

CASE 1771: Appl. of FARMER OIL
COMPANY for rules for the SOUTH
CORBIN-WOLFCAMP OIL POOL.

Case Number

3771

Application
Transcripts.

Small Exhibits

ETC.

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



P. O. BOX 2088
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

June 26, 1968

Mr. James Durrett
Rhodes, McCallister & Durrett
Attorneys at Law
300 Pan American Freeway - NE
Albuquerque, New Mexico

Re: Case No. 3771
Order No. R-3440
Applicant:
Pennsoil Company

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Astec OCC

Other Mr. E. F. Motter - Cities Service Oil Co, Hobbs, N.M.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3771
Order No. R-3440

APPLICATION OF PENNSOIL COMPANY
FOR SPECIAL POOL RULES, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8 a.m. on May 22, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Matter.

NOW, on this 26th day of June, 1968, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

WHEREAS:

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

(2) That the applicant, Pennsoil Company, seeks the promul-
gation of special pool rules for the South Corbin-Wolfcamp Oil
Pool, Lea County, New Mexico, including a provision for 160-acre
spacing and proration units.

(3) That the evidence presented at the hearing disclosed
that two of the three wells drilled in the pool to date have
experienced a very rapid decline in production which would
indicate that the pool reserves are either extremely limited
or the area of drainage is very small, or both.

(4) That the production history of the third well in the
pool, applicant's well completed in April, 1968, is insufficient

-2-

CASE No. 3771

Order No. R-3440

to counter the inferences of extremely limited reserves and/or drainage area drawn from the production history of the two prior wells completed in the pool.

(5) That the applicant has not established that the wells in the South Corbin-Wolfcamp Oil Pool can efficiently and economically drain and develop 160-acres or that the establishment of special rules and regulations, even on a temporary basis, would prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, prevent reduced recovery which might result from the drilling of too few wells, or otherwise prevent waste or protect correlative rights.

(6) That the subject application should be denied.

IT IS THEREFORE ORDERED:

(1) That the subject application is hereby denied.

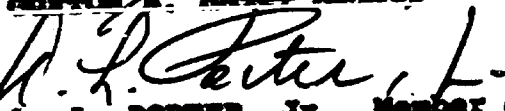
(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARSO, Chairman


ARTHUR E. RAME, Member


A. L. PORTER, Jr., Member & Secretary

esr/

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date June 21

CASE 3771

Hearing Date May 22, 1948

My recommendations for an order in the above numbered cases are as follows:

The Commission should not authorize 160-acre spacing for the South Corbin - Wolfcamp Pool.

The evidence presented at the hearing indicates that ~~one~~ ^{two of three} wells drilled to date have a ~~very~~ rapid decline which would indicate that the reserves are ~~very~~ ^{strictly} limited or the area of drainage very small. The third well in the pool, applicant's well, has an I.P. of 372 BOPD for a total production of 3144 bbls in 14 days in April. If the other wells are any criterion, this well will be down to just a few hundred barrels per month within a few mos. ^{Staff Member} Application should therefore be denied on the grounds of insufficient evidence to show

CASE 3751 CONTINUED FROM PAGE -1-

tubing and gas from the Morrow formation through 2-inch tubing. Applicant also seeks an exception to the tubing requirements of Commission Rule 107 in that said 1.38-inch tubing would be set more than 250 feet above the uppermost Wolfcamp perforation. Applicant further seeks approval for the non-standard location for said well in the South Corbin-Morrow Gas Pool if the E/2 of said Section 29 is dedicated to the well as proposed, or in the alternative, applicant seeks approval for a non-standard gas proration unit for the well comprising the E/2 NW/4 and the NE/4 of said Section 29.

CASE 3771:

Application of Pennzoil Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Corbin-Wolfcamp Oil Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units.

CASE 3772:

Application of George L. Buckles Company for three waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute three waterflood projects by the injection of water into the Queen Sand of the Langlie-Mattix Pool in Township 25 South, Range 37 East, Lea County, New Mexico, as follows:

A waterflood project comprising all of Section 3 and the E/2 NE/4 and NE/4 SE/4 of Section 4, with injection to be through eight wells located in Units A, F, J, L, M, O, & P of Section 3, and Unit H of Section 4;

A waterflood project comprising the S/2 S/2 of Section 10, the W/2 SW/4 of Section 11, the W/2 NW/4 of Section 14, and the NE/4 and NE/4 NW/4 of Section 15, with injection to be through ten wells located in Units M & O of Section 10, Unit M of Section 11, Unit D of Section 14, and Units A, B, C, G, and H of Section 15.

A waterflood project comprising the NE/4 of Section 22, with injection to be through three wells located in Units B, G, and H of Section 22;

Numerous of the above-described water injection wells are proposed to be located at unorthodox locations, often 5 to 15 feet from the corners and/or boundaries of their respective 40-acre tracts.

PLEASE NOTE THAT THIS HEARING WILL START AT 8 O'CLOCK A.M.

Docket No. 16-68

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 22, 1968

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

The following cases will be heard before Daniel S. Nutter, Examiner,
or Elvis A. Utz, Alternate Examiner:

CASE 3769: Application of Texas Pacific Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the South Leonard (Queen) Unit Area comprising 640 acres, more or less, of Federal and Fee lands in Township 26 South, Range 37 East, Lea County, New Mexico.

CASE 3770: Application of Texas Pacific Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its South Leonard (Queen) Unit Area by the injection of water into the Queen formation through five wells located in Sections 13, 23, and 24, Township 26 South, Range 37 East, South Leonard-Queen Pool, Lea County, New Mexico.

CASE 3751: (Continued and readvertised from the April 24, 1968, Examiner Hearing):

Application of Pennzoil Company for a dual completion, tubing exception, and a non-standard gas well location or non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Hudson Federal 29 Well No. 1 located 660 feet from the North line and 1980 feet from the East line of Section 29, Township 18 South, Range 33 East, South Corbin Field, Lea County, New Mexico, in such a manner as to produce oil from the Wolfcamp formation through 1.38-inch ID

CASE 3751 CONTINUED FROM PAGE -1-

tubing and gas from the Morrow formation through 2-inch tubing. Applicant also seeks an exception to the tubing requirements of Commission Rule 107 in that said 1.38-inch tubing would be set more than 250 feet above the uppermost Wolfcamp perforation. Applicant further seeks approval for the non-standard location for said well in the South Corbin-Morrow Gas Pool if the E/2 of said Section 29 is dedicated to the well as proposed, or in the alternative, applicant seeks approval for a non-standard gas proration unit for the well comprising the E/2 NW/4 and the NE/4 of said Section 29.

CASE 3771:

Application of Pennzoil Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Corbin-Wolfcamp Oil Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units.

CASE 3772:

Application of George L. Buckles Company for three waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute three waterflood projects by the injection of water into the Queen Sand of the Langlie-Mattix Pool in Township 25 South, Range 37 East, Lea County, New Mexico, as follows:

A waterflood project comprising all of Section 3 and the E/2 NE/4 and NE/4 SE/4 of Section 4, with injection to be through eight wells located in Units A, F, J, L, M, O, & P of Section 3, and Unit H of Section 4;

A waterflood project comprising the S/2 S/2 of Section 10, the W/2 SW/4 of Section 11, the W/2 NW/4 of Section 14, and the NE/4 and NE/4 NW/4 of Section 15, with injection to be through ten wells located in Units M & O of Section 10, Unit M of Section 11, Unit D of Section 14, and Units A, B, C, G, and H of Section 15.

A waterflood project comprising the NE/4 of Section 22, with injection to be through three wells located in Units B, C, and H of Section 22;

Numerous of the above-described water injection wells are proposed to be located at unorthodox locations, often 5 to 15 feet from the corners and/or boundaries of their respective 40-acre tracts.

- CASE 3773: Application of Mabee Royalties, Inc., and Yuronka and Chandler, for an amendment to Orders Nos. R-3263 and R-3388, Lea County, New Mexico. Applicants, in the above-styled cause, seek the amendment of Orders Nos. R-3263 and R-3388 to designate Mabee Royalties, Inc., as operators of the S/2 SW/4 and NE/4 SW/4 of Section 7, Township 22 South, Range 38 East, Lea County, New Mexico, rather than John Yuronka and Robert E. Chandler, who were originally designated as operators of said compulsorily pooled lands.
- CASE 3774: Application of Ernest A. Hanson for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of his Max Outman Well No. 5 located in Unit N of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of Drinkard and East Brunson-Granite Wash oil through parallel strings of tubing.
- CASE 3775: Application of Cities Service Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its State "AE" Well No. 2-Y at an unorthodox location 1420 feet from the South line and 990 feet from the West line of Section 36, Township 16 South, Range 36 East, Lovington-Abo Pool, Lea County, New Mexico. Said well will be bottomed no closer than 1420 feet to the South line nor farther than 990 feet from the West line of said Section 36, and will be drilled as a replacement for applicant's State "AE" Well No. 2 on the same 40-acre tract, which well must be abandoned due to a casing failure.
- CASE 3776: Application of J. M. Huber Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Union-State Unit Area comprising 1360 acres, more or less, of State lands in Township 15 South, Range 32 East, Lea County, New Mexico.
- CASE 3701 (Reopened):
- In the matter of Case No. 3701 being reopened at the request of Coastal States Gas Producing Company to consider the amendment of the special pool rules for the Baum-Wolfcamp Pool, Lea County, New Mexico, to provide for 160-acre spacing and proration units with the assignment of 80-acre allowables.

Mobil Oil Corporation

P.O. BOX 633
MIDLAND, TEXAS 79701

May 20, 1968

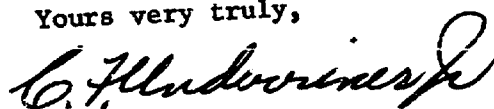
New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico 87501

CASE NO. 3771 - PENNZOIL'S
PROPOSED FIELD RULES
SOUTH CORBIN (WOLFCAMP) FIELD
LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil received Pennzoil's proposed field rules for the South Corbin (Wolfcamp) Field, Lea County, New Mexico. Mobil supports Pennzoil's recommendations and urges the Commission to adopt the proposed rules for the subject field.

Yours very truly,



C. F. Underriner, Jr.
Division Engineer

FLHart:msw

cc: Pennzoil Company
Midland Savings Building
Midland, Texas 79701

MAIN OFFICE

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ROBERT N. ENFIELD
OIL PROPERTIES
P. O. BOX 807
ROSWELL, NEW MEXICO 88201

May 17, 1968

432-8882

priv

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

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

Re: Docket 16-68, Cases 3751 and 3771

Dear Mr. Porter:

*wrong 1/2
for the ad -*

As a working and royalty interest owner in a portion of Section 29, Township 18 South, Range 33 East, please be advised that I support Pennzoil Company's application under Case No. 3751 for a Morrow Gas Unit composing the West half (W/2) of Section 29, and that I also support their request for a non-standard gas well location in the South Corbin Morrow Pool in said Section 29.

In addition, I support Pennzoil Company's application under Case No. 3771 for Special Pool Rules for the South Corbin Wolfcamp Pool including the provision for 160-acre spacing.

Yours very truly,

Robert N. Enfield
ROBERT N. ENFIELD

RNE/eh

MAIN OFFICE

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RHODES, McCALLISTER & DURRETT
ATTORNEYS AT LAW

JERRY P. RHODES
ORVILLE C. MCCALLISTER, JR.
J. M. DURRETT, JR.

500 PAN AMERICAN FREEWAY, NE
(CORNER ROMA AND INTERSTATE 25)
ALBUQUERQUE, NEW MEXICO 87106
TELEPHONE 243-0744

April 30, 1968

Case 3771

MAIN OFFICE 0

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New Mexico Oil Conservation Commission
Box 2088
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

Gentlemen:

I am enclosing an original and two copies of an Application on behalf of Pennzoil Company for special rules and regulations and an original and two copies of an Application on behalf of Pennzoil Company for a non-standard location or a non-standard unit. Will you please docket these Applications for the Examiner Hearing tentatively scheduled for May 22, 1968. We have previously filed an Application for a dual completion and tubing exception which has been docketed as Case No. 3751 and continued from the April 24, 1968, Examiner Hearing to the May 22, 1968, hearing. If it meets the commission's approval, we would like to present all three of these cases at the same time.

Very truly yours,

Rhodes, McCallister & Durrett

By *J. M. Durrett, Jr.*
J. M. Durrett, Jr.

JMD:ab
encls.

DOCKET MAILED

Date 5-9-68

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

Application of

PENNZOIL COMPANY

for Special Pool Rules, Lea
County, New Mexico

MAIN OFFICE

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Case No. 2771

APPLICATION

COMES NOW the applicant, Pennzoil Company, by
and through its attorneys, Rhodes, McCallister & Durrett, and
respectfully states:

I.

The applicant is the owner and operator of the Hudson
Federal 29 Well No. 1 located 660 feet from the north line and 1980
feet from the east line of Section 29, Township 18 South, Range 33
East, NMPM, Lea County, New Mexico.

II.

The subject well is completed in the South Corbin
Wolfcamp Oil Pool.

III.

The South Corbin Wolfcamp Oil Pool can be efficiently
and economically drained and developed on 160-acre spacing and pro-
duction units.

IV.

Well locations in the subject pool no nearer than 660 feet to the outer boundary of a proration unit and no nearer than 330 feet to any governmental quarter quarter section line will prevent waste and protect correlative rights.

V.

Special rules and regulations governing the subject pool establishing 160-acre spacing and proration units and well locations no nearer than 660 feet to the outer boundary of a proration unit and no nearer than 330 feet to any governmental quarter quarter section line will prevent waste and protect correlative rights.

WHEREFORE, the applicant requests the commission to enter its order establishing special rules and regulations for the South Corbin Wolfcamp Oil Pool as set out above.

Rhodes, McCallister & Durrett

By


J. M. Durrett, Jr.



1120 SIMAS BLVD. • P. O. BOX 1092 • PHONE 243-4491 • ALBUQUERQUE, NEW MEXICO

EXAMINER HEARING

**Application of Pennzoil Company
for special pool rules, Lea
County, New Mexico.**

Case No. 3771

TRANSCRIPT OF HEARING

MR. NUTTER: Case 3771.

MR. HATCH: Application of Pennzoil Company for special pool rules, Lea County, New Mexico.

MR. DURRETT: J. M. Durrett, appearing for the applicant. I have one witness, Mr. Charles Brown. May the record show that he has been sworn in the prior case and is still under oath in this case?

MR. NUTTER: The record will so show.

CHARLES A. BROWN

called as a witness, having been previously duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. DURRETT:

Q You are the same Mr. Brown that testified before the Commission in Case 3751?

A Yes.

Q Will you once again state your position with Pennzoil Company?

A I am production manager of the Western Division for Pennzoil United.

Q Briefly, what is it that Pennzoil is seeking in this case, Case 3771?

A We're seeking promulgation of special pool rules

for the South Corbin-Wolfcamp Oil Pool, Lea County, New Mexico.

Q Will those rules that you call for provide for the promulgation of special pool rules for the South Corbin-Wolfcamp Oil Pool, Lea County, New Mexico?

A They do.

(Whereupon, Exhibits 1 through 6 were marked for identification.)

Q Do you have a plat of the area, which I believe is Exhibit 1?

A Yes. Exhibit 1 is a plat of the area.

Q Please refer to Exhibit No. 1 and state what that represents.

A This is a plat showing the location of the three wells that have been completed as Wolfcamp producers in the South Corbin-Wolfcamp field. It shows the offsetting acreage, the names of the operators and also their addresses.

Q Which three wells is it, now, that are the Wolfcamp wells?

A They have all been designated in some way with red color. The first well in the field was the Aztec Federal "MA" No. 2 which is in the Southeast of Section 21. The second well was the Aztec Federal "PA" No. 1 which is in the

Southeast of Section 20, and then our Hudson Federal "29" No. 1, which is in the Northeast of 29.

Q And Pennzoil is the owner and operator of that well in Section 29, is that correct?

A Right.

Q What are the characteristics of the Wolfcamp?

A The Wolfcamp is a thick-bedded limestone having very low structural relief in our area. It contains several zones of porosity, the areal extent of which is yet to be determined.

Q Will you go now to your Exhibit No. 2, which is a cross section?

A Exhibit No. 2 is a cross section which was shown on the Exhibit 1 as A-A¹. It is a north-south cross section through Pennzoil's Hudson Federal "29" No. 1 and the Aztec Federal "PA" No. 1. It shows that the Wolfcamp is, in fact, a low relief type reservoir. It shows the intervals that were tested during the drilling phase of both wells. It shows the intervals that have been perforated within the Wolfcamp. I believe that's the pertinent information that's shown on it.

Q It shows drillstem test data, too?

A Right.

Q Now, what about vertical communication, have you been able to determine anything about that?

A We don't have sufficient knowledge of this reservoir to say to what extent vertical communication might exist between the various zones of porosity. It might be significant to point out that the initial shut-in pressure on drillstem test, one of the drillstem tests in our well was 221 pounds lower than the shut-in pressure on the Aztec "PA" No. 1.

Q So you would feel that this might show some communication?

A I think it might be indicative of some vertical communication.

Q You don't have any other information at this time which you would feel would show that?

A No, I do not.

Q Do you have an exhibit now that shows some reservoir data? I believe that's Exhibit 3.

A Let's see, Exhibit No. 3 presents such reservoir data as we have. The porosity and water saturation values were taken from the logs, the permeability was determined from drillstem test results, and the formation volume factor and the recovery factor are based on historical data for the Wolfcamp in this general area.

Q Did you run any core on your well?

A We did not.

Q Have any of the other wells been cored, the other two wells?

A Not to my knowledge.

Q Let's go now to your production data, which is Exhibit No. 4. What does that show?

A That is a tabulation of the production by months from each of the three wells in the field, in the pool. The first production was from the "MA", the Aztec Federal "MA" No. 1, which started in August of 1967.

Q You mean No. 2?

A I mean No. 2, excuse me. "MA" No. 2.

Q Would you say that these wells are inclined to decline fairly rapidly?

A There is some evidence of that based on the performance of the wells today.

Q And that exhibit shows a cumulative to May 1?

A Right, of 29,304 barrels.

Q Your well has only been on nineteen days as of the date of this?

A As of the preparation of this exhibit.

Q When was that, about?

A Well, that was nineteen days in the month, in April.

Q In April?

A Yes.

Q Let's go to the bottomhole pressure data, which is Exhibit No. 5.

A Exhibit No. 5 shows the bottomhole pressure data which is available on the wells in the field. The bulk of this data was derived from drillstem test results. There is some question that adequate time elapsed after the wells were shut-in prior to the pressure determination.

Q But this is the best information you have available?

A This is the best information available.

Q Do you have some economics which you have calculated?

A Exhibit 6 is intended to show the economics for a given 160-acre tract in the South Corbin-Wolfcamp Pool. We have attempted to show the economics in regard, reflecting different well densities that might possibly be utilized in developing the remainder of the pool. The higher well density would be expected to effect a somewhat greater recovery from the tract, and on our exhibit we show that for 40-acre spacing our recoverable oil would be greater.

Q You show a net loss on 40 acres --

A Yes, based on volumetric calculation, the recoverable

oil on a 160-acre tract developed on 40-acre spacing would result in a net loss of \$328,600.00. If that same tract were developed on 80-acre spacing, the net profit would be very modest. Whereas one well on 160 acres would result in somewhat better net profit.

Q Have you calculated a profit to investment ratio, it doesn't show on the exhibit, did you calculate those figures?

A I do have something for that. On the 40-acre spacing the figure would be 41.1 percent loss. For 80-acre spacing we could expect a 16 percent profit, and for 160-acre spacing, 118.9 percent profit.

Q So that would give you a ratio on the 80 --

A Two spacings, that would result in a profit; on the 80 acres, the ratio would be 1.6 to one and for 160, 1.189 to one.

Q Have you contacted the other operators in the pool concerning this proposal for 160-acre spacing?

A We have.

Q What are the results of that?

A All are in favor of the suggested pool rules.

MR. HATCH: Here is a letter from Robert Enfield in support and a letter from Mobil in support of the application.

There's one from Aztec over there.

MR. NUTTER: Aztec doesn't make any mention of the pool rules. Mobil's letter doesn't say anything about the pool rules. Enfield's is a combination letter. Hudson and Hudson say nothing of the pool rules, nor does Aztec, nor Atlantic.

MR. DURRETT: We do have additional letters, we will furnish them to the Commission.

MR. HATCH: We do have the one from Robert Enfield and Mobil.

Q (By Mr. Durrett) You have contacted all the operators and they have all stated they would support you, is that correct?

A Yes.

Q I realize that you don't have a great deal of information available about this pool, but let me ask you if it is your opinion, based on the information that you do have available to you, that one well will efficiently and economically drain and develop 160 acres in this pool?

A I do.

Q You feel that 160-acre spacing would be the most orderly development for the pool?

A I do.

MR. DURRETT: If the Examiner please, I would at this time move the introduction of Exhibits 1 through 6 and that will conclude my direct examination.

MR. NUTTER: Applicant's Exhibits 1 through 6 will be admitted in evidence.

(Whereupon, Exhibits 1 through 6 were offered and admitted in evidence.)

CROSS EXAMINATION

BY MR. NUTTER:

Q What is the story here on the two Aztec wells, they have declined drastically in their productivity? Are the wells on artificial lift, do you know?

A I am not quite sure about that Federal "MA" No. 2. I know that the "PA" No. 1 is still producing by flowing.

Q And it has declined from 6400 barrels last November, I guess, it is down to 474 barrels in April, but they haven't put artificial lift on there yet, so you don't know what the effect would be if they pumped these wells, do you?

A No, sir, I don't.

Q Now, your well came in, in the previous hearing you said three hundred some --

A 340 barrels, as I recall.

Q Have you had a recent test on the well?

A We don't have anything that reflects capacity of the well. We have been producing it.

Q Do you know if it is making as much oil as it was making, or not?

A Well,--

Q If it has declined yet?

A We have seen some decline in bottomhole pressure but we've seen very little decline in our producing rate.

Q Well, I was just wondering, by comparing your Exhibit No. 4 with your Exhibit No. 6, if maybe the economics that you show here for 40, 80 and 160 might be pretty optimistic even for any spacing here.

A Well, we would certainly agree that that interpretation might be made. We feel, however, that we lack sufficient knowledge of this reservoir, really, to evaluate it.

Q And from the oil that has been produced here from these Aztec wells, compared with the porosity, the feet of net pay, recovery factor, the formation volume factor and so forth, you don't have a barrels per acre for it, it would appear to me that maybe these Aztec wells are not draining ten acres, much less 160. It looks like they've almost disappeared from the production scene.

A It's true that they have experienced some decline,

certainly that "PA" No. 1 from natural flow, as you pointed out awhile ago, we don't know what it might do on artificial lift.

Q Do you know if they have plans to put pumps on these wells or not?

A I know they have considered it. Whether or not they have made a definite plan to install pumps, I can't say.

Q I note that you do predict this is a solution gas drive. Do you know if their wells are making water?

A Our well is not making any water and as far as I know neither are theirs.

Q Your bottomhole pressure, you have a bottomhole pressure test May the 16th, just a few days ago, and your bottomhole pressure had declined from 3600 pounds in January down to 2400 pounds in May, correct?

A Yes, sir.

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

(Witness excused.)

MR. NUTTER: Mr. Durrett, what are you proposing, pool rules similar to those that the Commission promulgated for the Strawn Pool in this area?

MR. DURRETT: Yes. I had meant to mention that.

MR. NUTTER: I think you did in your application.

MR. DUKRETT: Pool rules similar to the one for the Strawn. I think they had a special GOR in there which we feel wouldn't be necessary in this situation, and a no-flare order which I don't think would be applicable, but otherwise, it would be the same rules.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3771? Mr. Motter.

MR. MOTTER: Yes. Gene Motter. We have an undeveloped 80 acres which is a Northeast diagonal to the proposed 160-acre spacing. We support Pennzoil in their application and would like to make a comment on hearing their testimony.

It appears that this is probably a salvage operation to date. More evidence may come forward; as we see it, I don't see how for drilling out there these deeper zones, gas and so on, that we can expect any closer spacing than 160 for the Wolfcamp.

MR. NUTTER: Does Cities Service have any plans?

MR. MOTTER: We have it under study right now and will have an answer in sixty days.

MR. NUTTER: We will take the case under advisement.


I N D E X

<u>WITNESS</u>		<u>PAGE</u>
CHARLES A. BROWN		
Direct Examination by Mr. Durrett		2
Cross Examination by Mr. Nutter		10
 <u>EXHIBIT</u>	 <u>MARKED</u>	 <u>OFFERED AND ADMITTED</u>
Exhibits No. 1 through 6	3	10

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.


Witness my Hand and Seal this 12th day of June, 1968.


 NOTARY PUBLIC

My Commission Expires:

June 19, 1971.

I do hereby certify that the foregoing is a complete record of the proceedings in the Oil Conservation Commission of Case No. 3771, heard on 5/22, 1968.


 New Mexico Oil Conservation Commission

RESERVOIR DATA - WOLFCAMP FORMATION
PENNZOIL - HUDSON FEDERAL "29" NO. 1
SOUTH CORBIN WOLFCAMP FIELD
LEA COUNTY, NEW MEXICO

Gross producing interval	10,900' - 11,006'
Net pay	50'
Porosity	5.85%
Permeability	4.6 md.
Water saturation	35%
Bottom hole pressure - initial	4,280 psi
Oil gravity	42
Formation volume factor	1.80 RB/STB
Gas - oil ratio	1,560
Recovery factor	17%
Reservoir energy	Solution-gas drive

RECORD EXAMINER'S OFFICE	
DIVISION	
App'l.	NO. 1-5
3771	

Exhibit 3

PRODUCTION DATA
SOUTH CORBIN WOLFCAMP FIELD
LEA COUNTY, NEW MEXICO

AZTEC
FEDERAL "MA" NO. 2

AZTEC
FEDERAL "PA" NO. 1

PENNZOIL
HUDSON FEDERAL "29" NO. 1

August-1967	2284		
September	1781		
October	147		
November	0	6410	
December	1616	5110	
January-1968	982	3212	
February	756	1714	
March	542	636	
April	494	474	3146 (19 days)
Totals	8,602	17,556	3146

Cumulative to May 1, 1968 is 29,304 barrels

7ed

PRODUCTION DATA
SOUTH CORDIN WOLFCAMP FIELD
LEA COUNTY, NEW MEXICO

AZTEC
FEDERAL "MA" NO. 2

AZTEC
FEDERAL "PA" NO. 1

PENNZOIL
HUDSON FEDERAL "29" NO. 1

August-1967

2284

September

1781

October

147

November

0

December

1616

January-1968

982

February

756

March

542

April

494

Totals

8,602

6410

5110

3212

1714

636

474

17,556

3146 (19 days)

3146

Cumulative to May 1, 1968 is 29,304 barrels

Fed

flowing

gas lift

Exhibit 4

BOTTOM HOLE PRESSURE DATA
SOUTH CORBIN WOLFCAMP FIELD
LEA COUNTY, NEW MEXICO

AZTEC
FEDERAL "MA" NO. 2

DST - August 1967

I.S.I.P. 4419 psi
F.S.I.P. 4259 psi

AZTEC
FEDERAL "PA" NO. 1

DST - October 1967

I.S.I.P. 4462 psi
F.S.I.P. 4328 psi

PENNZOIL
HUDSON FEDERAL "29" NO. 1

DST - January 18, 1968

I.S.I.P. - 4,241 psi
F.S.I.P. - 3,959 psi

BHP January 1, 1968
72 hours - 1439 psi

BHP April 8, 1968
72 hours - 3,495 psi

BHP January 3, 1968
120 hours - 1,519 psi

BHP May 16, 1968
72 hours - 2,429 psi

ECONOMICS FOR 160 ACRE TRACT

SOUTH CORBIN FIELD - WOLF CAMP FORMATION

LEA COUNTY, NEW MEXICO

	<u>NO. OF WELLS</u>	<u>RECOVERABLE OIL *</u>	<u>NET REVENUE **</u>	<u>DEVEL. COSTS \$200,000 P/WELL</u>	<u>OPER. COSTS 5 YR. LIFE***</u>	<u>TOTAL EXPENSE</u>	<u>NET PROFIT</u>
40 Ac. Spacing	4	223,200 Bbls	\$571,400	\$800,000	\$100,000	\$900,000	(328,600)
80 Ac. Spacing	2	200,900 Bbls	\$514,300	\$400,000	\$50,000	\$450,000	64,300
160 Ac. Spacing	1	180,800 Bbls	\$462,800	\$200,000	\$25,000	\$225,000	273,800

" Volumetric calculation based on best available data.

* \$2.56/Bbl. after royalty and taxes.

** \$5,000/Well per year.