. Burchell, are the produced liquids
23 from this well compatible?

24 A To the best of my knowledge, and we have
25 checked with the people in the field, that they are compatible.

1
2 The fact that the well is commingling at the present time,
3 unfortunately, has not substantially reduced the well's capa-
4 city to produce.

5 Q It would appear as though, from this
6 production test, that --

7 A Yes.

8 Q -- Exhibit Number Two, that you actually
9 had some commingling going on in 1978.

10 A Yes, it does look -- I do have an answer
11 for that. On the Tocito side of the well for the month of
12 December, 1977, and for the months of January, February, and
13 March of 1978, for those total four months, the Tocito side
14 of the well was shut in, and I believe that during that period
15 of time while it was shut in, that the bottom hole pressure
16 increased around the wellbore so that the rest of 1978, as
17 it was produced it was able to unload a considerable head to
18 the surface, and which, I think, accounts for that amount of
19 production going up for that year.

20 MR. STAMETS: Any other questions of the
21 witness?

22 MR. CHAVEZ: I have a couple of questions.

23 A Yes.

24
25 CROSS EXAMINATION

1
2 BY MR. CHAVEZ:

3 Q The pressures that you related, they
4 were taken in 1980.

5 A They were based on state-related tests.
6 I don't know when the last one was taken, but I can find out
7 that information for you. We have a person here with El Paso's
8 reservoir engineering department who has all of these pres-
9 sure dates.

10 Q Well then the pressures were taken after
11 this leak ---

12 A Oh.

13 Q -- or during the test for the leak?

14 A 1980, we had a packer leakage test, yes.
15 It was taken in August.

16 Q Okay, were the pressures taken from this
17 packer leakage test?

18 A I don't believe those pressures were
19 utilized in the calculation of bottom hole pressure tests.
20 I think this was based on the well's performance over many,
21 many years.

22 MR. BURLESON: Excuse me a second. Mr.
23 Burchell, did you testify that the pressures that you were
24 giving were extrapolations of ---

25 A Extrapolations.

1
2 MR. BURLESON: -- tests --

3 A. From state tests.

4 MR. BURLESON: --- which were taken, ob-
5 viously, during periods when there was an indication that there
6 was no leakage, is that correct?

7 A. Yes, sir. I hope I've answered. I
8 don't know if I have.

9 Q. Well, no, not really.

10 MR. BURLESON: In other words, the actual
11 pressures were at least from 1978 or prior to that.

12 A. Yeah, they were all based on pressures
13 taken prior to 1978.

14 We did not utilize that bad test in 1980,
15 when we observed that the packer was leaking. That particular
16 information was not utilized.

17 MR. BURLESON: And there was a test made
18 packer leakage test made, subsequent to 1978 that indicated
19 that all during 1978, that there was no leakage, is that
20 correct?

21 A. Yes, sir, that's right.

22 Q. Okay. What were your -- the percentage
23 allocations again?

24 A. Okay. With respect to the gas first?

25 Q. Yes.

1
2 A. Okay, with respect to the gas, I recom-
3 mend that based on the Dakota's gas production, and based on
4 the DAKota's remaining reserves, that we utilize 68 percent of
5 the well's production and attribute it to the Dakota formation.

6 And with respect to the liquids, I recom-
7 mend that we use 79 percent of all liquids produced in the
8 future and attribute it to the Dakota.

9 Q. Okay, and then the oil would take the
10 remainder, then.

11 A. Of all liquids. I think both water and
12 oil should --

13 Q. I mean the Tocito would take the remainder.

14 A. Yeah, the Tocito would take the remainder,
15 yes, sir.

16 Q. I think when you were testifying you
17 said 11 percent of the oil.

18 A. Oh, if I did --

19 Q. To the Tocito, and it would be 21 percent.

20 A. Yes, okay, I'm sorry, sir, yes.

21 Q. I added that up.

22 A. Yeah, okay, you're right; whatever is
23 remaining would be --

24 Q. Okay.

25 A. -- attributed to the Tocito.

MR. CHAVEZ; That's all I have.

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

Anything further in this case?

The case will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7118, heard by me on 12/14 1981.

Richard H. Stumm, Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.

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

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

14 January 1981

EXAMINER HEARING

IN THE MATTER OF:

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

CASE
7118

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 to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

David T. Burleson, Esq.
EL PASO EXPLORATION COMPANY
El Paso, Texas

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I N D E X

PAUL W. BURCHELL

Direct Examination by Mr. Burleson	3
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E X H I B I T S

Applicant Exhibit One, Sketch	6
Applicant Exhibit Two, Graph	7

MR. STAMETS: We'll call next Case 7118.

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

MR. BURLESON: David T. Burleson in association with Montgomery and Andrews, for applicant, El Paso Exploration Company.

We will have one witness.

MR. STAMETS: I'd like to have him stand and be sworn at this time, please.

(Witness sworn.)

PAUL W. BURCHELL

being called as a witness and being 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 for the record, please?

A My name is Paul W. Burchell, and I reside in El Paso, Texas.

Q By whom are you employed and in what

1
2 capacity?

3 A. I'm employed by El Paso Natural Gas Com-
4 pany as a Chief Proration Engineer.

5 Q As a proration engineer have you pre-
6 viously testified before the Division or one of its examiners?

7 A. Yes, I have.

8 Q Were your qualifications accepted at that
9 time?

10 A. Yes, they were.

11 Q Are you familiar with El Paso Exploration
12 Company's application in this case?

13 A. Yes, I am.

14 MR. BURLESON: Are the witness' qualifi-
15 cations acceptable?

16 MR. STAMETS: They are.

17 Q Mr. Burchell, who is the operator of the
18 well that is the subject of this case?

19 A. The El Paso Exploration Company is the
20 operator, and I am representing them in this matter.

21 Q What is El Paso seeking in this case?

22 A. We are seeking permission to downhole
23 commingle production of the South Blanco-Tocito Oil Pool with
24 gas of the Basin Dakota Gas Pool and produce this gas through
25 one meter in the Jicarilla 152-W No. 3 Well. This well is

1
2 located in Unit D of Section 7, Township 26 North, Range 5
3 West, Rio Arriba County, New Mexico.

4 This well presently produces from both
5 these formations as a dual completion. El Paso proposes that
6 the allocation of gas and liquids to each formation be divided
7 in a manner which will be explained later on in my testimony.

8 Q Has it been heretofore determined that
9 a problem exists with respect to the equipment installed in
10 this well?

11 A Yes, sir. A leak has been determined to
12 exist. The 1980 annual packer leakage test indicated commun-
13 ication between the Dakota and the Tocito formations in the
14 dually completed well.

15 Q Have you determined where the leak exists?

16 A No, sir. A temperature survey was im-
17 practical to run because of the configuration of the tubings
18 down in the hole.

19 Q Why is El Paso seeking commingling in
20 this case rather than repair of the equipment?

21 A Okay. The downhole commingling is con-
22 sidered by El Paso the most conservative and efficient method
23 to undertake. This is especially due to the low productivity
24 of both zones.

25 We further believe this method would

1
2 permit economical operation of the well for a greater period
3 of time, thereby resulting in the prevention of waste which
4 would result from any premature abandonment of either zone.

5 Q Have you prepared or caused to be pre-
6 pared an exhibit indicating the equipment presently in the
7 hole?

8 A Yes, sir, I have.

9 Q Would you please explain that exhibit,
10 please?

11 A The Exhibit Number One is a diagrammatic
12 sketch of the equipment, which has been marked as El Paso Ex-
13 ploration Company's Exhibit Number One.

14 There is a Baker Model "D" retainer
15 production packer set at 7385 feet. The Tocito is perforated
16 above the packer from 6911 feet to 6924 feet. The Dakota
17 formation is perforated below the packer from 7391 feet to
18 7642 feet.

19 The exhibits shows that the Dakota form-
20 ation produces in somewhat of a -- in a somewhat restricted
21 manner through a string of 1-1/4 inch tubing, and this tubing
22 is set at 6899 feet.

23 With the aid of a piston the Tocito
24 formation produces through the 2-3/8ths inch tubing, which
25 is set at 7384 feet. The Dakota gas starts in the 2-3/8ths

1

2 inch tubing below the packer and enters the 1-1/4 inch tubing
3 by way of a dual string crossover anchor. There is a blanking
4 plug in the 2-3/8ths inch tubing above the crossover and its
5 purpose is to isolate the Tocito from the Dakota flow.

6

Q Have you prepared or caused to be prepared an exhibit indicating the production history of this
7 well?
8

9

A Yes, sir.

10

Q Would that be Exhibit Number Two?

11

A Yes, sir.

12

Q Would you please explain what that exhibit indicates?
13

14

A El Paso Exploration Company's Exhibit
15 marked Number Two shows the Dakota and the Tocito formations'
16 gas production, it's performance since 1970. The figures on
17 the left and righthand side of the graph are data plotted --
18 the gas production plotted in YAO, which is our definition
19 for yearly daily average. Mcf of gas per day. The time is on
20 the bottom of the graph and the solid black line plotted on
21 the top of the graph represents the Basin Dakota, and the
22 dashed line on the bottom half of the graph represents the
23 production, the yearly daily production from the Tocito.

24

As can be observed from the exhibit,
25 both formations were declining under normal conditions until

1
2 the year 1980, when an apparent leak occurred. A packer
3 leakage test was taken at the end of August, 1980, and it
4 showed leaking was taking place.

5 Now, the Dakota has varied between 70 to
6 80 percent of the well's total gas production from 1970 to
7 1979, with the average for these years closer to 70 percent.
8 Then in 1980 the Dakota dropped to 55 percent.

9 Now, just prior to the years of 1979 and
10 1980, the Dakota was averaging 87 Mcf of gas per day and the
11 Tocito was averaging 41 Mcf of gas per day. This is a com-
12 bined total of 128 Mcf of gas per day. This amounts to 68
13 percent of the well's production coming from the Dakota during
14 1978.

15 Q Would you characterize the production
16 as very small, the combined production from this well?

17 A Yes, I would, in my opinion. The flow
18 rates for both the Tocito and the Dakota are small. I might
19 mention the prorated Basin Dakota side of the well is clas-
20 sified as marginal.

21 Q Do you have any information regarding
22 pressure and fluid characteristics of the two zones producing
23 in this well?

24 A Yes, sir. During 1978 the Tocito aver-
25 aged 2-1/2 barrels of water per month and the Dakota made

1
2 9-1/2 barrels of water per month. The Tocito averaged 4 1/2
3 barrels of oil per month and the Dakota made 17-1/4 barrels
4 of oil per month. The Dakota accounted for 79 percent of the
5 liquid hydrocarbons.

6 Now, with respect to the pressures based
7 on the extrapolation of state tests, the Tocito side of the
8 well had a shut-in tubing pressure of 525 pounds per square
9 inch absolute, and this is as of July the 1st, 1980. The
10 corresponding bottom hole pressure is estimated to be 714
11 pounds per square inch absolute. Also, based on the extrapo-
12 lation of state tests, the Dakota shut-in tubing pressure was
13 860 psia with a corresponding bottom hole pressure estimated
14 at 1167 pounds per square inch absolute.

15 Q Now the production information with re-
16 spect to oil and water was for the year 1978.

17 A Yes, sir.

18 Q Was that the last year of which you could
19 be relatively certain that the production was not commingled?

20 A Yes, sir. All the years prior to 1979
21 and including 1979, the packer leakage tests were all positive,
22 and it wasn't until 1980 that we saw the -- and noted that
23 we had a problem. There is every possibility that back in
24 1979 shortly after the test was taken, that the well could
25 have started developing problems, and that's why I'm basing

1
2 all my liquid and gas production figures at this time prior
3 to the 1979 positive test.

4 Q Do you believe that these fluid and pres-
5 sure characteristics would be compatible should commingling
6 be approved in this case?

7 A Yes, sir, because of the small amount of
8 pressure differential and liquids, I would not expect any
9 migration of gas or liquids from one formation to the other,
10 particularly if the well is not shut-in for an extended period
11 of time. And I might point out that the bottom - that the
12 ratio of the bottom hole pressures is 1.6-to-1.

13 Q What advantage would there be in com-
14 mingling these two zones, Mr. Burchell?

15 A The tubing configuration, as shown on
16 Exhibit Number One, was originally done to permit the Tocito
17 and Basin to be pumped, if necessary. This has not taken
18 place as we originally expected, and unfortunately, this un-
19 usual tubing arrangement prevents the Dakota formation from
20 unloading in a satisfactory manner.

21 From a production viewpoint it would be
22 best to simplify the tubing configuration and commingling of
23 the formations would result in the most simple tubing arrange-
24 ment.

25 To commingle El Paso proposed to remove

1
2 the 1-1/4 inch tubing, the permanent packer, and also the
3 2-3/8ths inch tubing string, and then check the 2-3/8ths inch
4 out and repair any worn tubing that we might find, and then
5 rerun a single 2-3/8ths inch tubing string.

6 This would have the advantage of the
7 Tocito and the Dakota gas both helping to lift the liquids
8 in the hole.

9 It is also believed that by commingling
10 the small amount of gas, which should amount to about 150 Mcf
11 of gas per day total, that neither formation would have to
12 be prematurely abandoned. It is estimated that as of July
13 the 1st, 1980, the Tocito has around 453 MMCF of gas of re-
14 maining reserves, and the Dakota had around 994 MMCF of gas
15 of remaining reserves, and their reserves can be recovered
16 through commingling.

17 Q Has El Paso in a previous proceeding
18 sought and obtained permission to commingle two zones for a
19 well in the general area that we're speaking of here?

20 A Yes, sir. Several years ago we came
21 before the Division and requested commingling in the Jicarilla
22 119-N Well No. 4, and it's located in Section 6 of Township
23 26 North, Range 4 West. It's about five miles due east of
24 this well.

25 And in that particular case it was almost

1
2 similar to this one here with regard to the peculiar tubing
3 configuration in the well, and we had leaking taking place
4 and we requested to run a single string of tubing and commingle
5 the zones, and both -- in that case it was the Mesaverde and
6 Dakota.

7 And in about 1977 we initiated the work
8 on the well. This was after the Division issued an order,
9 and I believe it was R-5174, and prior to the commingling the
10 well was producing from both formations at a combined rate
11 of 4336 Mcf of gas per month, and after the commingling work
12 was completed the well produced almost double, 7805 Mcf of
13 gas per month. And this well that I'm referring to, as of
14 1980, is still producing the higher volume of gas, which is
15 around 7830 Mcf of gas per month, so it worked very satis-
16 factorily in that particular case.

17 Q And that most recent data that you had
18 was for the month of September, 1980, is that correct?

19 A Yes, sir.

20 Q Concerning the cost of the commingling,
21 or affecting the changes required to commingle, what do we
22 estimate to be the cost of this?

23 A If we are allowed to commingle?

24 Q Yes.

25 A The total cost of re-entering the well.

1
2 will amount to about \$31,000.

3 Q And there would be no appreciable, if
4 any, cost savings in commingling in this case, is that correct?

5 A No, whether we enter the well to repair
6 or whether we enter the well to commingle, in either case it's
7 going to cost about the same.

8 Q What you're saying is that our motivation
9 for doing it in this case is because you feel that this is
10 the most efficient and effective way to do it and will result
11 in the greatest ultimate production, ---

12 A Yes, sir.

13 Q --- is that correct?

14 A Yes, sir. Yes, sir.

15 MR. BURLESON: I might mention that the
16 order number where this previous commingling was permitted
17 was, as Mr. Burchell has indicated, Order No. R-5174. The
18 case number was 5621.

19 Q If Commission approval is --- if Division
20 approval is granted, do you propose a formula for the alloca-
21 tion of gas and liquids to the two individual zones?

22 A Yes, and I would base my recommendation
23 on my prior testimony, which was related to the Dakota's
24 average daily production of gas of 68 percent of the well's
25 total gas production, and I would also relate it to my prior

1
2 testimony with respect to the remaining reserves of the Dakota,
3 which was 994 MMCF, and which amounted to 98.7 percent of the
4 well's total remaining reserves.

5 MR. STAMETS: Excuse me, Mr. Burchell.

6 A. Yes.

7 MR. STAMETS: You didn't say 98 percent
8 you did say 98 percent; certainly that's not what you meant.

9 A. No, sir, I'm sorry, did I say 98 percent?
10 I meant 68.7 percent for remaining reserves in the Dakota
11 and 68 percent was the total amount of Dakota gas production
12 during 1978.

13 With regard to the liquid hydrocarbon
14 production, I would recommend that 79 percent of the liquid
15 production in the well be attributed to the Dakota formation,
16 so with respect to all these figures it is recommended that
17 68 percent of the well's gas and 79 percent of the well's
18 liquid production be attributed to the Basin Dakota Pool, and
19 32 percent of the gas and 11 percent of the liquids would be
20 attributed to the South Blanco-Tocito Pool.

21 Q. Okay. Would you please describe the
22 ownership in this well with regard to the two individual zones
23 that are the subject of this hearing?

24 A. Yes, sir. The El Paso Company is 100
25 percent working interest owner in the well. There are no

1
2 overriding royalty interest owners, and the Jicarilla Tribe
3 maintains a 12-1/2 percent royalty in both zones.

4 Q In your opinion would the granting of
5 this application be in the interests of protection of corre-
6 lative rights and the prevention of waste?

7 A Yes, sir.

8 Q Do you have anything further to offer?

9 A No, sir.

10 Q I think you indicated Exhibits One and
11 Two were prepared by you or under your supervision. Is that
12 correct?

13 A They were.

14 MR. BURLESON: At this time I would ask
15 that Exhibits One and Two be admitted into evidence at this
16 hearing.

17 MR. STAMETS: These exhibits will be
18 admitted.

19
20 CROSS EXAMINATION

21 BY MR. STAMETS:

22 Q Mr. Burchell, are the produced liquids
23 from this well compatible?

24 A To the best of my knowledge, and we have
25 checked with the people in the field, that they are compatible.

1
2 The fact that the well is commingling at the present time,
3 unfortunately, has not substantially reduced the well's capa-
4 city to produce.

5 Q It would appear as though, from this
6 production test, that --

7 A Yes.

8 Q -- Exhibit Number Two, that you actually
9 had some commingling going on in 1978.

10 A Yes, it does look -- I do have an answer
11 for that. On the Tocito side of the well for the month of
12 December, 1977, and for the months of January, February, and
13 March of 1978, for those total four months, the Tocito side
14 of the well was shut in, and I believe that during that period
15 of time while it was shut in, that the bottom hole pressure
16 increased around the wellbore so that the rest of 1978, as
17 it was produced it was able to unload a considerable head to
18 the surface, and which, I think, accounts for that amount of
19 production going up for that year.

20 MR. STAMETS: Any other questions of the
21 witness?

22 MR. CHAVEZ: I have a couple of questions.

23 A Yes.

24
25 CROSS EXAMINATION

1
2 BY MR. CHAVEZ:

3 Q The pressures that you related, they
4 were taken in 1980.

5 A They were based on state-related tests.
6 I don't know when the last one was taken, but I can find out
7 that information for you. We have a person here with El Paso's
8 reservoir engineering department who has all of these pres-
9 sure dates.

10 Q Well then the pressures were taken after
11 this leak --

12 A Oh.

13 Q -- or during the test for the leak?

14 A 1980, we had a packer leakage test, yes.
15 It was taken in August.

16 Q Okay, were the pressures taken from this
17 packer leakage test?

18 A I don't believe those pressures were
19 utilized in the calculation of bottom hole pressure tests.
20 I think this was based on the well's performance over many,
21 many years.

22 MR. BURLESON: Excuse me a second. Mr.
23 Burchell, did you testify that the pressures that you were
24 giving were extrapolations of --

25 A Extrapolations.

1
2 MR. BURLESON: -- tests --

3 A. From state tests.

4 MR. BURLESON: -- which were taken, ob-
5 viously, during periods when there was an indication that there
6 was no leakage, is that correct?

7 A. Yes, sir. I hope I've answered. I
8 don't know if I have.

9 Q. Well, no, not really.

10 MR. BURLESON: In other words, the actual
11 pressures were at least from 1978 or prior to that.

12 A. Yeah, they were all based on pressures
13 taken prior to 1978.

14 We did not utilize that bad test in 1980,
15 when we observed that the packer was leaking. That particular
16 information was not utilized.

17 MR. BURLESON: And there was a test made
18 packer leakage test made, subsequent to 1978 that indicated
19 that all during 1978, that there was no leakage, is that
20 correct?

21 A. Yes, sir, that's right.

22 Q. Okay. What were your - the percentage
23 allocations again?

24 A. Okay. With respect to the gas first?

25 Q. Yes.

1
2 A Okay, with respect to the gas, I recom-
3 mend that based on the Dakota's gas production, and based on
4 the DAKota's remaining reserves, that we utilize 68 percent of
5 the well's production and attribute it to the Dakota formation.

6 And with respect to the liquids, I recom-
7 mend that we use 79 percent of all liquids produced in the
8 future and attribute it to the Dakota.

9 Q Okay, and then the oil would take the
10 remainder, then.

11 A Of all liquids. I think both water and
12 oil should --

13 Q I mean the Tocito would take the remainder.

14 A Yeah, the Tocito would take the remainder,
15 yes, sir.

16 Q I think when you were testifying you
17 said 11 percent of the oil.

18 A Oh, if I did --

19 Q To the Tocito, and it would be 21 percent.

20 A Yes, okay, I'm sorry, sir, yes.

21 Q I added that up.

22 A Yeah, okay, you're right; whatever is
23 remaining would be --

24 Q Okay.

25 A -- attributed to the Tocito.

MR. CHAVEZ: That's all I have.

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

Anything further in this case?

The case will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd 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

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January 13, 1981

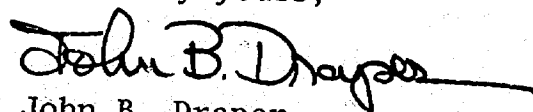
New Mexico Energy and
Minerals Department
Oil Conservation Division
Land Office Building
Santa Fe, New Mexico 87503

Re: NMOCD Case No. 7118 - Application of El Paso
Exploration Company to commingle

Gentlemen:

Please be advised that David T. Burleson of the office of
General Counsel of El Paso Natural Gas Company, El Paso, Texas,
holding company for El Paso Exploration Company, is associated
with our firm for the presentation of evidence and argument in
the above-referenced case.

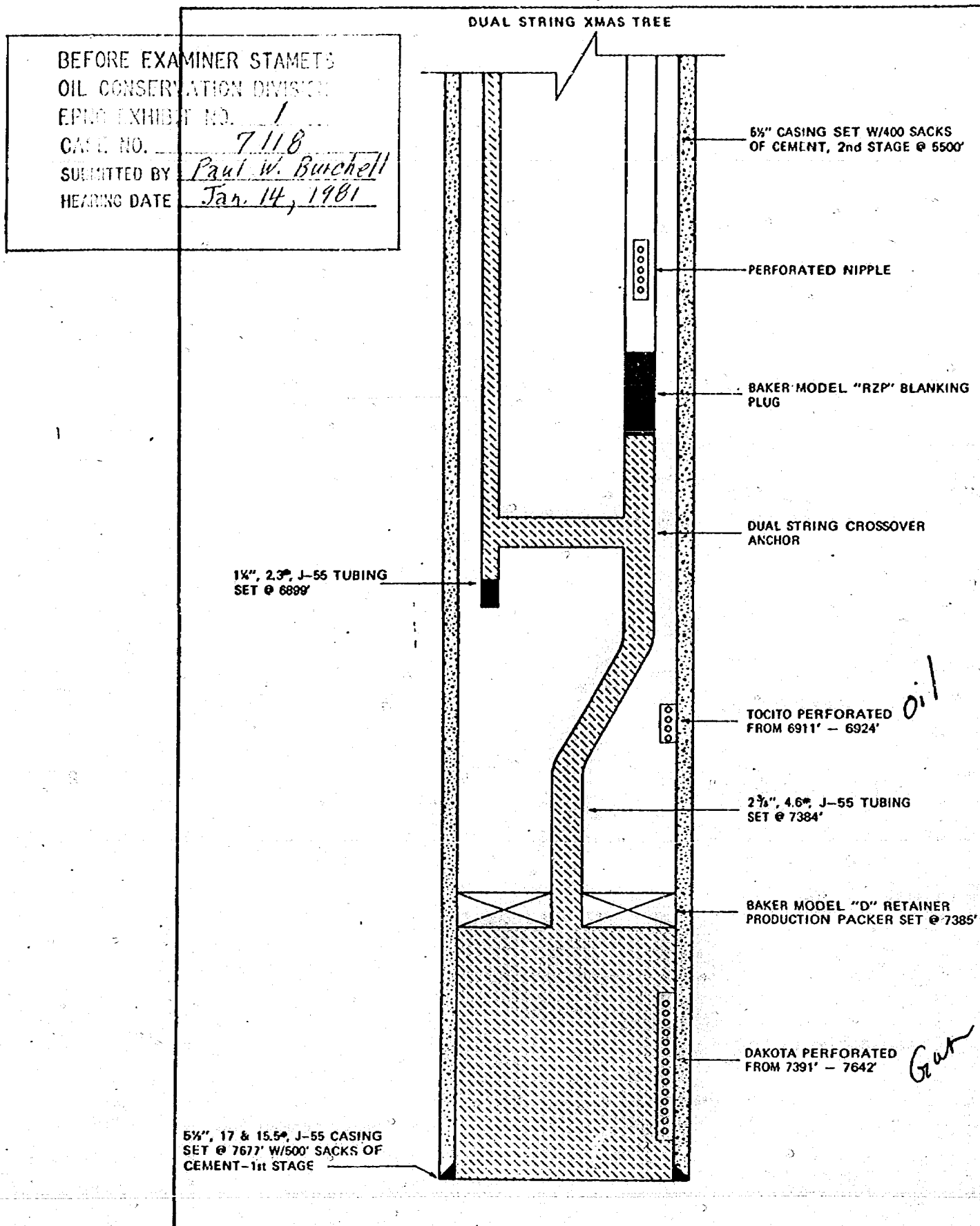
Sincerely yours,


John B. Draper

JBD/jau

SCHEMATIC DIAGRAM OF DUELLY-COMPLETED WELL
EL PASO EXPLORATION CO. JICARILLA 152W No. 3
UNIT D OF SECTION 7, T-26-N, R-5-W
RIO ARriba COUNTY, NEW MEXICO

EXHIBIT 1

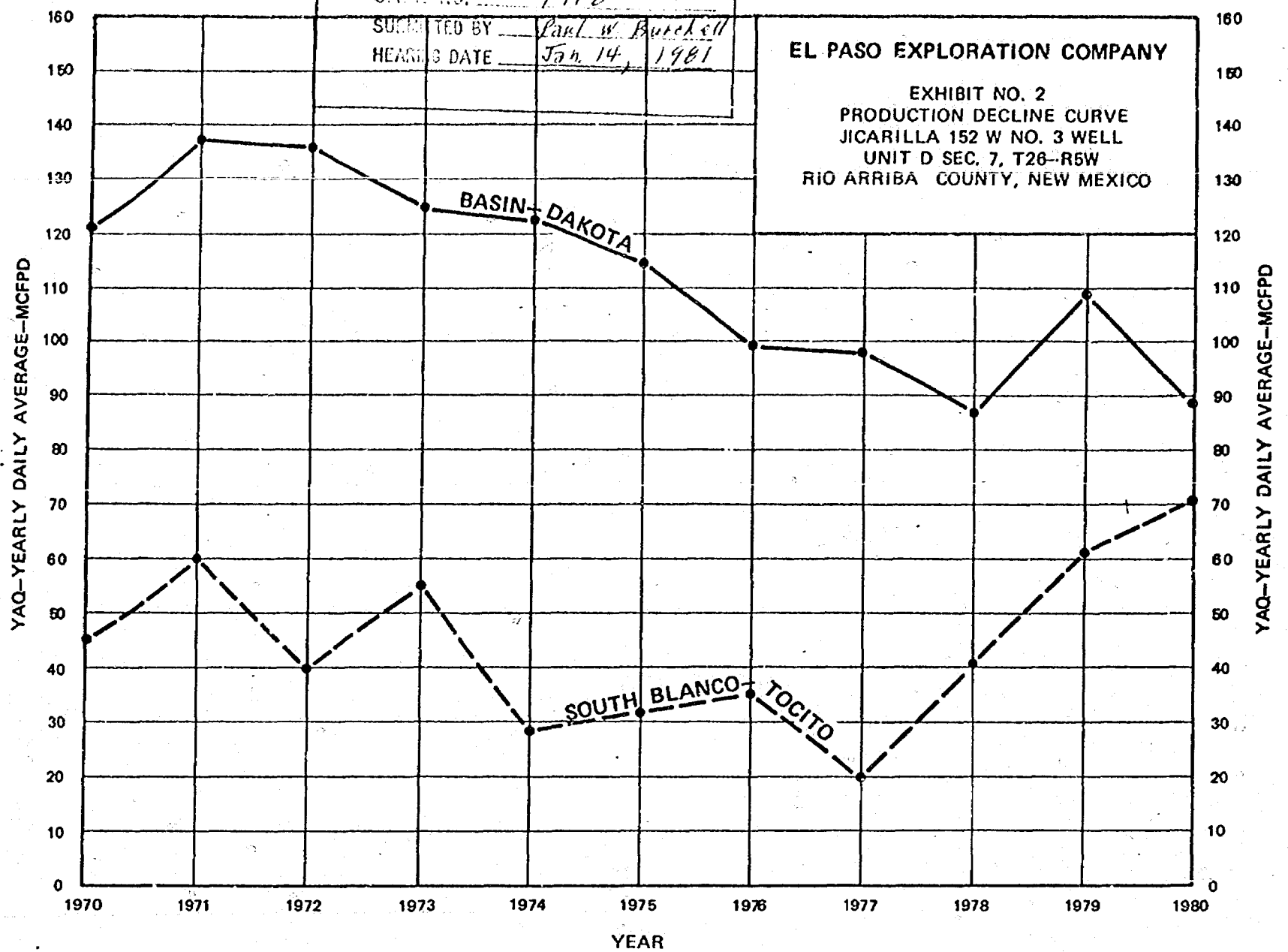


BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EPHC EXHIBIT NO. 2
CASE NO. 7118

SUBMITTED BY Paul W. Butchell
HEARING DATE Jan. 14, 1981

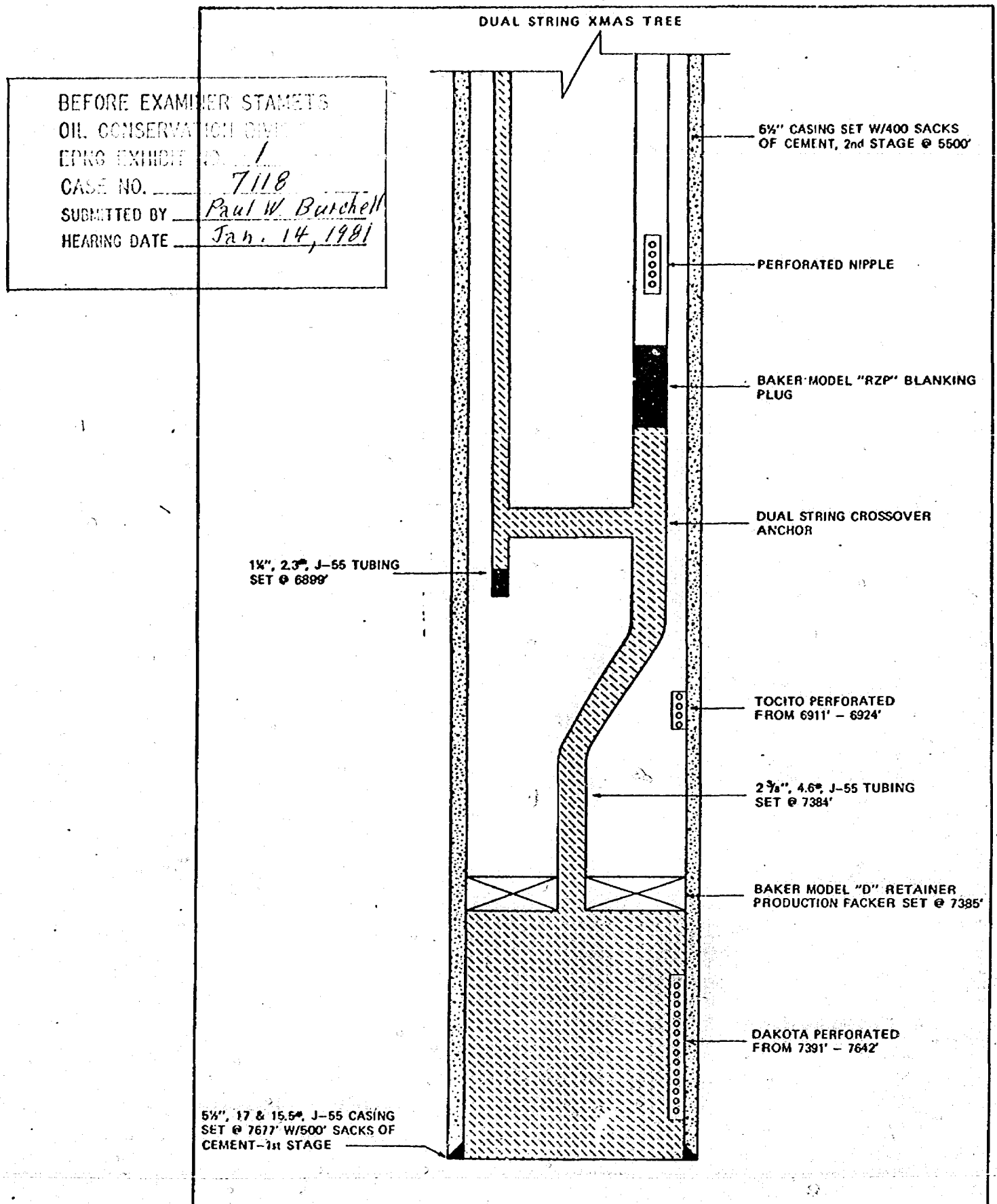
EL PASO EXPLORATION COMPANY

EXHIBIT NO. 2
PRODUCTION DECLINE CURVE
JICARILLA 152 W NO. 3 WELL
UNIT D SEC. 7, T28-R5W
RIO ARriba COUNTY, NEW MEXICO



SCHEMATIC DIAGRAM OF DUELLY-COMPLETED WELL
EL PASO EXPLORATION CO. JICARILLA 162W No. 3
UNIT D OF SECTION 7, T-26-N, R-6-W
RIO ARriba COUNTY, NEW MEXICO

EXHIBIT 1

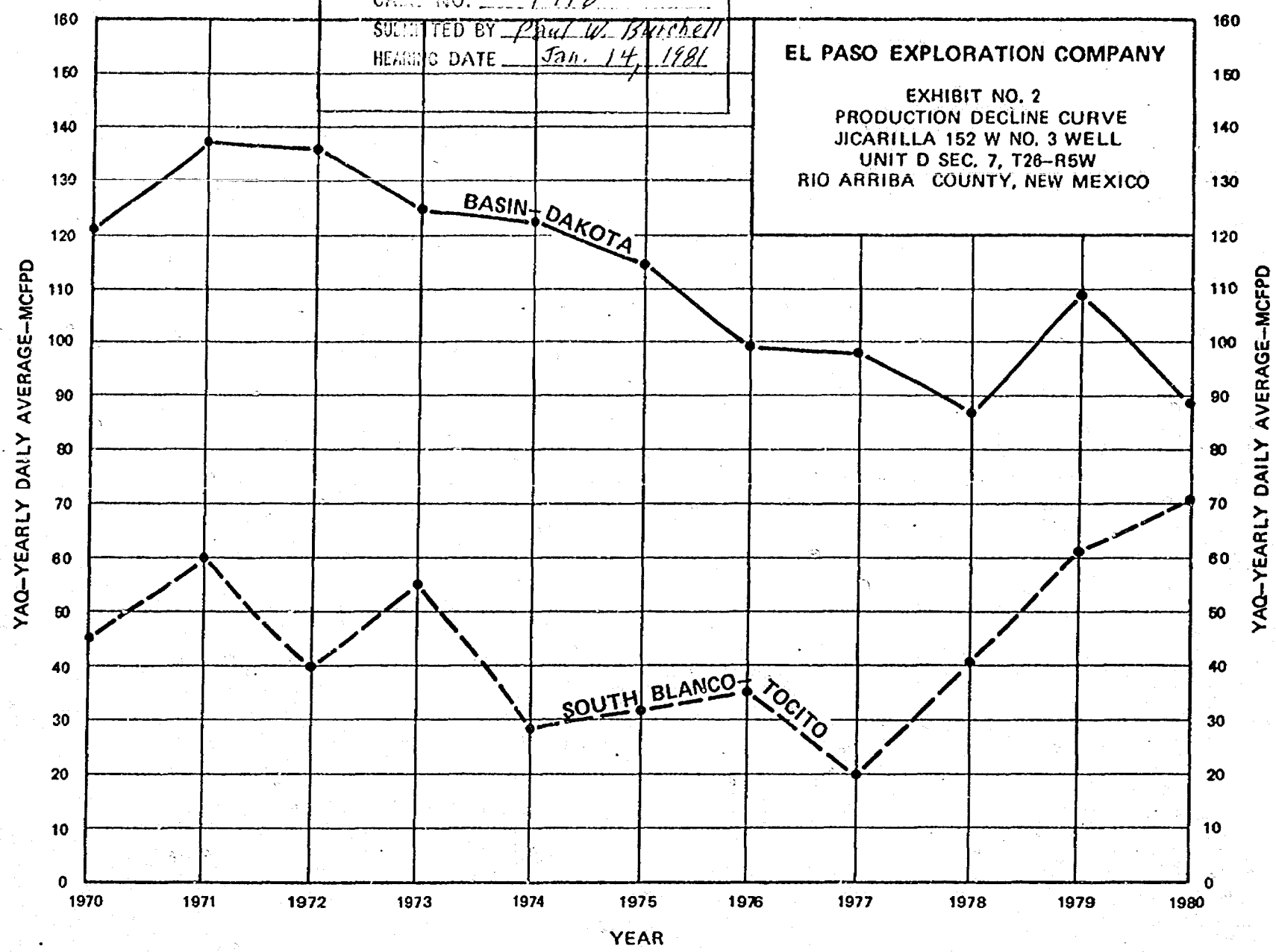


BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EPNG EXHIBIT NO. 2
CASE NO. 7118

SUBMITTED BY Paul W. Birchell
HEARING DATE Jan. 14, 1981

EL PASO EXPLORATION COMPANY

EXHIBIT NO. 2
PRODUCTION DECLINE CURVE
JICARILLA 152 W NO. 3 WELL
UNIT D SEC. 7, T28-R5W
RIO ARriba COUNTY, NEW MEXICO



Dockets Nos. 4-81 and 5-81 are tentatively set for January 28 and February 11, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 14, 1981

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

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

ALLOWABLE: (1) Consideration of the allowable production of gas for February, 1981, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for February, 1981, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 7117: Application of Gulf Oil Corporation for a non-standard gas proration unit, unorthodox location, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a previously approved 320-acre non-standard proration unit comprising the E/2 of Section 25, Township 20 South, Range 36 East, Eumont Gas Pool, to its L. W. White (NCT-A) Wells No. 2 in Unit I and No. 7 at an unorthodox location 990 feet from the North line and 660 feet from the East line of said Section 25.

CASE 7118: Application of El Paso Exploration Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Torito and Basin-Dakota production in the wellbore of its Jicarilla 152 W Well No. 3 in Unit D of Section 7, Township 26 North, Range 5 West.

CASE 7119: Application of Shell Oil Company for a unit agreement, Bernalillo and Sandoval Counties, New Mexico. Applicant, in the above-styled cause, seeks approval for the West Mesa Unit Area, comprising 26,722 acres, more or less, of State, Federal, and fee lands in Townships 10, 11, and 12 North, Ranges 1 and 2 East.

CASE 7120: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of undesignated Gallup and Basin-Dakota production in the wellbore of its Merry May Well No. 1 in Unit I of Section 24, Township 24 North, Range 10 West.

CASE 7121: Application of Flag-Redfern Oil Co. for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Pinon-Fruitland and Fulcher Kutz-Pictured Cliffs production in the wellbores of its Aloha Wells Nos. 1 and 2 located in Units L and D, respectively, of Section 16, Township 28 North, Range 11 West.

CASE 7122: Application of Elk Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian formation in the interval from 10,445 feet to 10,516 feet in its C. S. State Well No. 2 in Unit K of Section 26, Township 14 South, Range 34 East, High Plains-Pennsylvanian Pool.

CASE 7123: 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 Federal "AB" Well No. 7, a Morrow test to be drilled 1980 feet from the North line and 660 feet from the West line of Section 9, Township 13 South, Range 25 East, the N/2 of said Section 9 to be dedicated to the well.

CASE 7124: Application of Caribou Four Corners, Inc. for two non-standard proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two non-standard oil proration units in Section 13, Township 29 North, Range 15 West, Cha Cha-Gallup Oil Pool, as follows: a 56.09-acre unit consisting of those fee lands comprising the NE/4 NW/4 and northermost 16.09 acres of the SE/4 NW/4 of said Section 13, and a 66.33-acre unit consisting of those fee lands comprising the NW/4 NW/4 and northermost 23.33 acres of the SW/4 NW/4 of said Section 13. In the alternative applicant seeks an order directing the escrowing of funds attributable to those lands in the E/2 NW/4 and W/2 NW/4, respectively, of said Section 13 which are not included in the above-described non-standard proration units.

DOCKET: COMMISSION HEARING - MONDAY - JANUARY 19, 1981

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

The following cases are continued from the December 11, 1980, Commission Hearing:

CASE 7025: (DE NOVO)

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 W/2 of Section 35, 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, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

Upon application of Southland Royalty Company this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 7008: (DE NOVO)

Application of Coronado Exploration Corp. for eight compulsory poolings, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying eight 40-acre proration units, being the NE/4 NE/4 of Section 4 and the NW/4 NE/4 of Section 5, both in Township 12 South, Range 28 East, and the NW/4 SE/4 of Section 6, the NE/4 NW/4 of Section 23, the NE/4 SE/4 of Section 28, the SE/4 SE/4 of Section 29, the NE/4 NW/4 of Section 32, and the SE/4 NW/4 of Section 33, all in Township 11 South, Range 28 East, each to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a charge for risk involved in drilling said wells.

Upon application of Tenneco Oil Company this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6965: (DE NOVO)

Application of Supron Energy Corporation for a non-standard gas proration unit, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard Mesaverde and Dakota gas proration unit comprising the SE/4 of Section 8, Township 25 North, Range 3 West, to be dedicated to a well to be drilled at a standard location thereon.

Upon application of Curtis J. Little and Beartooth Oil and Gas Company this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6896: (DE NOVO)

Application of John E. Schalk for a non-standard gas proration unit and an unorthodox gas well location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard Blanco Mesaverde gas proration unit comprising the NE/4 of Section 8, Township 25 North, Range 3 West, to be dedicated to his Gulf Well No. 2 to be drilled at an unorthodox location 1925 feet from the North line and 790 feet from the East line of said Section 8.

Upon application of Curtis J. Little and Beartooth Oil and Gas Company this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6996:

Application of John E. Schalk for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Blanco Mesaverde Pool underlying the NE/4 of Section 8, Township 25 North, Range 3 West, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

DOCKET: COMMISSION HEARING - WEDNESDAY - JANUARY 21, 1981

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICOCASE 7042: (Continued and Readvertised)

Application of Doyle Hartman for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to the following depths underlying the following 40-acre tracts in Section 19, Township 24 South, Range 37 East: NW/4 NE/4: 3446 feet; SE/4 NE/4: 3408 feet; SW/4 NE/4: 3419 feet; SE/4 SE/4: 3402 feet; and NE/4 SE/4: 3387 feet.

CASE 7043: (Continued and Readvertised)

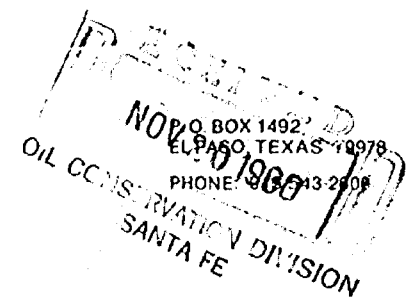
Application of Cities Service Company for downhole commingling and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat and Langlie Mattix production in the wellbores of the following Doyle Hartman wells in Section 19, Township 24 South, Range 37 East: his Adele Sowell Wells Nos. 1 and 2 located in Units I and P, respectively, and his Cities Thomas Wells Nos. 1, 3, and 4 in Units B, H, and G, respectively. Applicant further seeks approval of the simultaneous dedication of the E/2 of Section 19 for Jalmat production from the above Hartman wells and from its Thomas "A" Wells Nos. 1 and 2, located in Units O and G, respectively.

CASE 7041: (DE NOVO)

Application of John Yuronka for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3,408 feet, subsurface, under the NW/4 SW/4 of Section 17, Township 24 South, Range 37 East.

Upon application of Cities Service Company this case will be heard De Novo pursuant to the provisions of Rule 1220.

El Paso EXPLORATION
COMPANY



November 17, 1980

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Case 7118

Gentlemen:

El Paso Exploration Company respectfully requests a hearing be set before the Division or its designated examiner on January 14, 1981, if possible. El Paso seeks approval to downhole commingle production from the South Blanco-Tocito Oil Pool with production from the Basin-Dakota Gas Pool in its Jicarilla 152 W No. 3 Well. This Well is located in Unit Letter D of Section 7, T26N-R5W, Rio Arriba County, New Mexico.

Very truly yours,

E. R. Manning

E. R. Manning

je

cc: Messrs. D. C. Adams - Farmington
D. E. Adams
D. T. Burleson
D. N. Canfield
E. J. Coel
J. F. Eichelmann, Jr.
C. E. Matthews
D. R. Read
L. G. Truby

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. 7118

Order No. R-6570

SP
Ref
APPLICATION OF EL PASO EXPLORATION COMPANY
FOR DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO. *AK*

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 14,
19 81, at Santa Fe, New Mexico, before Examiner Richard
L. Stamets.

NOW, on this _____ day of January, 19 81, 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 Exploration Company, is
the owner and operator of the Jicarilla 152 W Well No. 3,
located in Unit D of Section 7, Township 26 North,
Range 5 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle
South Blanco-Tocito and Basin-Dakota production
within the wellbore of the above-described well.

(4) That from the South Blanco-Tocito zone, the subject well is capable of low ^{rates of} ~~marginal~~ production only.

(5) That from the Basin-Dakota zone, the subject well is capable of low ^{rates of} ~~marginal~~ production only.

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

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

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

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, ^{21 percent and 31 percent of the commingled} oil and gas ^{respectively,} production should be allocated to the South Blanco-Tocito zone, and ^{79 percent and 69 percent of the commingled} oil and gas ^{respectively,} production to the Basin-Dakota zone.

(ALTERNATE)

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

IT IS THEREFORE ORDERED:

(1) That the applicant, El Paso Exploration Company, is hereby authorized to commingle South Blanco-Tocito and Basin-Dakota production within the wellbore of the Jicarilla 152 W Well No. 3, located in Unit D of Section 7, Township 26 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 ^{respectively,} 21 percent and 31 percent of the commingled oil and gas production shall be allocated to the South Blanco-Tocito zone and ^{respectively,} 79 percent and 69 percent of the commingled oil and gas production shall be allocated to the Basin-Dakota 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.