

CASE 1776: Application of CONTINENTAL  
for exception to over-production shut  
-in provisions of Order R-520, amended  
by Order R-967, for 9 wells in Jalmat

Case No.

1776

Application, Transcript,  
Small Exhibits, Etc.

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. 1476  
Order No. R-1516

APPLICATION OF CONTINENTAL OIL  
COMPANY FOR AN ORDER PERMITTING  
NINE OVERPRODUCED GAS WELLS IN  
THE JALMAT GAS POOL, LEA COUNTY,  
NEW MEXICO TO COMPENSATE FOR  
SUCH OVERPRODUCTION AT A LESSER  
RATE THAN COMPLETE SHUT-IN IN  
EXCEPTION TO ORDERS NOS. R-526  
AND R-967

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on September 30, 1959, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

Now, on this 14 day of October, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(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 following-described gas wells in the Jalmat Gas Pool, Lea County, New Mexico, are more than six times overproduced and are therefore subject to complete shut-in under the provisions of orders Nos. R-526 and R-967:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NEPA  
Meyer A-29 Well No. 1, Unit C, Section 29  
Meyer B-28 Well No. 1, Unit E, Section 28  
State A-32 Well No. 4, Unit F, Section 32

-2-

Case No. 1770  
Order No. A-1510

TOWNSHIP 23 SOUTH, RANGE 36 EAST, N.M.P.M.  
Danciger A-8 well No. 2, Unit F, Section 8  
Stevens A-34 well No. 1, Unit E, Section 34

TOWNSHIP 24 SOUTH, RANGE 37 EAST, N.M.P.M.  
Jack A-26 well No. 4, Unit G, Section 26  
Jack A-29 well No. 5, Unit H, Section 29

TOWNSHIP 25 SOUTH, RANGE 38 EAST, N.M.P.M.  
Wells B-1 well No. 1, Unit A, Section 1  
Ascarate B-24 well No. 1, Unit J, Section 24

(3) That due to severe liquid problems, the applicant seeks an order permitting the overproduction to be made up at a lesser rate than complete shut-in in order to preclude permanent injury to the subject wells.

(4) That the applicant should be permitted to produce each of the subject wells at a monthly rate equal to fifty percent of the well's current monthly allowable or at a monthly rate equal to fifty percent of the well's average monthly allowable for the preceding six-month proration period, whichever is greater.

(5) That the curtailed rate of production to compensate for overproduction as hereinabove prescribed should be adequate to prevent permanent injury to the well or producing formation.

(6) That an administrative procedure should be established whereby the Secretary-Director of the Commission may authorize the operator to compensate for overproduction at a lesser rate than that provided in this order upon a satisfactory showing that the rate prescribed herein would result in permanent damage to the well and/or producing formation.

IT IS THEREFORE ORDERED:

(1) That the operator be and the same is hereby authorized to compensate for the overproduction of the following-described gas wells in the Jalmat Gas Pool, Lea County, New Mexico, by producing each of them at a monthly rate equal to fifty percent of the well's current monthly allowable or at a monthly rate equal to fifty percent of the well's average monthly allowable for the preceding six-month proration period, whichever is greater:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, N.M.P.M.  
Meyer A-29 well No. 1, Unit G, Section 29  
Meyer B-28 well No. 1, Unit E, Section 28  
State A-32 well No. 4, Unit F, Section 32

-3-

Case No. 1776  
Order No. R-151

TOWNSHIP 23 SOUTH, RANGE 36 EAST, N.M.P.  
Danciger A-8 Well No. 2, Unit F, Section 8  
Stevens A-34 Well No. 1, Unit E, Section 34

TOWNSHIP 24 SOUTH, RANGE 37 EAST, N.M.P.  
Jack A-28 Well No. 4, Unit G, Section 28  
Jack A-29 Well No. 3, Unit H, Section 29

TOWNSHIP 25 SOUTH, RANGE 36 EAST, N.M.P.  
Wells B-1 Well No. 1, Unit A, Section 1  
Ascarate D-24 Well No. 1, Unit J, Section 24

PROVIDED HOWEVER, That an administrative procedure be and the same is hereby established wherein the Secretary-Director is authorized to set the percentage of curtailment at a lesser rate than that herein prescribed upon a satisfactory showing by the operator that the rate for compensating for overproduction as set forth in this order would result in permanent damage to the well and/or producing formation.

(2) That the effective date of this order is November 1, 1959.

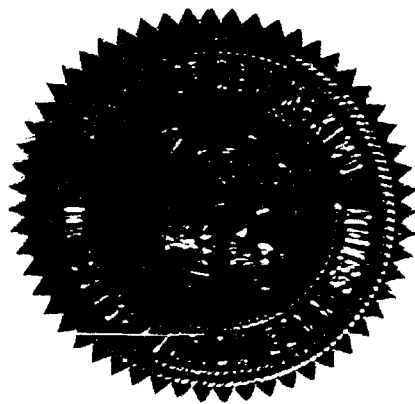
DONE at Santa Fe, New Mexico on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*John Burroughs*  
JOHN BURROUGHS, Chairman

*Murray E. Lorgan*  
MURRAY E. LORGAN, Member

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



lcr/



# CONTINENTAL OIL COMPANY

825 PETROLEUM BUILDING  
ROSWELL, NEW MEXICO

WM. A. MEAD  
DIVISION SUPERINTENDENT  
OF PRODUCTION  
NEW MEXICO DIVISION

September 15, 1959

New Mexico Oil Conservation Commission  
Mr. A. E. Carter, Jr., Secretary-Director  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: Continental Oil Company's application for Exception to Rule 10-A-520 & R-588 of Order No. R-157 for nine over-produced wells in the Jalmat Gas Pool, Lea County, New Mexico

We are forwarding three copies of Continental Oil Company's subject application as per Mr. San Hutter's telephone conversation with Mr. J. A. Meen, and the confirming telegram sent September 9, 1959. It is our understanding that this matter will be set for hearing September 30, 1959, as per the above-mentioned telephone conversation.

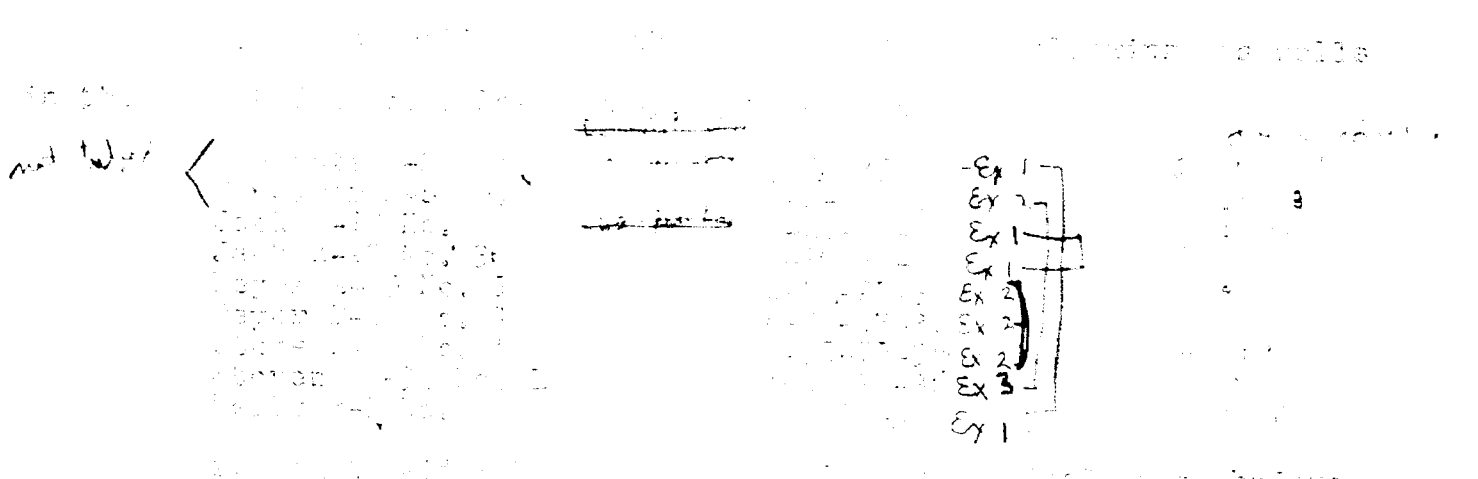
The Jalmat Gas Pool wells and their locations are as follows:

| Well                | Location                               |
|---------------------|----------------------------------------|
| Ascarate D-24 No. 1 | 1980' FS&EL, Sec. 24-25S-36E           |
| Danciger A-8 No. 2  | 650' FS&EL, Sec. 8-23S-36E             |
| Jack A-20 No. 4     | 1980' F&EL, Sec. 20-24S-37E            |
| Jack A-23 No. 3     | 1970' FH, 300' FEL, Sec. 29-24S-37E    |
| Meyer A-23 No. 1    | 660' FS & 1980' FEL, Sec. 29-22S-36E   |
| Meyer B-28 No. 1    | 2310' F&EL, 330' F&EL, Sec. 29-22S-36E |
| State A-32 No. 4    | 1980' F&EL, Sec. 32-22S-36E            |
| Stevens A-34 No. 1  | 1980' FH & 660' F&EL, Sec. 34-23S-36E  |
| Wells B-1 No. 1     | 660' F&EL, Sec. 1-25S-36E              |

Yours very truly,

WAM:ER  
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DOCKET: EXAMINER HEARINGS SEPTEMBER 30, 1969

Oil Conservation Commission - 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico

The following cases will be heard before Daniel S. Nutter, Examiner, or A. L. Porter, Jr., Secretary-Director.

CONTINUED CASE

CASE 1739: Application of Shell Oil Company for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Henshaw Deep Unit Agreement comprising 4824 acres, more or less, of Federal and State lands in Township 16 South, Ranges 30 and 31 East, Eddy County, New Mexico.

NEW CASES

CASE 1760: Application of The Atlantic Refining Company for an automatic custody transfer system and for permission to produce more than 16 wells into a common tank battery. Applicant, in the above-styled cause, seeks an order authorizing it to install an automatic custody transfer system to handle the production from all Horseshoe-Gallup oil wells on its Navajo "B" Lease comprising certain acreage in Township 31 North, Range 16 West, San Juan County, New Mexico.

CASE 1761: Application of Stanton Oil Company, Ltd., for a pilot water flood project. Applicant, in the above-styled cause, seeks an order authorizing it to institute a pilot water flood project in the Turkey Track Pool in Eddy County, New Mexico, by the injection of water into the Queen formation through four wells located in Section 34, Township 18 South, Range 29 East.

CASE 1762: Application of Newmont Oil Company for an unorthodox water injection well location. Applicant, in the above-styled cause, seeks an order authorizing it to reopen and utilize for water injection a well located on an unorthodox location at a point 1620 feet from the North line and 1020 feet from the West line of Section 32, Township 16 South, Range 31 East, Square Lake Pool, Eddy County, New Mexico.

CASE 1763: Application of Southwestern Hydrocarbon Company for an order abolishing the Sawyer-San Andres and South Sawyer-San Andres Oil Pools in Lea County, New Mexico, and creating the Sawyer-San Andres Gas Pool; or in the alternative for an order extending the horizontal limits of the South Sawyer-San Andres Oil Pool to include the NE/4 of Section 6, the N/2 of Section 5 and the NW/4 of Section 4, Township 10 South, Range 38 East, Lea County, New Mexico, and removing all gas-oil ratio limitations for wells in said pool; or in the alternative for an order combining the Sawyer-San Andres and the South Sawyer-San Andres Oil Pools, as well as the intervening acreage, and removing all gas-oil ratio limitations for such pool.

CASE 1764: Application of Standard Oil Company of Texas for an unorthodox gas well location. Applicant, in the above-styled cause, seeks an order authorizing an unorthodox gas well location in the Atoka-Pennsylvanian Gas Pool, at a point 1850 feet from the South line and 1650 feet from the East line of Section 14, Township 18 South, Range 26 East, Eddy County, New Mexico.

- CASE 1765: Application of The Ohio Oil Company for a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water into the Lower San Andres formation through its State B-4286 "A" Well No. 2, located in Unit F, Section 2, Township 17 South, Range 36 East, Lea County, New Mexico. The proposed injection interval is from 5725 feet to 5968 feet.
- CASE 1766: Application of Northwest Production Corporation for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its "S" Well No. 16-2, located in the SW/4 SW/4 of Section 2, Township 24 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to produce oil from an undesignated Gallup oil pool and to produce oil from an undesignated Dakota oil pool through parallel strings of tubing.
- CASE 1767: Application of El Paso Natural Gas Products Company for permission to produce more than 16 wells in a common tank battery. Applicant, in the above-styled cause, seeks an order authorizing the production of a maximum of 35 wells in the Horseshoe-Gallup Oil Pool into a common tank battery. Said wells are located on applicant's Horseshoe Ute Lease comprising portions of Sections 27, 28, 33 and 34, Township 31 North, Range 16 West, San Juan County, New Mexico.
- CASE 1768: Application of T. F. Hodge for the rededication of acreage assigned to three oil wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order rededicating the acreage assigned to three oil wells on his Mary E. Willis Lease, Section 33, Township 26 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico. Applicant proposes to dedicate 40 acres to each of the three wells, said 40-acre units not to comprise a quarter-quarter section or legal subdivision.
- CASE 1769: Application of Pan American Petroleum Corporation for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Northeast Hogback Unit Agreement, comprising 10,572 acres, more or less, in Township 30 North, Range 16 West, San Juan County, New Mexico.
- CASE 1770: Application of Pan American Petroleum Corporation for approval of a lease automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing the automatic custody transfer of oil produced from its Lois Wengerd Lease in Sections 23 and 24, Township 12 South, Range 37 East, Gladiola-Devonian Pool, Lea County, New Mexico.
- CASE 1771: Application of Pan American Petroleum Corporation for approval of a lease automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing the automatic custody transfer of oil produced from its USA Malco Refinery "F" Lease, Section 1, Township 18 South, Range 27 East, Empire-Abo Pool, Eddy County, New Mexico.
- CASE 1772: Application of Pan American Petroleum Corporation for approval of an automatic custody transfer system for four state leases in the Empire-Abo Pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order amending Order No. R-1292 to provide for automatic custody transfer of oil commingled thereunder.

- CASE 1773: Application of Pan American Petroleum Corporation for approval of two automatic custody transfer systems for seven federal leases in the Empire-Abo Pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order amending Order No. R-1399 to provide for automatic custody transfer of oil produced into the two commingled tank batteries authorized therein.
- CASE 1774: Application of Continental Oil Company for a non-standard gas unit. Applicant, in the above-styled cause, seeks the establishment of a 160-acre non-standard gas unit in an undesignated Tubb gas pool consisting of the E/2 NW/4 and the W/2 NE/4 of Section 15, Township 20 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Britt B-15 No. 10 Well, located in the SW/4 NE/4 of said Section 15.
- CASE 1775: Application of Continental Oil Company for a non-standard gas unit. Applicant, in the above-styled cause, seeks the establishment of a 160-acre non-standard gas unit in an undesignated Tubb gas pool consisting of the E/2 SE/4 of Section 15 and the W/2 SW/4 of Section 14, all in Township 20 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's SEMU Well No. 70, located in the NW/4 SW/4 of said Section 15.
- CASE 1776: Application of Continental Oil Company for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for nine wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing the following-described wells in the Jalmat Gas Pool to compensate for their overproduced status without being completely shut-in in order to prevent possible waste:  
Ascarate D-24 Well No. 1, Unit J, Section 24, T-25-S, R-36-E, Danciger A-8 Well No. 2, Unit P, Section 8, T-23-S, R-36-E, Jack A-20 Well No. 4, Unit G, Section 20, T-24-S, R-37-E, Jack A-29 Well No. 3, Unit H, Section 29, T-24-S, R-37-E, Meyer A-29 Well No. 1, Unit O, Section 29, T-22-S, R-36-E, Meyer B-28 Well No. 1, Unit E, Section 28, T-22-S, R-36-E, State A-32 Well No. 4, Unit F, Section 32, T-22-S, R-36-E, Stevens A-34 Well No. 1, Unit E, Section 34, T-23-S, R-36-E, Wells B-1 Well No. 1, Unit A, Section 1, T-25-S, R-36-E, all in Lea County, New Mexico.
- CASE 1777: Application of El Paso Natural Gas Company for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for two wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing its E. J. Wells Lease Well No. 13, Unit L, Section 5, and its Wells B-4 Lease Well No. 1, Unit D, Section 4, both in Township 25 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, to compensate for their overproduced status without being completely shut-in in order to prevent possible waste.
- CASE 1778: Application of Olsen Oils, Inc., for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for four wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing the following-described wells in the Jalmat Gas Pool to compensate for their overproduced status without being completely shut-in in order to prevent possible waste:  
Cooper B Well No. 2, NE/4 NW/4 of Section 14, T-24-S, R-36-E, Myers B Well No. 1, SE/4 NW/4 of Section 13, T-24-S, R-36-E, S. R. Cooper Well No. 1, SE/4 NE/4 of Section 23, T-24-S, R-36-E, Winningham Well No. 3, NE/4 SE/4 of Section 30, T-25-S, R-37-E, all in Lea County, New Mexico.

- CASE 1779: Application of Jal Oil Company for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for four wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing the following-described wells in the Jalmat Gas Pool to compensate for their overproduced status without being completely shut-in in order to prevent possible waste:
- Legal Well No. 2, NE/4 SE/4 of Section 21,  
Dyer Well No. 3, SE/4 NE/4 of Section 31,  
Jenkins Well No. 2, NE/4 SW/4 of Section 29,  
Ropollo Well No. 1, SW/4 NW/4 of Section 28,  
all in Township 25 South, Range 37 East, Lea County, New Mexico.
- CASE 1780: Application of Husky Oil Company for an exception to the overproduction shut-in provisions of Order R-520, as amended by Order R-967, for one well in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order allowing its Montecito Woolworth Well No. 2, Unit M, Section 33, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, to compensate for its overproduced status without being completely shut-in in order to prevent possible waste.
- CASE 1781: Application of Texaco, Inc. for permission to continue producing an over-produced Jalmat gas well at a lesser rate. Applicant, in the above-styled cause, seeks an order authorizing it to produce its C. C. Fristoe (b) NCT-4 Well No. 2, Unit M, Section 31, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, at a maximum rate of 2500 MCF per month for lease use until over production has been compensated for.

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

# WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL=Day Letter

NL=Night Letter

LT=International Letter Telegram

1220  
(R 11-54)

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination.

LA107 SSD146

L RWA059 LONG=ROSWELL NMEX 9 1116 AMM=

DAN NUTTER=

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE NMEX=

THE FOLLOWING CONTINENTAL OIL COMPANY OPERATED JALMAT WELLS AND LOCATIONS ARE FURNISHED PER OUR CONVERSATION TODAY FOR INCLUSION IN THE GROUP OF WELLS TO BE CONSIDERED AT THE HEARING BEFORE NMOCC SEPT 30, 1959, REGARDING RECLASSIFICATION AS NON-MARGINAL CERTAIN JALMAT GAS WELLS.

9 ASCARATE D-24 NO. 1 1980V FS & EL SEC. 24-25S-36E=

9 DANCIGER A-8 NO. 2 660V FS & EL SEC. 8-23S-36E=

9 JACK A-20 NO. 4 1980V FN & EL SEC. 20-24S-37E=

9 JACK A-29 NO. 3 1970V FNL & 330V FEL SEC. 29-24S-37E=

9 MEYER A-29 NO. 1 660V FSL & 1980V FEL SEC. 29-22S-36E=

9 MEYER B-28 NO. 1 2310V FNL & 330V FWL SEC. 28-22S-36E=

9 STATE A-32 NO. 4 1980V FN & WL SEC. 32-22S-36E=

9 STEVENS A-34 NO. 1 1980V FNL & 660V FWL SEC. 34-23S-36E=

9 WELLS B-1 NO. 1 660V FN & EL SEC. 1-25S-36E=

9 A LETTER AND A FORMAL APPLICATION WILL FOLLOW=

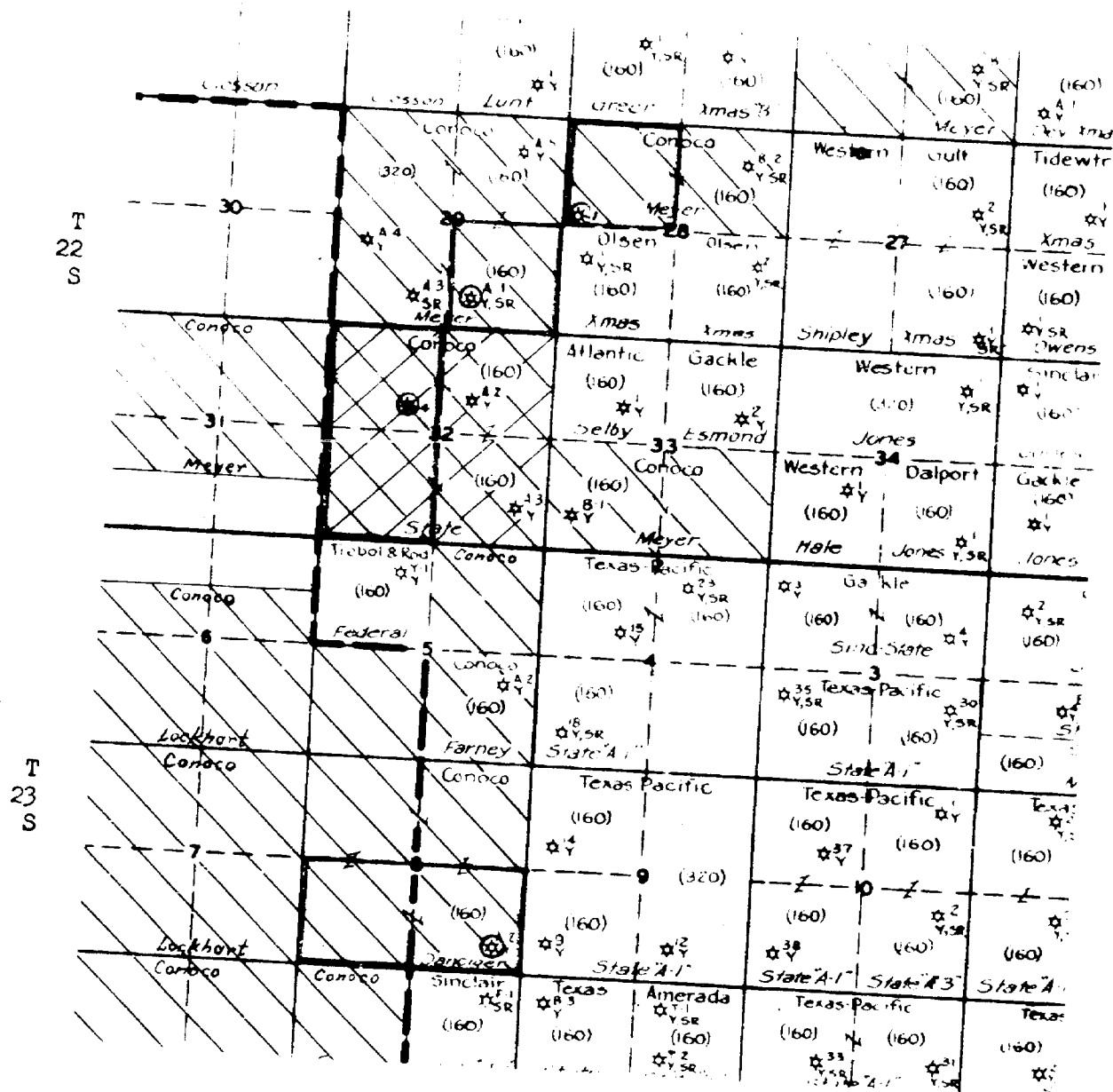
J A QUEEN CONTINENTAL OIL CO==

*Rocky  
Hauled 9-15-59  
JH*

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE



R-36-E



CONTINENTAL OIL COMPANY  
JALMAT POOL AREA

Approved Proration Unit —

Wells Re-classified C

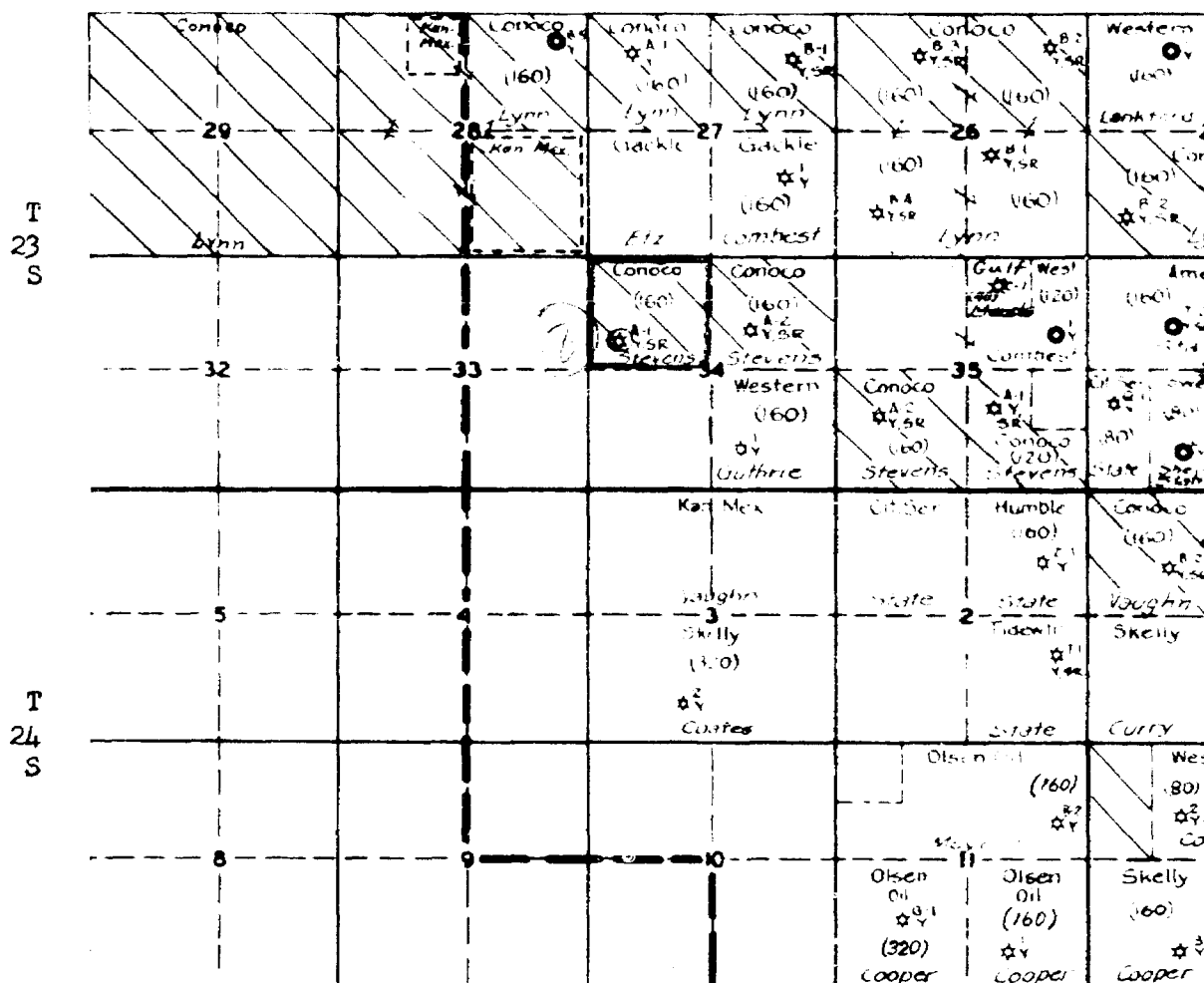
Scale 1" = 4000'

Exhibit No. 2

Case No. 1776

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 3  
CASE NO. 1776

R-36-E



CONTINENTAL OIL COMPANY  
JALMAT POOL  
STEVENS A-34 AREA

Scale 1" = 4000'

Approved Proration Unit —

Exhibit No. 3

Stevens A-34 No. 1 ○

Case No. 1776

## SUBSURFACE PRESSURE SURVEY

CONTINENTAL OIL COMPANY Ascarate D-24

PRODUCTION &amp; DRILLING DEPT.

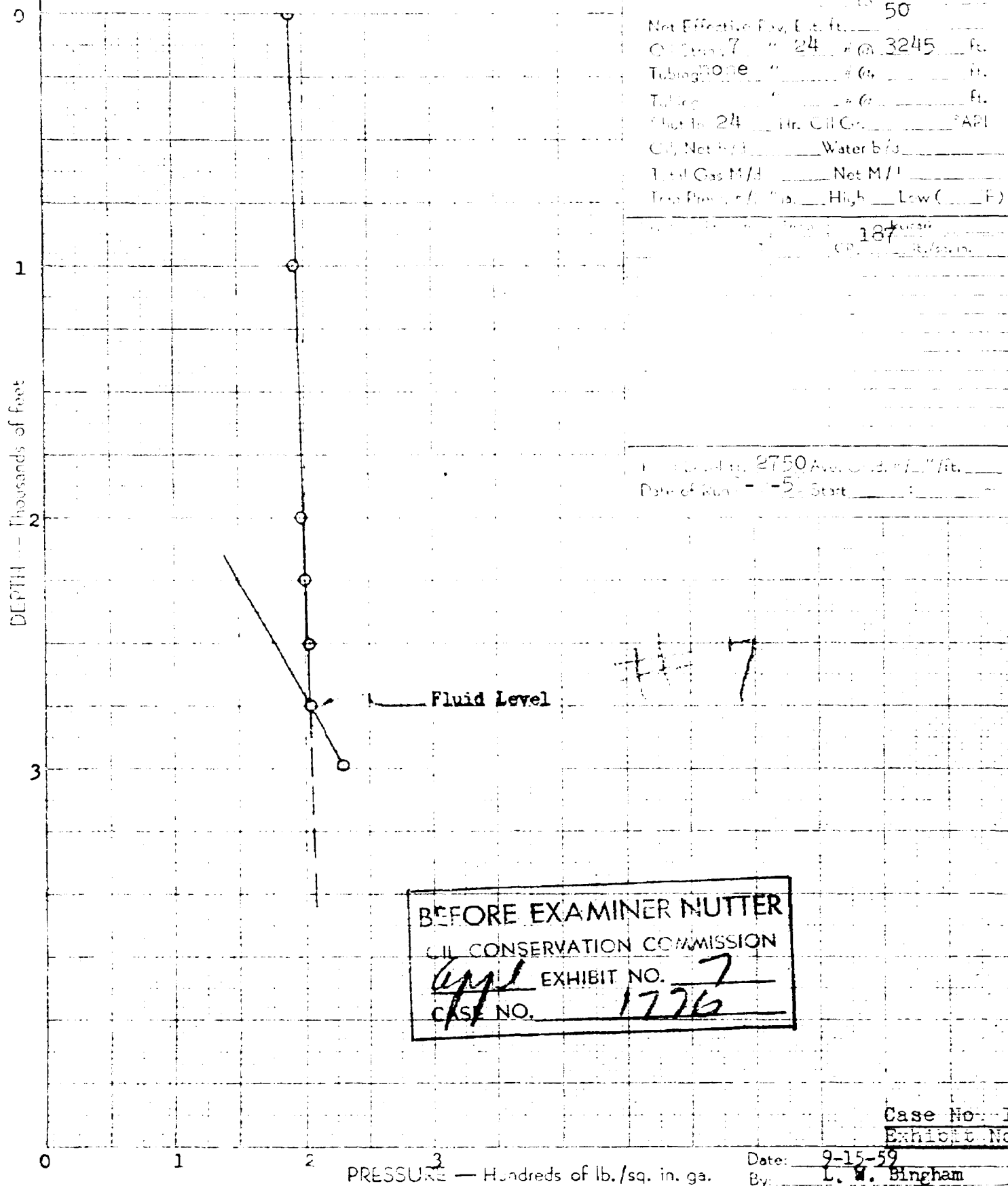
County Lea Field Jalmat Gas  
 State New Mexico Zone Yates & Seven Rivers  
 Elev., ft. \_\_\_\_\_ Well No. 1

Depth ft. 3245 Total 3000 Plug  
 Zone Open, ft. 2940 0 2990

Net Effective Pay, E.A. ft. 50  
 Oil Grains 7 " 24 " @ 3245 ft.  
 Tubing 3000 " " @ \_\_\_\_\_ ft.  
 Tubing \_\_\_\_\_ " " @ \_\_\_\_\_ ft.  
 Choke 24 Hr. Oil Gr. \_\_\_\_\_ API  
 Oil Net bbl \_\_\_\_\_ Water bbl \_\_\_\_\_  
 Total Gas M/d \_\_\_\_\_ Net M/d \_\_\_\_\_  
 Test Pressure (psi) \_\_\_\_\_ High \_\_\_\_\_ Low (\_\_\_\_\_ F)

\_\_\_\_\_ 187 \_\_\_\_\_  
 \_\_\_\_\_ Bbl/day

\_\_\_\_\_ 2750 Ave. Oil Gr. \_\_\_\_\_ ft.  
 Date of Run 9-5 Start \_\_\_\_\_



U.S. COURT OF APPEALS  
FOR THE FIRST CIRCUIT  
SAN FRANCISCO, CALIFORNIA

IN THE MATTER OF:

CASE NO.

TRANSCRIPT OF HEARING

SEPTEMBER 30, 1959

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
SEPTEMBER 30, 1959

IN THE MATTER OF:

CASE 1776 Application of Continental Oil Company for an ex-  
ception to the overproduction shut-in provisions :  
of Order R-520, as amended by Order R-967, for :  
nine wells in the Jalmat Gas Pool. Applicant, in :  
the above-styled cause, seeks an order allowing :  
the following-described wells in the Jalmat Gas :  
Pool to compensate for their overproduced status :  
without being completely shut-in in order to pre- :  
vent possible waste: :  
Ascarate D-24 Well No. 1, Unit J, Section 24, :  
T-25-S, R-36-E, Danciger A-8 Well No. 2, Unit P, :  
Section 8, T-23-S, R-36-E, Jack A-20 Well No. 4, :  
Unit G, Section 20, T-24-S, R-37-E, Jack A-29 :  
Well No. 3, Unit H, Section 29, T-24-S, R-37-E, :  
Meyer A-29 Well No. 1, Unit O, Section 29, T-22-S, :  
R-36-E, Meyer B-28 Well No. 1, Unit E, Section 28, :  
T-22-S, R-36-E, State A-32 Well No. 4, Unit F, :  
Section 32, T-22-S, R-36-E, Stevens A-34 Well No. :  
1, Unit E, Section 34, T-23-S, R-36-E, Wells B-1 :  
Well No. 1, Unit A, Section 1, T-25-S, R-36-E, all :  
in Lea County, New Mexico. :

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T      O F      P R O C E E D I N G S

MR. NUTTER: We will take next Case 1776.

MR. PAYNE: Case 1776. Application of Continental  
Oil Company for an exception to the overproduction shut-in provi-  
sions of Order R-520, as amended by Order R-967, for nine wells in  
the Jalmat Gas Pool.

MR. KELLAHIN: If the Commission please, we would like the record to show the same appearance as in the preceding case, and ask that the record show that the witness has been sworn.

MR. NUTTER: The record will show that the witness has been sworn in this case.

JOHN A. QUEEN,

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

DIRECT EXAMINATION

By MR. KELLAHIN:

Q Are you the same Mr. Queen who testified in the preceding cases?

A I am.

Q Mr. Queen, are you familiar with the application in Case 1776?

A I am.

Q Would you state briefly what is proposed in this application?

A If I may, just a minute, I have five Exhibits. I believe it might be better -- I have more than five Exhibits -- to pass out the Exhibits at this time, if that is all right with the Commission.

Q Would you state, first, briefly what is proposed in this application?

A This application, Case No. 1776, is involved due to

The fact that certain marginal wells are classified down on Joliet Rules as non-marginal wells in ability tests run during various times in 1944 and 1945 have been changed and reclassified to non-marginal wells because their production was greater than that would have been shown to test non-marginal well. Continental Oil Company is asking for exception to Joliet Rules No. 10 of Order 4-800 as awarded by Order 4-840, for nine oil lease wells operated by Continental Oil Company and owned by the New Mexico Federal Unit, so that they can be produced at a rate so that the production can be made up at a rate less than the shut-in production.

Now, referring to what has been written as Exhibit No. 1, will you discuss that Exhibit, please?

Exhibit No. 1 is a plat showing the location of some of these wells are located. The wells are circled in red, and the approved production unit all around to each well is outlined in red. As shown, these wells are located as follows:

The Accurate 4-44 No. 1, located 1470 feet from the North and East lines of Section 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. The Jack A-20 No. 4 located 1900 feet from the North and East lines of Section 20, 24, 37. The Jack A-20 No. 3 located 1900 feet from the North line and 330 feet from the East line of Section 20, 24, 37. The Wells 8-1 located 330 feet from the North and East lines of Section 1, 25, 36.

Now, referring to what has been written as Exhibit No. 2, will you discuss that Exhibit, please?

A Exhibit No. 2 is a plat showing the area in which five additional wells are located. These wells are circled in red and the approved proration unit allocated to each well is outlined in red -- I beg your pardon -- four wells. The Danciger A-5 No. 2 located 660 feet from the South and East lines of Section 3, 23, 36. Meyer A-28 No. 1 located 660 feet from the South and 930 feet from the East line, Section 20, 22, 36. The Meyer B-23 No. 1 located 2310 feet from the North line and 330 feet from the West line of Section 20, 22, 36. And the fourth well, the State A-32 No. 4 located 1930 feet from the North line and the West line of Section 32, 22, 36.

Q Now, with reference to what has been marked as Exhibit No. 3, would you discuss the information shown on that Exhibit?

A Exhibit No. 3 is a plat showing the area in which the Stevens A-34 No. 1 is located. This well is shown circled in red as in the previous cases and is located 1930 feet from the North line and 660 feet from the West line of Section 34, 23 South, Range 36 East. The approved proration unit allocated to this well is outlined in red.

Q Now, Mr. Queen, is that all of the wells for which Continental is seeking an exception at this time?

A That is correct.

Q Are all of these wells tubed?

A No, sir, there are two wells that are not tubed.

However, the --

Q Which wells are those?

A Those are the Ascarate D-2h No. 1, and the Danciger A-3 No. 2.

Q Are any steps being taken to remedy that situation?

A There is. The proper necessary paper work is being prepared for proper management approval to purchase tubing and install it in these wells.

Q Do you know when this will be completed?

A It will be completed in 1954. There is a problem arising from several of the wells that don't have tubing. Several of these will have to be plugged and abandoned since they cannot pay the installing of the tubing.

Q Now, what is the situation as to the wells for which you are seeking an exception in this case?

A These wells are overproduced in excess of six times their current allowable, which has been fairly low, varying in overproduction of six months to eighteen months overproduction.

Q Were each of these wells reclassified in the last year?

A They have been reclassified within the last two months, I believe.

Q And all of them have been since overproduced, is that correct?

A No, sir. They were overproduced at the time they were reclassified. They had been continued to be overproduced since they had been reclassified.

Q Now, do each of these wells produce liquids?

A They do.

Q Referring to what has been marked as Exhibit No. 4, will you discuss that exhibit, please?

A Exhibit No. 4 is a copy of a gas measurement chart for the Meyer A-29 No. 1 which is located on Exhibit No. 2. And the chart was made before the installation of a high pressure separator. This installation has been completed. As can be seen on this chart, the liquid passing through the meter distorted the differential pressure reading to such an extent that an accurate differential reading could not be obtained. I have tried to determine as to what reading the gas purchasing company used in regards this matter, and as I understand, they merely used the reading set forth in this chart and averaged it of course, which would be a lesser rate than actually -- a lesser rate of gas than actually went through the meter. This exhibit is merely offered to prove that the well was making gas in the slugging -- was making fluid, and the slugging effect of the fluid caused a differential change in the meter reading.

Q What did they average, as you know?

A No, sir I do not know. I presume they gave one of these Vectornic devices that can run those things out. Actually the wells we are talking about are not very good wells. Most of these wells are in a very similar situation, in that the majority of the gas is produced in the morning, and the afternoon.

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Exhibit No. 5 is a copy of the chart recording the  
pressure drop across the differential pressure separator  
and the differential pressure across the meter. It shows that  
the pressure drop across the meter is the liquid in passing  
through the meter. The slight variations of differential pressure  
on the chart are due to the fluctuation of the pressure. There was  
no other work done or said with the installation of a high  
pressure installation.

Will you refer to Exhibit No. 6, and discuss that ex-  
hibit, please?

A Exhibit No. 6 is a copy of the instrument chart  
taken on the Meyer D-28 No. 1 cell. The differential reading on  
this chart shows exactly when liquid was passed through the meter,  
and when just -- and just when was being returned. I have cir-  
cled the areas in one in particular where fluid passed through the  
meter. However, there are two more instances where it happened,  
one just after the start of the first day, and the other one, and  
there is not as much change as the fourth day when there was a slug  
of liquid passed through the meter.

Yes, and the chart which has been marked is Exhibit No.

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A If I say. I just thought of something I would like to add. As noted, at the start of the first day, after the unloading of the liquid, the gas production is considerably higher than in the seventh day when it was loading up and when the liquid was unloading, and, therefore, the production of the well is directly tied with the accumulation of fluid in the well bore.

Q Now, referring to what has been marked as Exhibit No. 7, would you discuss that Exhibit, please?

A Exhibit No. 7 is a copy of a static pressure survey run on the Ascarate D-24 No. 1 Well. This survey showed approximately 250 feet of liquid in the well after it had been shut-in for twenty-four hours. On Exhibits 4 through 7 -- the Exhibits 4 through 7 prove to me that liquid is present in these Jalmat gas wells. If these wells were shut-in for an extensive period of time, the liquid present in them could form a formation block and do great harm to the productivity of the wells. I will testify, if it is desired, as to the liquid productivity of each one of these wells. They are not in the form of the Exhibits, they are in the form of verbal testimony, if the Commission so desires.

MR. NUTTER: We would like to hear that, Mr. Queen. We would also like to know the amount of overproduction that each of the wells has. You mentioned it was from six to eighteen months.

A All right, sir, I will read that into the record. The overproduction that will be read by me was calculated as of

8/1/54, and the name of the well, the MCF of overproduction, and the months overproduced in a comparison -- I'm not sure about this, Mr. Nutter, whether this is the August or July in comparison to that month's overproduction. Maybe I had just better read into the minutes the amount of MCF overproduced. I can give you a figure, but I'm not too sure whether it compared with the July figure or the August figure.

Q You've got the number of months, but you are not sure what you are comparing it with?

A I believe it's August. However, if it is of concern, I can let the Commission know --

MR. NUTTER: Well, now, is this a comparison of this individual well's allowable or the average allowable for the pool for that month, or just what?

A I would not say this; I'm at a loss. I would prefer to read into the minutes the name of the well and amount of overproduction as of August 9: Ascarate D-24 No. 1, 19,973. And, as I said, these are MCF figures. The Danciger A-3 No. 2, 69,753. Jack A-20 No. 4, 56,871. Jack A-29 No. 3, 82,012. The Meyer A-29 No. 1, 46,864. The Meyer B-20 No. 1, 70,439. The State A-32 No. 4, 119,969. The Stevens A-34 No. 1, 10,271. The Wells B-1 No. 1, 20,313. According to our calculations, the Meyer B-23 No. 1 is overproduced in regards -- on a monthly basis. According to our calculations, it is 18.3 months, but I cannot tell you what comparison that is made.

I would also like to state there are other wells in the Jalmat Pool that have liquid producing problems, but, however, are not overproduced, and the ones that we have brought to the Commission this morning are only those that are overproduced.

MR. WUTTER: Do you have any other wells that are overproduced, that are shut --

A I cannot answer that. You mean whether they have a liquid problem or not?

MR. WUTTER: That is correct. Do you have any other wells that have been shut-in, that are not the subject of a hearing this morning, that are in the same category?

A No, sir, not in the same category.

Q (By Mr. Kellahin) Mr. Queen, do you have the information on the liquid in the other wells other than that you have already given?

A I have.

Q Give us that, please.

A I would like to give the deliverabilities for these wells at the same time I give these figures, and the line pressure to which they are producing. The Ascarate D-24 No. 1 is a low volume liquid producing well, and is blown down by field personnel once to twice per month. Each time the well is blown down, one to two barrels of fluid is produced. The deliverability of the well as calculated on 4/4/58 was 96 MCF per day. As determined on 3/2/59, it was 95 MCF per day. This well produces into a line



I would like to further add this --

MR. TUTTER: Where is the location of that well again?

A It is in the NW/4 of Section -- it is on Exhibit 1 -- the west offset to the Wells B-1 No. 1.

MR. TUTTER: That's your Wells A-1 that you are talking about?

A That's right. It would be in Section 1. This well, remedial work was performed on the Wells A-1 No. 1 on February the 25th, 1958, when we attempted to squeeze the formation, reperforate an acid frac. We did not recover load oil and the well was shut down. And it was shut down prior to the remedial work, and, in our opinion, remedial work cannot be justified on the Wells that is now under consideration as based on the results of this well.

The Danciger A-8 No. 2 is blown down once per month, and one to two barrels of fluid is obtained. This well does not have tubing and does not require blowing down any more often than any of the other wells. The deliverability, as obtained on 3/14/58, was 769 MCF per day. As obtained on 2/6/59, was 290 MCF per day, and as obtained on 4/24/59, was 389 MCF per day. This well produces into an intermediate pressure line of 253 PSI.

The Meyer A-29 No. 1 produces from twelve to fifteen barrels per day; is producing now on a reduced flow volume to keep unloading, and this was instigated after the ruling of which this case is under consideration. It is, in August 242 overproduced,

and August production was 1,360 MCF. Deliverability of 3/7/54 was 239 MCF per day. Deliverability on 2/2/54 was 438 MCF per day.

NP. WITLER: How much?

A 339 MCF per day. The well produces into an intermediate pressure line of 240 PSI. The Meyer A-21 in. 1 produces from 4 to 12 barrels of fluid when it is swabbed, which it was. I would like to give some history on this well since it is particularly important with respect to this case.

In January and February of 1954 this well was dead due to loading up on water. The well was swabbed off four times in January and February to unload this water. For all practical purposes at the time this well was found, the well was non-commercial. During a period of several months, the well was immediately swabbed and flowed and blown down and carefully observed by field personnel. It is now being unloaded one time weekly to keep it from logging up with fluid, and since it is overproduced, very little gas is being produced from the well. In other words, we are attempting now to curtail this production. The well now is overproduced as of 1/1/54 70,493 MCF, which is the well, I said, on a monthly comparison basis, is overproduced the largest amount.

Q How much did you say in liquids it makes per day?

A The original figure, I started out to give a liquid figure, that was being swabbed out at the time we attempted to

put it back on production almost a year and a half ago. There was being produced 4 to 5 barrels of fluid each time it was swabbed. At the present time, it is unloaded once a week, and it is producing less than 4 barrels a day.

Q I thought when you first started talking about this well, you said it was making 12 to 14 barrels per day?

A As I said, I started to give the testimony as to its present production. It is usually 4 to 12 barrels originally, and this is what it was producing at the time it was swabbed down after we got the well blown down and cleaned up, which took several months in time. Now, it is producing somewhat less than 4 barrels per week.

MR. NUTTER: Well, now, the daily production, does that have water in it?

A No, sir. Some of them produce some water continuously and some of them do not. They load up and you have to manually blow them down.

Q (By Mr. Kellishin) So you blow this one down once a week and get 4 barrels?

A Now, these figures that I have given you are not measured each time they are normally blown down, and they have been obtained from personnel who actually do this work. And, as previously mentioned, there are numerous other wells that are blown down similar to this. However, they are not overproduced. Deliverability on this well, I do not have it. There was no

deliverability of the well is considered non-commercial at this time. The well was drilled on 4/24/58, and is located in the intermediate zone of the P&H. The well is in a position in the field that is January and January of the well was drilled down.

The well is 1-1/2" in diameter, and is two weeks, and each time it is shown, it is shown as approximately 2 barrels of fluid, and when it is shown, it is shown as approximately 2 barrels of fluid. The well is in a position in the field that is January and January of the well was drilled down.

The well is 1-1/2" in diameter, and is two weeks, and each time it is shown, it is shown as approximately 2 barrels of fluid, and when it is shown, it is shown as approximately 2 barrels of fluid. The well is in a position in the field that is January and January of the well was drilled down.

unusual but not impossible. In the case of a well that is almost completely abandoned, it is possible that the water level in the well is high enough to cause the water to flow out of the well. This is a very rare occurrence and it is not recommended that a well be abandoned unless it is certain that it will not be needed again.

It is also possible that a well is abandoned because the water level in the well is high enough to cause the water to flow out of the well. This is a very rare occurrence and it is not recommended that a well be abandoned unless it is certain that it will not be needed again.

There is a possibility that a well is abandoned because the water level in the well is high enough to cause the water to flow out of the well. This is a very rare occurrence and it is not recommended that a well be abandoned unless it is certain that it will not be needed again. This well had not been tested, it was found that the water level in the well was high enough to cause the water to flow out of the well. This is one of the wells -- well number 10 -- that is now being used to install a pump. This is one of the wells that is being used to install a pump after the installation of a pump. It cannot be known until the proper installation of a pump is made.

Is it possible to repair a well and make it and try to get it back on production, as you have described, in regard to any one of the wells in this area?

If the well has been abandoned and is now full of fluid, sometimes it is possible to pump the well back to a normal maintenance of flowing time and then when time, the well can be brought back to production. In a case of a well that is in a poor condition, it is our opinion that a well that is in a poor condition can be brought back to production.

in these wells to shut off the water so that they may be producing fluid free.

Q Is it considered to go through the process of getting a well back on production once it is loaded up with fluid, does that constitute waste?

A It constitutes waste, and not only that. If this happens, you have severely damaged the formation, and you will never return this well to its deliverability as it was before the well was shut down. So, it is actually a loss of ultimate recovery.

Q Do the wells tend to load up in the event production is curtailed to a large extent?

A Very definitely.

Q In your opinion, is there any danger to -- in this situation, which would occasion the loss of a well in the event they are completely shut-in?

A If I understand the question correctly, there would be, in my opinion, there would be a possibility of losing a well and a very good chance to lose a well if they were shut-in until the overproduction is made up.

Q Does that constitute waste?

A It definitely does.

Q In the event they were not completely lost, is there a possibility of severe damage to the well?

A There is.

Q And would that constitute waste?

A If you'd.

Q Now, Mr. Treen, as I understand the application, it is for an exception to the Rule, which would permit continued production of these wells at a curtailed rate, and, as I understand your testimony, if the rate is curtailed drastically, there would still exist a danger or damage to the well on account of the accumulation of liquid. Do you have any proposal to make to the Commission as to how this situation should be handled?

A Since we are talking about several wells, it is impossible at this time to state exactly at what proportion these wells should be produced at, and what rate they should be produced at, to keep this accumulation of fluid from harming the well bore. It would be our contention to produce the wells at the least rate possible to keep them unloaded with fluid, and, therefore, by not damaging the reservoir and thereby making up the underproduction in the fastest period possible without stipulating the actual maximum or minimum rate.

Q Could the most feasible rate of production be determined?

A After proper testing, it could be.

Q Would you recommend such a testing procedure?

A Providing the Commission does not give any additional allowable for these wells, and I think there should be some consideration for such a thing. I believe it would be most economical

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Continental Oil Company decided not to come before the Commission to ask for additional allowable due to varying reasons. However, I would highly recommend that the Commission take this into consideration, consider the reasons these wells are overproduced, consider their producing nature, and the fact I hope I have proven to the Commission that they will be damaged if they are shut-in. And at this time it is not known how much they can even be curtailed without physically damaging the reservoir and loss of ultimate production thereof by this curtailment. However, this has not been made a part of this case. I believe that's all.

Q Mr. Queen, were Exhibits 1, 2 and 3 and 7 prepared by you or under your direction and supervision?

A Yes, sir, they were.

Q And are Exhibits 4, 5 and 6 copies of the meter charts furnished to you by the purchasers?

A Yes, sir, they were.

Q Are they taken from your company files?

19. WHELAN: At this time we would like to offer in evidence Exhibits 1 through            inclusive.

MR. MUTTER: Continental's Exhibits 1 through 11 will  
be entered in Case 1.

A I would like to comment, if I may, that Exhibit No. 1 was run by our test engineer on 1 -- the date of 1/1/ -- 1/9/59 in particular reference to this case.

Q (By Mr. Kellahin) Was this taken with a bottom hole pressure bomb?

A Yes, sir, it was. We were pretty much rushed on this, and we did not get the reading on these things as shown on this chart, and then we double checked. We did plot the different time on these things to show the pressure buildup.

MR. NUTTER: Is the fluid level at the end of twenty-four hour shut-in -- he didn't take a bomb reading at the beginning of the shut-in, did he?

A        I cannot answer that.  Surely if the bomb was opened, the reading would be available, and whether he -- since this well does not have tubing in it, and, of course, he did not obtain a fluid level from the sonic reading.        This is the most import-

ant question, I understand, and I'm not able to answer it.

MR. NEWBOLT: That's all the questions I have.

MR. TUTTLE: Does anyone have any questions of Mr. Queen?

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Queen, are the water problems or fluid problems uniform throughout this pool?

A No, sir.

Q Are most of your wells located on the flank?

A No, sir.

Q Where are they located, generally, in regard to the pool? Are they spread out?

A Yes, sir, and in particular, if you take into consideration all the wells that produce fluid, as I previously mentioned, we have only discussed those here that are affected by this change of status from non-commercial to commercial -- I beg your pardon -- from marginal to non-marginal.

Q So that any well in this pool may make a great deal of liquids no matter where it is located?

A No, sir, I don't mean to infer that.

Q Your wells are not located in one general area, are they?

A No, sir.

Q And yet all of these nine wells do make considerable

Q Now, is there any attempt being made at the present time to compensate for this overproduction?

At the present time, in contemplating what will happen at this hearing, we are trying to determine in what way we can produce these wells without them loading, and, therefore, by curtailing production --

Q You are trying to hold all these wells at least within the allowable at present?

A I would not say cost, no, sir. We are at the time trying to determine at what rate they could be produced; not all of them, but we are taking certain wells to determine this. This is a time-consuming process to determine what is the minimum rate of production you might produce a well without loading it up with flood adversely to what it has been doing.

Q And that rate might be in excess of the allowable?

A That is correct, sir.

Q Now, I believe you testified that if you had to shut-in one of these wells, you might lose ultimate recovery. Now, is that loss of ultimate recovery from the well or from the pool?

A Well, if it is ultimate recovery from our wells, that

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is all we need to be concerned with because somebody else in the pool may get it, or if it is continued, or the New Mexico Federal Unit or Continental, as operators -- underlying their acreage, and if it is moved for some other reason to another pool because we are not allowed to produce it -- beg pardon, not allowed -- we cannot produce it due to this -- and if it is moved to another pool, it is not our loss, it is theirs, and we have to live with it.

Q It is not physical waste --

A It is possible it could be physical waste.

Q It is not produced out of that well, yet it is produced out of another one?

A It is my opinion that if those wells were shut down, and if they could not be brought back, which in my opinion, they would not be to their original producing rate, that some loss of ultimate recovery would be sustained from the entire pool. How much of this would be very difficult to say.

Q What you are saying, then, is that all or it wouldn't be recovered from another well, or at least there is a good possibility of that?

A Yes. I would like to make it clear, if I may, that it is Continental's opinion that gas underlying this acreage at this time should be produced through their wells and not by some offset operator's wells.

Q Well, it might be just your misfortune that your wells happen to make considerable water and the other fellow's

didn't?

A Well, this word "misfortunate" I don't believe applies since this is controlled by the producing features of the formation, and as again pointed out in the case of the Steven A-20 No. 1, we have a deliverability close to the economic limit, it is not at that point; that a well curbed at that point seems to be unduly restricted in its producing rate.

Q Now, you testified, didn't you, that Continental itself shut-in one or two of these wells because they were thought to be non-commercial?

A No, sir. I didn't say we shut them in. At the time the well that I was speaking of, which was Koye B-20 No. 1, in January and February of 1953, which was temporarily shut down at that time and considered non-commercial, the -- at that time Mr. Lot, who is presently our division gas coordinator in the Roswell office had been assigned from Texas to Munsie, New Mexico to our Munsie district office as gas foreman for the specific purpose to taking care of wells and placing wells back on production like this. Continental Oil Company did not have personnel there prior to this when these wells started to load up when they originally started to make water production; were not properly blown down. In the first place, we didn't even know what was happening to them, and Mr. Lot in his course of duties with Continental Oil Company at the district office placed this well back on production in the manner in which I stated.

Q How long was this well shut-in? It was temporarily shut-in, right?

A The well was never shut-in as far as to the pipeline. The well loaded up with water and did not produce gas. We did not shut the well in.

Q Did the well suffer material damage when it was brought back on?

A Due to the lack of proper testing, of which the entire industry, I believe, is at fault, and reservoir analysis or, which is just now coming into its own, into complete reservoir studies, we cannot tell you, or cannot testify as to the damage of this particular well. I'm sure that if an engineering study was made that proper testimony could be prepared to indicate one way or the other. Based on the information we now have, based on information of producing rates, deliverabilities and operating pressures of the wells, that it is a common knowledge, and belief with the engineers in the Eunice District and with myself, that these did damage the ultimate productivity of the wells, ultimate recovery and productivity.

Q Let me ask you this. Did you have a deliverability in this well before it was temporarily shut-in or temporarily not producing and a deliverability after the liquids were unloaded and it was producing back again on the line?

A I do not think that we have a deliverability as such, because, as I recall, I don't believe there were any deliverabilities

conducted until then in the Jalmat Pool. Mr. Uta might be able to correct me on that. I'm not that familiar with it.

MR. UTA: There were some in 1941.

A This I do not know. They may be available in our files.

Q Do you feel that the installation of tubing in these two wells will alleviate the fluid accumulation problem for these two wells?

A No, sir. It will better aid us to keep the wells blown down if they are allowed to produce at a proper rate. The other seven wells that I have testified to have tubing in them, and we, in some instances, produce more water in those wells than we do in the tubing. The tubing in these wells, which there have been some installed since 1941, strictly because the wells would load up with water, and they were commercial enough that we were justified in doing it.

MR. NUTTER: Mr. Queen, I would like to ask a question here. You say you can go out here and blow these wells down and remove the water from the bottom of the hole. What is the matter with shutting the wells in and going out there and blowing the well down every morning?

A The well would have to produce at a rate for sufficient time to blow these wells down, in the first place, and what rate this would be and how long it would have to be blown to do this, I do not know, I am not prepared to testify; when we say

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1. The Commission has been informed that, in the course of the above-mentioned investigation, the following information was obtained --

1. The first group of people who are interested in the results of the study are the researchers themselves. They want to know if the study was successful in achieving its objectives and if the results are consistent with their expectations.

... ..

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971) using a Shimadzu 1601 UV-Visible Spectrophotometer. The concentration of chlorophyll was expressed in  $\mu\text{g mL}^{-1}$ .

and I would have left it out, but by the time you showed me after we, as you say, returned to town

Q. No, sir. The loss of this will not be recovered. It is a business card which the man had lost, to obtain the loss of. If the commercial agreement, enough to furnish commercial insurance to the man, we know he will come back taking completely free of charge, a very small amount, it is not known.

MR. LAMM: Mr. Moon, assuming you came up with a figure, and correct me if I am wrong here, is his impression that each one of these cells should have a particular rate of production rate rather than one rate for all of them to make up this overproduction?

A Yes, sir.

4. The rate of production for each well should be determined individually?

4. "I told the pilot that I had no real knowledge of navigation to follow a recommended route that it would take us easting. However, we were going to install hole tubing regardless of what he said. After our personal encounter with the Commissioner, we then attempted to install tubing.

How do you accomplish this blow down? Do you have blow down strings in all these wells?

Yes, sir.

It being 12 noon on April 17, 1901,

1. *Journal of the American Medical Association*, 1990; 263: 1033-1036.

A. You have asked a question which I am not able to answer.

Now, I'm not quite sure I got your meaning in determining how we should divide the rate of absorption for each of these wells. You intend to test three

A If I say so then, if the Commission gives us approval to make up our complement of 100,000 in next scout-in production, and the new thing we have it will be 10 percent, 90 percent, we will in any case admit -- our field personnel

the way is to make a... well, I think, that they will...  
 another... to the...  
 to the...  
 current...  
 only...  
 if then it would be...  
 really...  
 given to the...  
 with reasonable...  
 that time that will...  
 Commission the...  
 and so this is...  
 which would...  
 would do it as quickly as they could...  
 or two... of test --

Q You want to... where  
 you wouldn't reach a...? Well, follow. Do you have any  
 idea what the critical...? There is going to be  
 some fluid, isn't there?

A There will be fluid... at the capacity it is  
 flowing. All we are... is to maintain the... rate of  
 flow so we will have the... fluid... and I believe it  
 would be unsatisfactory to... it... water should... it  
 once a day. ... the fluid

33  
buildup of production in wells a cause or have the fluid build-  
up. We are not going to maintain these wells at these these  
wells at a fluid as often as possible, and a certain rate of  
continuous production will be maintained in these.

Q This is what I'm trying to pin down. You are going  
to have fluid buildup at any rate. Now, how much fluid buildup  
is critical?

A This will depend on deliverability of the well and  
how much fluid is coming into it, and will be dependent upon each  
well. Permeability and porosity will come into bottom hole  
pressure. As you noticed, our deliverability line pressure var-  
ied all the way from 31 PSI, which I believe was the lowest, to  
343, which I believe was the highest. For example, we are doing  
work with the purchasing company at the present time in trying  
to get some of these wells reduced to lower line pressures. The  
Stevens A-34 No. 1, which has the lowest deliverability of 29 to  
41, is producing into a hundred twenty-six pound line pressure.  
If we can get this lowered to a low line pressure of, say, 37,  
it is our contention our deliverability will go up and we will  
be able to produce more gas on this.

MR. PAYNE: That's all. Thank you.

A I believe in one question that you asked me, if I  
had to give a percentage of the allowable of what might be, an  
average figure might be assumed to be 10 to 15 percent, but this  
may be way too much for one well and way too little for one well.

it depends on permeability, porosity, bottom pressure and changes of that kind.

QUESTIONS BY MR. TUTTLE:

Q Now, would you suggest, Mr. Dean, that the wells while they are under production, say, produce at 10 percent or allowable, that they receive no future allowable during that time --

A As I stated, --

Q -- so that all production would be charged against overproduction?

A As far as this application, that is true. As stated, it is our thinking that the Commission should consider giving these wells additional allowable, taking into consideration that we are not talking about good wells, we are not talking about high potential wells, we are talking about, in most cases, wells that are making the operators a very small amount of money, and, in my opinion, there will be several wells actually shut down or plugged and abandoned due to the installation of tubing which we realize we should have in; therefore, there is an unusual situation. To make my statement clear, we are not asking for any additional allowable. However, we would highly recommend the Commission recommend this and take it into consideration because we feel that they are due additional allowable over what the small rate they are giving due to these tests.

MR. TUTTLE: How many wells does Continental have in

1. *Chlorophyll a* (Chl *a*)

That is correct. We also have other wells producing water. When we started preparing a list. I have three wells that I can give you the names that are water-producing wells that are slightly overproduced or underproduced, and I mean slightly less than six times their daily allowance. And these are the Lynn A-28 No. 3, which is underproduced, and it has a serious water problem, and we have seriously considered numerous types of remedial work which we cannot justify because of previous -- we have other remedial work which I did not try to attempt, that we have done on these wells that have been unsuccessful. The Meyer A-29 No. 4 has a serious water producing problem. It is underproduced. The Schulte B-30 No. 2 is underproduced, but only a very small amount, and it has a serious liquid problem. Now, we have classified our wells as to whether we consider it moderately serious or slight liquid problems, which I did not present today, depending on which it is, depends on how fast the overproduction can come out.

MR. BARTON: How does this situation come about, where you have two wells of comparable delivery and comparable water problems, and one is considerably over-curved and another is not?

What is deliverability.

Mr. Fitts: They've got the same deliverability now.

A They have the same deliverability, and they have the same acreage, and, therefore, they have the same allowable.

Q Mr. Fitts: Yes, and the same water problem?

A I'm sure you have two in the Joliet that would meet this. I would rather and without taking too much time state that the permeability and the porosity and the bottom hole pressure in that particular area of the pool would contact such a thing very easily.

Q (By Mr. Tutter) Perhaps the perforations would enter into that, too, wouldn't it?

A That's right. We have learned a great deal since these wells were completed.

Q Do you think these wells may have a problem because they have a small proration unit, their allowable is too low on account of their acreage?

A We have everything from 80 to 320 here. This could be a problem. However, they could not have gotten to a non -- to a marginal status in the beginning if this had been true. I would say that one of the problems -- one of the reasons we are here today on this very problem is because of the allowables that have gone down. Also, I believe that if this thing was not brought to the attention of the Commission staff or however it is -- was brought out, until, say, December, that possibly they would



...in the ... .. on a ... .. basis, we can ... .. in 1955 to ... .. There wells ... .. and we will ... .. however, we feel to be ... ..

... .. of these wells, do you feel that the ... .. in that ... .. properly ... ..

A This would require ... .. of course, if we can properly justify and feel that this ... .. is still ... .. tive, and if the well to which it could be assigned could produce the additional allowable, of course, we, I'm sure would appear before the Commission for --

Q You wouldn't consider it the same as a dry hole simply because you had to abandon it?

A No, sir. We are spending considerable money and effort to determine whether we can afford to install tubing and separators and the necessary items. I would like to further state that another thing that has really made this problem acute now and has been happening, I would estimate since I was not here, somewhere in '45, early '50, that the time when these wells first started making water has not been too long past. In fact, I'm sure if we were to check this one well that I have mentioned to, that was well in January, February, this well probably started making water in '45. This

is not continuing and the pump can be used. And up at the pump, now this Commission, and I understand there are some new ones. Have let their wells go until you say, "Well, you should shut them. These wells are beginning to go dry, they are increasing in the quantity of water." It's correct. We were before this Commission a year ago now, we would testify that these wells are being blown down automatically once a day. Now efficiency depends entirely upon its deliverability, its back pressure and flow rate and things like this. And one person who must do it manually now is because of the large volume of gas that must be produced immediately. Now, we are blowing the wells down, and with the addition of automation earlier date being, it means that you will have some type of automation and you can because we have had no -- found no way to economically shut off the water in these wells, and this is testimony on my part. If someone can show us how -- if the Commission has a way, we would be most happy to consider it because we have numerous wells here that the water is going to cause ultimate loss of production, and if we could shut off this water, maybe we could get it back.

MR. TUTTLE: Any further questions?

QUESTIONS BY MR. TUTTLE:

Q Mr. Queen, has the Commission passed any shut-in order for any of these wells up to date?

A Mr. Tuttle, I am not sure. I was in conversation with

Mr. Witter: ... what was being done about it, and he informed me that ... this date, and we immediately rushed into preparation of this application, and this is the only contact that I know has been made ... has been made to this order that was issued.

Q Your wells, now, have not been shut-in by the Commission?

A No, sir.

Q There was some reference to previous testimony that indicated there might have been shut-in orders?

A I'm sorry, there have been none that I am aware of.

Q Now, this overproduction that you gave, as of August the 1st, that was total overproduction?

A That is correct.

Q Does not represent the amount or was that these wells are curtailed or may be curtailed for --

A No, sir. What would be the number of months it would take to make up the overproduction.

Q These wells are curtailed for a considerable lesser amount of overproduction than the actual production. In other words, they are curtailed for the overproduction that they had as of December the 31st, which was not made up as of December 31, curtailed volume is substantially less than the actual overproduction because the overproduction that you had from December until July is not a curtailed volume.

Q Is not the Commission's action, which the Commission is going to ask us to curtail, is that the point?

A Yes, that is correct.

Q But will the Commission not come back when they have their correction at the end of these six months' producing period and take this into consideration?

A The end of January, the figures you read would probably be more correct.

A So we must be concerned about the figures I just read than the figures that you are concerned about because eventually we will be faced with the making up of this overproduction.

Q The overproduction we need to be concerned about presently is substantially less than the figures you gave. Is that correct?

A That is correct. It may be possible we may make up that before the other figures come up. This is an overall production you are correcting.

Q I note that the overproduction you read for August the 1st is almost in every case substantially less than July 1st. You are curtailing these wells at the present time?

A We endeavor in every case to abide by Commission rules, and this is an example of that.

Q During the past several months, twelve months, these wells have produced some months substantially less than they

problems during those years. We have today, in view of, say, four years ago, I don't say we know any many more things than we did a few years ago, and this information about the wells than we did a few years ago, and this information that I have obtained was obtained from the field and files that were kept but were not individual company records, individual foreigner files, but I believe I am Commission considers this information, it could be clarified.

It's a little bit of a waste to have you out there  
determine what your animals producing rate is on these wells. Are  
you going to try to flow them consistently at some minimum rate. -

is our opinion --

Q -- or are you going to show once every two weeks into the line or once a week into the line, or such a number as that?

that?

A        This will have to be determined. I would anticipate that our initial figure would be that the most desirous way would be to flow the wells continuously. However, if they can be blown periodically and still the same result obtained, which is the maintaining of a blown off condition on the liquid production, then this would be the most rapid way of making up the oil production. We have very little to gain, especially volumewise, by prolonging the period required -- I mean prolonging the period in which we make up this overproduction.



then, say, once a week or once a month?

1. The first step is to identify the problem. In this case, the problem is that the system is not working properly.

thing will be done with it. The Commission will be the Commission which will be a full-time process for the Continental Oil Company and the Commission. Now, what I am saying is if the Commission does not give any additional allowance while in addition to this application, if they want us approval, we produce these wells at a rate lower than the shut-in rate. I believe this is the correct way to say it. Then we will endeavor to produce this at the most rapid rate. This is the way we would like to have this application rule. However, if the Commission states that we can do this but at a predetermined rate or at a rate on which you must notify us, this is the extra work and effort that I'm trying to alleviate from this problem. Now, as I can see the problem, the only difference will be that the Commission will not know except by checking month by month or after a period of time how the well is proceeding. The other requirement would require for you to write the Commission -- for us to write the Commission a letter telling you how we have tested and what the shut-in result -- and what the results are; which, if we can prove to the Commission that this is the minimum rate, I believe the Commission will accept it.

Q You are going to continue to produce these wells at a lesser rate?

A That's correct.

Q If you select some rate where the well is low enough so where the well dies, you are in better bed shape?

A The timing of this shut-in. Wherever we are expected.

especially in wells with very peculiar rules, a well often be put  
on a rate of 100 percent of its capacity. These wells  
have been put on a rate of 100 percent and we can be analyzed, at  
time periods, by the production of our gas to come, and then we can  
further reduce it, so that a well appears to be giving difficulties,  
it can last a great period of time. The danger of this thing is  
the only difference that I can see. It's trying to be believed on  
any time period on which this can be done because we have one gas  
foreman in the Sunice District which is responsible for the entire  
Jelmot Pool as well as other gas production. The only thing non-  
power is -- we certainly do not have an oversize, and the timing of  
this thing is when I am trying to get the gas to come. He originally  
thought that we could come and then if any in, and just ask for  
some figure to allow us to have our old production at 50 percent.  
Now, this, in some cases, we can make it up to 10 percent, which  
would mean we would get it made up faster, so if we set a figure --  
if the Commission sets a figure, and it would have to be of our  
high enough to take care of. Let's say, the worst wells, then, if  
the people make it up, their better wells at that same rate, it is  
going to prolong the period, so there is a problem arising either  
way. Again, you get down to individual wells. If you get down to  
individual wells and force the operators, by either, or through  
the Commission at what rate they are going to be overproduced, you  
are forcing additional work that will not be required.

Now, how do you find it will be a good idea to

the cost.

... other wells would be  
... here.

... you could be easily  
determining the number of ...  
... production of ...

If we assigned a ...  
... during the month, which  
we would have to calculate. This ...  
This is the problem.

Do you think it is an overstatement to ...  
... nine wells? This is a ...  
... I have no idea how many hundreds of millions of feet of over-  
production we've got here.

Mr. Hutton, the Representative ...  
of production in August. This is equivalent, roughly, to eight  
dollars. Our engineers have said that's more than this, not  
enough, but considerable more than what it was a month. As I  
see it, we are in a very peculiar set of circumstances here. I do  
not know about the other companies, but the majority of the wells  
that I have mentioned to this morning are very poor wells. They do  
not have the operating ...  
... rates, but there is very ...



thousand dollars. The total cost of the project is estimated at one million dollars.

WOLFE: 10-11-68

The above is the way that our people are being  
in for two years. The oil is in the ground and it is now  
fifty-nine thousand barrels of oil. This is five hundred  
dollars for two years. This is a very good investment for  
investing for drilling wells and operating wells. It is not a great  
deal of money. I would like to state that it is not a great  
deal of money that should be invested. I would not say that  
all nine of the wells are necessary. The wells have  
been classified under one group. In our opinion, we decided  
to ask for the application as we have set forth and this is, as I  
understand it, is an additional consideration. I would have to  
examine each nine of -- each well, consider the geology,  
their line pressure and all other reservoirs about the well  
before I could, as an engineer, either for Continental or for the  
staff, either recommend whether it should be operated. Certainly,  
in sitting here, tracing the Stevens "L" No. 1, in my opinion,  
has no place in this application, even though this well in connec-  
tion to this figure was fifteen hundred, as I recall, or produced.  
And it has a number one fifty-nine well. This is a well  
which means it is not a well that is a part of the  
production of the well. It is a well that is a part of the  
production of the well.

A. ...  
 B. ...  
 C. ...  
 D. ...  
 E. ...  
 F. ...  
 G. ...  
 H. ...  
 I. ...  
 J. ...  
 K. ...  
 L. ...  
 M. ...  
 N. ...  
 O. ...  
 P. ...  
 Q. ...  
 R. ...  
 S. ...  
 T. ...  
 U. ...  
 V. ...  
 W. ...  
 X. ...  
 Y. ...  
 Z. ...

the day, the production is high.

Q. Now, I understand you consider that because of the fact that these wells are in the opinion, and of production have to be kept under a limit, and that if you had more wells, you would have an overproduction.

A. That's what I understand.

Q. But, if they could not be controlled?

A. Then, the overproduction would be a matter of the Commission and the opinion, one well.

Q. Mr. Payne: Now, if there is no overproduction, another well, might you not, if you had the same property owner?

A. I would have to see Continental Oil Company. I say about such a question as this. I would, say this. I would have to see the Commission about transferring overproduction from well to well.

Q. MR. WILKINSON: If the Commission please, the allowances are assigned to the unit, not the property owner.

A. You really show me up, Mr. Payne. If the Commission please, we would like to, here. State that Continental Oil Company would, in a future date, be prepared to present testimony as to why and on what basis that we think that this restriction of production is inequitable.

Q. On a well by well basis, as the unit, or as the

A. This is a question on the question of who has the

57  
further considered. In fact, the costs would have to be considered.  
We instance, the cost of "H" is a million dollars; again, very  
little of this is in the way of the cost of the well and the  
so called "H" is a million dollars. The cost of the well is  
less a day.

Q Now you didn't overproduce it?

A Well, you didn't overproduce it.

Q But is seven million dollars very small?

A Ten thousand dollars is small. The whole point is the  
time that is going to require to make this up, if we go even at the  
rate of fifteen months, at 10 percent, for example, and I use this  
merely as an example. It would be a half a year, two and a half  
years of overproduce to make up the cost of the well.

Mr. ULR: Mr. Lusk, in regard to your statement which  
you stated that is not a part of this record about minimum allow-  
ables, actually what you are saying is that you feel there ought to  
be minimum allowable set for the Defect Pool, isn't that correct?

A I don't believe I made any particular comment as to  
the record. I meant as regards to this testimony. I'm sure it is  
all for the record, and then the second part, do I consider that  
each well should have a minimum allowable?

Q Isn't it a fact -- wasn't it in effect, that is,  
what you were suggesting, minimum allowances?

Mr. PARSON: It seems to me, yes.

Q So you're suggesting that there should be a minimum allowable?



them in general.

The only way you would do that would be an exception to the general rule, isn't that right?

I believe so. It's not too well acquainted with Tex Mexico yet. It's learning out. In fact, if this goes like this one with claims being said and other things being testified to this morning, the Commission may also have with numerous applications on this because we would not know how we stand. I mean we, as Continental. In regards to the other operations, if there is testimony given this morning along these same lines to support that, we feel like we will not be standing alone. That we possibly will be appearing before the Commission at some future date with the prospect of selling the same type of operation. I do not consider this inconceivable. This is causing considerable time and effort for a well that is making three dollars a day, but it may be the best thing overall because some of the wells do more than that. I am sure, or I know they do.

MR. TUTTLE: Any further questions? Mr. Queen may be excused.

(Witness excused.)

MR. TUTTLE: Does anyone have anything further they wish to offer in Case 176?

STATE OF NEW MEXICO  
COUNTY OF BERNALILLO

I, J. A. Trujillo, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Declaration of Deed of Gift, below, and the Union Oil Conservation Commission was received by me in Signature and executed by the parties thereto, and that the same is a true and correct record of the deed of gift, and that I am not a party to the same.

WITNESS my Hand and Seal this, the 23<sup>rd</sup> day of October, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

*Joseph A. Trujillo*  
NOTARY PUBLIC

My Commission Expires:

October 9, 1960

I do hereby certify that the foregoing is a true and correct copy of the original as the same appears in the records of the County of Bernalillo, New Mexico.  
9-30-59  
*Joseph A. Trujillo*  
Notary Public  
Oil Conservation Commission  
Examiner