

Case 1239: Application of CONTINENTAL
for three non-standard units and the
establishment of 3 non-standard gas
proration units in Jalmar Gas Pool

Casa No.

1889

Application, Transcript,
Small Exhibits, Etc.

Give copy of
order to
Maddie

proposed

✓

Application of Continental Oil Company
for three non-standard gas proration
units in the Jolmat Gas Pool, Lea
County, New Mexico

Case 1889
Order No. R-1612

3/11
2/11

OK 2/11

ELC

2-15-60

Jan
2/19

OK
2/20

(HEARD BY NOTTER ON FEB. 10th)

FINDS:

- (1) Usual
- (2) That the applicant, Continental Oil Company, is the owner and operator of Section 32, Township 22 South, Range 36 East, Nmom, Lea County, New Mexico
- (3) That the applicant presently has the following-described non-standard Jolmat gas proration units in said Section 32:
 - (a) A 320-acre non-standard gas proration unit consisting of the W/2 of said Section 32 and dedicated to the State A-32 Well No. 4, located in the SE/4 NW/4 of said Section 32.
 - (b) A 160-acre non-standard gas proration unit consisting of the NE/4 of said Section 32 and dedicated to the State A-32 Well No. 2, located in the SW/4 NE/4 of said Section 32.
 - (c) A 160-acre non-standard gas proration unit consisting of the SE/4 of said Section 32 and dedicated to the State A-32 Well No. 3, located in the SE/4 SE/4 of said Section 32.
- (4) That the applicant proposes that the above-

described non-standard gas proration units in the Jalmat Gas Pool be cancelled and the following-described non-standard gas proration units established:

- (a) A 400-acre non-standard gas proration unit consisting of the NE $\frac{1}{4}$ and the N $\frac{1}{2}$ NW $\frac{1}{4}$ and the N $\frac{1}{2}$ S $\frac{1}{2}$ of said Section 32, to be dedicated to the State A-32 Well No. 2, located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of said Section 32.
- (b) An 80-acre non-standard gas proration unit consisting of the S $\frac{1}{2}$ NW $\frac{1}{4}$ of said Section 32, to be dedicated to the State A-32 Well No. 4, located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of said Section 32.
- (c) A 160-acre non-standard gas proration unit consisting of the S $\frac{1}{2}$ S $\frac{1}{2}$ of said Section 32, to be dedicated to the State A-32 Well No. 3, located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of said Section 32.

(5) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the following-described non-standard gas proration units in the Jalmat Gas Pool, Lea County, New Mexico, be and the same are hereby established, and those units in conflict therewith are hereby cancelled:

- (a) A 400-acre non-standard gas proration

unit consisting of the NE $\frac{1}{4}$, the N $\frac{1}{2}$ NW $\frac{1}{4}$ and the N $\frac{1}{2}$ S $\frac{1}{2}$ of Section 32, Township 22 S. R., Range 36 East, NMMN, Lea County, New Mexico, said unit to be dedicated to the State A-32 Well No. 2, located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of said Section 32.

(b) An 80-acre non-standard gas proration unit consisting of the S $\frac{1}{2}$ NW $\frac{1}{4}$ of said Section 32, to be dedicated to the State A-32 Well No. 4, located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of said Section 32.

(c) A 160-acre non-standard gas proration unit consisting of the S $\frac{1}{2}$ S $\frac{1}{2}$ of said Section 32, to be dedicated to the State A-32 Well No. 3, located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of said Section 32.

(2) That each of the above-described wells be and the same is hereby assigned an acreage factor for allowable purposes in the proportion that the acreage in the non-standard unit ^{dedicated to it} bears to the acreage in a standard gas proration unit in the Jalmat Gas Pool.

BEFORE THE OIL CONSERVATION COMMISSION

OF THE

STATE OF NEW MEXICO

Case 1889

IN THE MATTER OF THE APPLICATION
OF CONTINENTAL OIL COMPANY FOR
REALLOCATION OF ACREAGE FOR GAS
PRORATION PURPOSES TO ITS STATE
A-32 WELLS NOS. 2, 3, AND 4 IN
SECTION 32, T-22S, R-36E, JALMAT
POOL, LEA COUNTY, NEW MEXICO.

A P P L I C A T I O N

Comes now applicant, Continental Oil Company, and respectfully requests the re-allocation of acreage for Jalmat gas proration purposes to its State A-32 wells Nos. 2, 3 and 4 in Section 32-T22S-R36E, Lea County, New Mexico, and in support thereof would show:

1. That applicant is the owner of the State A-32 Lease consisting of Section 32-T22S-R36E, Lea County, New Mexico.

2. That applicant has completed three gas wells in the Jalmat Pool on the said lease described as follows:

No. 2 located 1980 feet from north and east lines

No. 3 located 660 feet from south and east lines; and

No. 4 located 1950 feet from north and west lines of the said Section 32.

3. That the lease acreage is currently allocated for Jalmat gas proration in the following manner:

No. 2 - 160 acres, consisting of NE/4

No. 3 - 160 acres, consisting of SE/4

No. 4 - 320 acres, consisting of W/2 of said Section 32

4. That applicant proposes to re-allocate the acreage in the following manner:

No. 2 - 400 acres, consisting of NE/4, N/2 NW/4, and N/2 S/2;

No. 3 - 160 acres, consisting of S/2 S/2, and;

No. 4 - 80 acres, consisting of S/2 NW/4 of said Section 32.

5. That the proposed re-allocation is in the interests of the prevention of waste and the protection of correlative rights.

New Mexico Oil Conservation Commission
Page 2

Wherefore, applicant prays that this matter be set for hearing before the Commission's duly appointed examiner, that appropriate notice thereof be given, and that upon hearing an order be entered re-allocating the acreage of our State A-32 Lease as described above.

Respectfully submitted;

CONTINENTAL OIL COMPANY

W. A. Mead

W. A. Mead
Division Superintendent
of Production
New Mexico Division

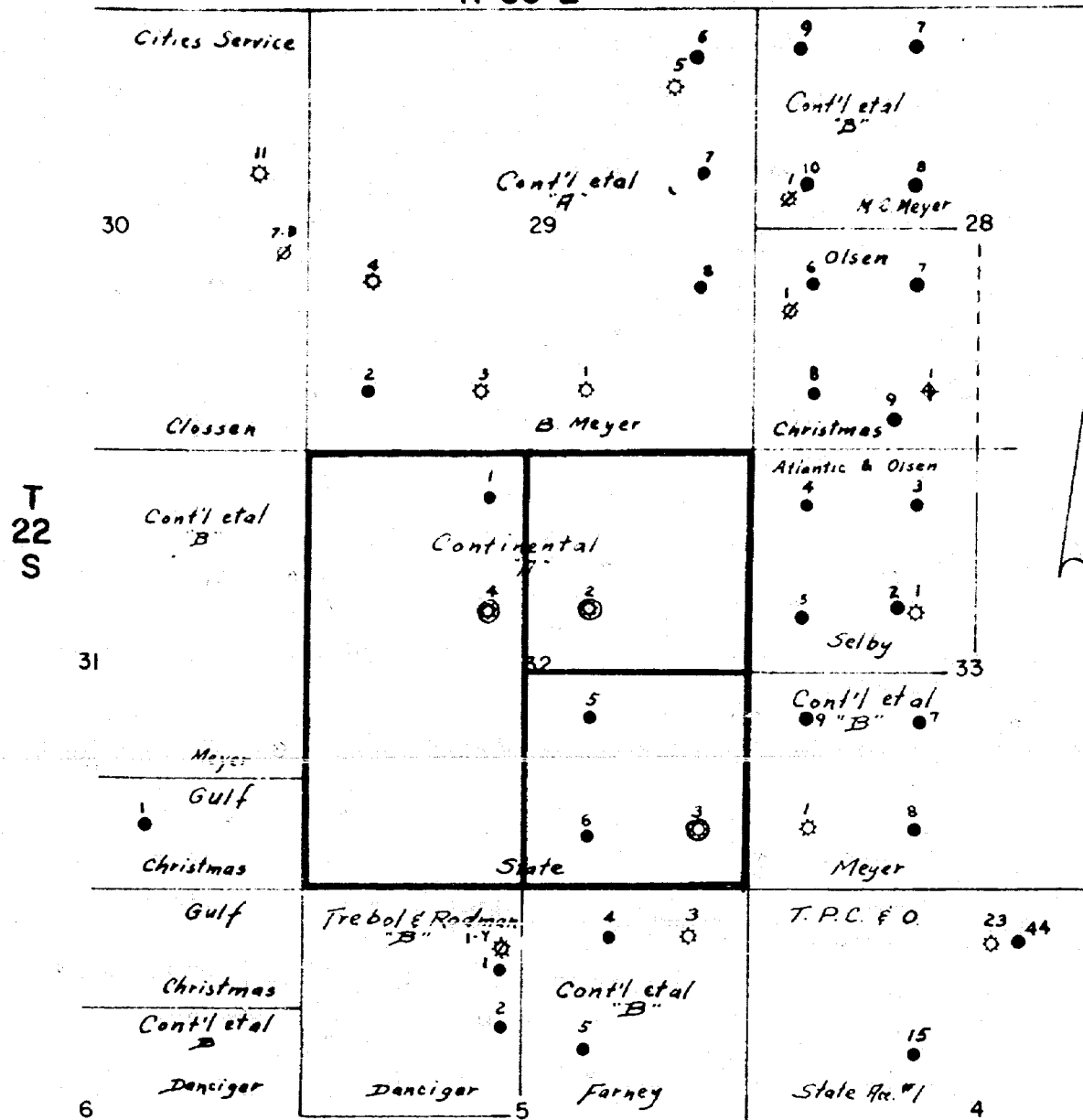
WAM-ELF

[illegible]

EUNICE
N. M. DIST. OFFICE

SCALE 1" = 2000'

R-36-E



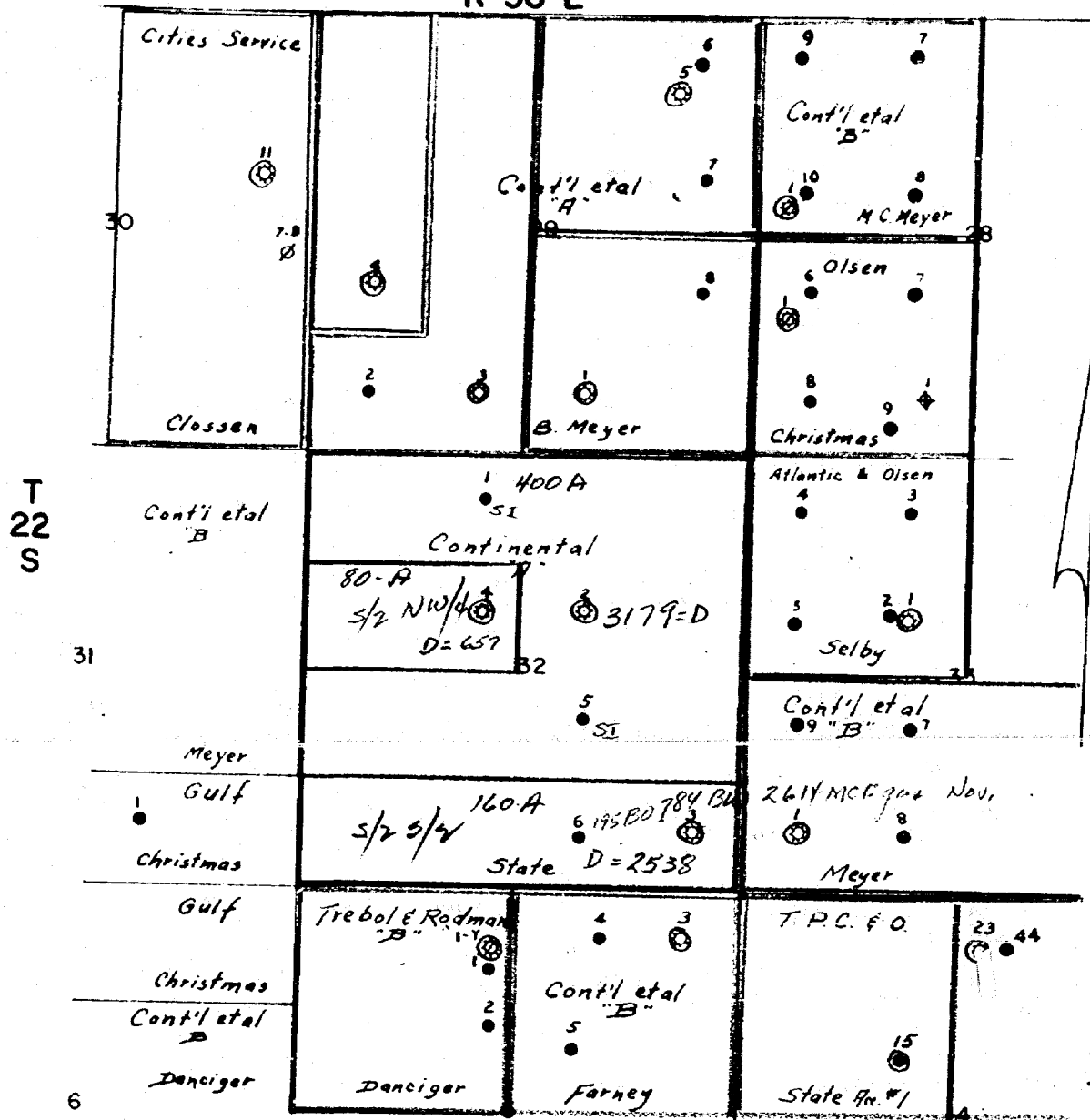
CONTINENTAL OIL COMPANY

EUNICE
N.M. DIST. OFFICE

SCALE 1" = 2000'

EXHIBIT 1

R-36-E



T
22
S

31

6

#3
upper TR
#6
lower TR
sep. by
shale break

185/2614,000
195.
644
585

CONTINENTAL OIL COMPANY

EUNICE
N. M. DIST. OFFICE

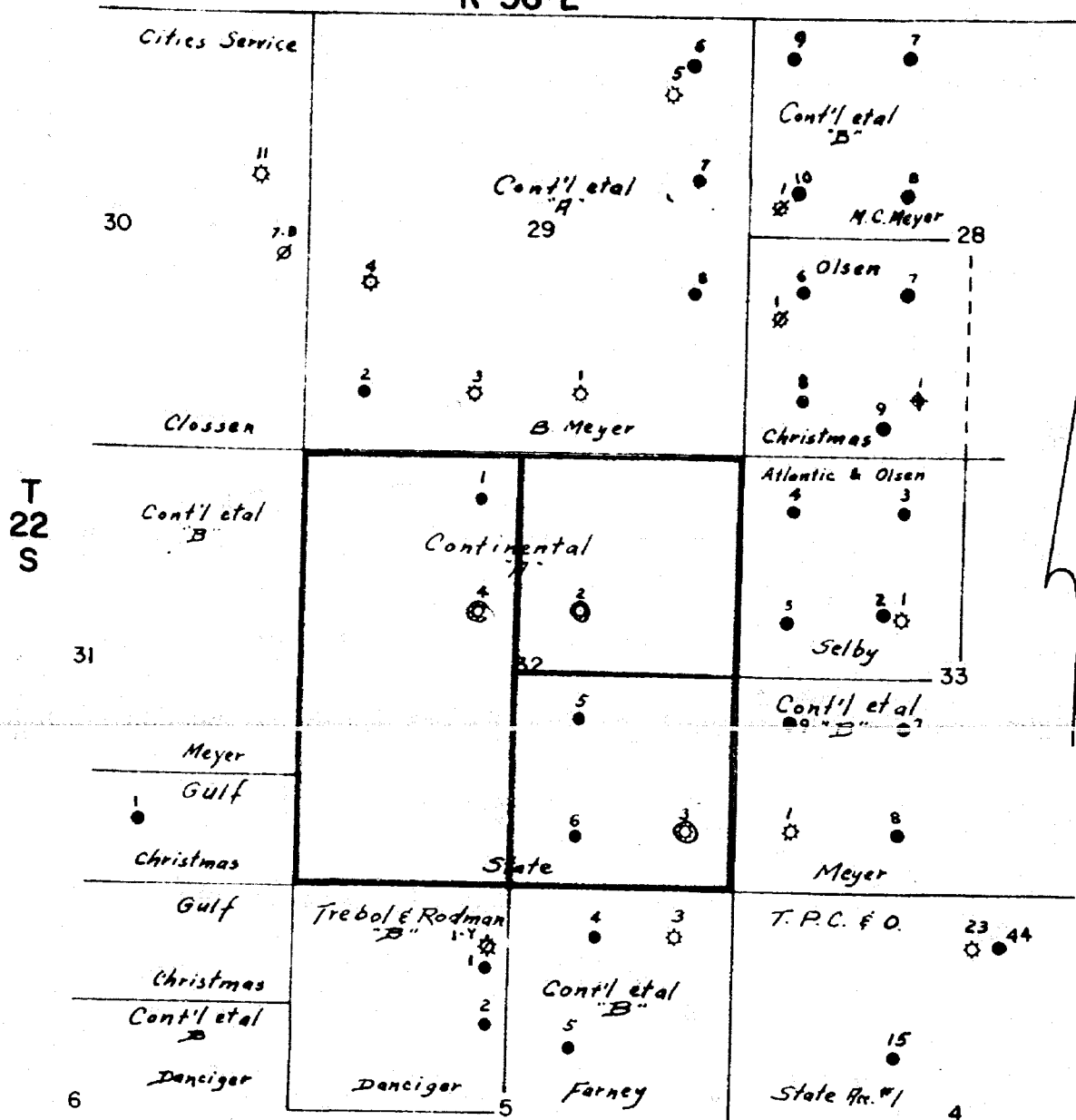
SCALE 1" = 2000'

all wells own prop.

BEFORE EXAMINED NUTTER
OIL CONSERVATION COMMISSION
Appl EXHIBIT NO. 2
CASE NO. 1889

EXHIBIT 2

R-36-E



CONTINENTAL OIL COMPANY

EUNICE
N. M. DIST. OFFICE

SCALE 1" = 2000'

BEFORE EXAMINED MUTTER
OIL CONSERVATION COMMISSION
App'd EXHIBIT NO. 1
CASE NO. 1889

EXHIBIT 1

NEW MEXICO OIL CONSERVATION COMMISSION
One Joint Back Pressure Test for Gas Wells
(Deliverability)

Form C-122-C
4-1-54

Pool Jalnat Formation Yates-Seven Rivers County Chaves
Initial Annual ☒ Special Date of test Feb 2 - 6, 1959
Company Continental Oil Company Lease State NM Well No. 2
Unit G Sec. 32 Twp. 22S Rge. 30E Purchaser El Paso Nat. Gas Company
Casing 5 1/2 Wt. 14 I.D. 5.012 Set at 3354 Perf. 3230 To 3354
Tubing None Wt. I.D. Set at Perf. To
Gas Pay: From 3230 To 3354 L 3230 x G .676 = GL 2183 Bar. Press. 13.2
Producing Thru: Casing ☒ Tubing Type Well Single
Single- Bradenhead-G.C. or G.C. Dual

FLOW DATA

| Started | | Taken | | Duration Hours | Type Taps | Line Size | Orifice Size | Static Press. | Differ- ential | Flow Temp. |
|---------|----------|-------|----------|-------------------|--------------|--------------|-----------------|------------------|-------------------|---------------|
| Date | time | Date | time | | | | | | | |
| 2-2 | 10:25 AM | 2-3 | 10:25 AM | 24 | Flg | 4" | 2.250 | 253 | 86.49 | 660-115 |
| | PM | | PM | | | | | | | |

FLOW CALCULATIONS

| Static Pressure P _f | Differ- ential h _w | Meter Extension $\sqrt{P_f h_w}$ | 24-Hour Coeff- icient | Gravity Factor F _g | Temp. Factor F _t | Compress- ability F _{pv} | Rate of Flow MCF/Da. @ 15.025 psia Q |
|--------------------------------------|-------------------------------------|--|-----------------------------|-------------------------------------|-----------------------------------|---|--|
| 266.2 | 86.49 | 151.74 | 33.10 | .9420 | .9943 | 1.027 | 4,831 |

SHUT-IN DATA

| Shut-in | | Press. Taken | | Duration Hours | Wellhead Pressure (P _c) psia | | W.H. Working Pressure (P _w) and (P _t) psia | |
|---------|----------|--------------|----------|-------------------|---|--------|---|--------|
| Date | Time | Date | Time | | Tubing | Casing | Tubing | Casing |
| 2-3 | 10:25 AM | 2-4 | 10:25 AM | 24 | | 546.2 | | |
| | PM | 2-5 | | 48 | | 553.2 | | |
| | | 2-6 | | 72 | | 556.2 | | 339.2 |

FRICITION CALCULATIONS(if necessary)

$$P_w^2 = 339.2^2 \div (.9002 \times 4,831)^2 (.139) = 117.7$$

$$P_w = 343.1$$

SUMMARY

P_c = 556.2 psia
Q = 4,831 MCF/Da.
P_w = 343.1 psia
P_d = 445.0 psia
D = 3,179 MCF/Da.

DELIVERABILITY CALCULATIONS

$$P_w = 343.1 \quad P_c = 556.2 \quad P_w + P_c = .6169$$

$$1 - \frac{P_w}{P_c} = .3831 \quad 1 + \frac{P_w}{P_c} = 1.6169 \quad \left(1 - \frac{P_w}{P_c}\right) \left(1 + \frac{P_w}{P_c}\right) = M = .6194$$

$$.36 + M = .5812 \quad \log 9.764325-10 \quad x(n) = .771$$

$$= 9.818295-10 +$$

$$\log Q = 3.684037$$

$$\log D = 13.502332-10$$

$$\text{Antilog} = 3179.3 = D$$

COMPANY Continental Oil Company
ADDRESS Box 68, Eunice, New Mexico
AGENT and TITLE J. H. [Signature]
WITNESSED
COMPANY

REMARKS

NMOCC-3 WEG HLJ RLA File-2

EXHIBIT B

EXHIBIT C

NEW MEXICO OIL CONSERVATION COMMISSION
One Joint Back Pressure Test for Gas Wells
(Deliverability)

Form C-122-C
4-1-54

Pool Jalnet Formation Yates-Seven Rivers County Lea
Initial Annual X Special Date of test Feb. 2 - 6, 1959
Company Continental Oil Company Lease State 4-32 Well No.
Unit F Sec. 32 Twp. 22 Rge. 16 Purchaser Continental Oil Co.
Casing 5 1/2 Wt. 14 I.D. 5.012 Set at 3638 Perf. 3388 To 3550
Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 3337 Perf. To
Gas Pay: From 3388 To 3550 L 3337 x G .669 = GL 2232 Bar. Press. 13.2
Producing Thru: Casing Tubing X Type Well Single
Single- Bradenhead-G.G. or G.O. Dual

FLOW DATA

| Started | | Taken | | Duration Hours | Type Taps | Line Size | Orifice Size | Static Press. | Differ- ential | Flow Temp. |
|---------|----------|-------|----------|-------------------|--------------|--------------|-----------------|------------------|-------------------|---------------|
| Date | time | Date | time | | | | | | | |
| 2-2 | 10:18 AM | 2-3 | 10:15 AM | 24 | Flg. | 4" | 1.250 | 254 | 53.29 | 74.0 |
| | PM | | PM | | | | | | | |

FLOW CALCULATIONS

| Static Pressure P_f | Differ- ential h_w | Meter Extension $\sqrt{P_f h_w}$ | 24-Hour Coeff- icient | Gravity Factor F_g | Temp. Factor F_t | Compress- ability F_{pv} | Rate of Flow MCF/Da. @ 15.025 psia Q |
|-----------------------------|----------------------------|--|-----------------------------|----------------------------|--------------------------|----------------------------------|--|
| 267.2 | 53.29 | 119.33 | 9.643 | .9470 | .9868 | 1.025 | 1,102 |

SHUT-IN DATA

| Shut-in | | Press. Taken | | Duration Hours | Wellhead Pressure (P_c) psia | | W.H. Working Pressure (P_w) and (P_t) psia | |
|---------|----------|--------------|----------|-------------------|-------------------------------------|--------|---|--------|
| Date | Time | Date | Time | | Tubing | Casing | Tubing | Casing |
| 2-3 | 10:15 AM | 2-4 | 10:15 AM | 24 | 583.2 | 583.2 | 280.2 | 318.2 |
| | PM | 2-5 | | 48 | 584.2 | 584.2 | | |
| | | 2-6 | | 72 | 585.2 | 585.2 | | |
| | | | PM | | | | | |

FRICTION CALCULATIONS (if necessary)

Not necessary

SUMMARY

$P_c = 585.2$ psia

$Q = 1,102$ MCF/Da.

$P_w = 318.2$ psia

$P_d = 408.2$ psia

$D = 657$ MCF/Da.

DELIVERABILITY CALCULATIONS

$P_w = 318.2$ $P_c = 585.2$ $P_w + P_c = .5437$

$1 - \frac{P_w}{P_c} = .4563$ $1 + \frac{P_w}{P_c} = 1.5437$ $\left(1 - \frac{P_w}{P_c}\right) \left(1 + \frac{P_w}{P_c}\right) = M = .7044$

$.36 + M = .5111$ $\log -1.708505$ $x (n) = .771$

$= -1.775257 +$

COMPANY Continental Oil Company
ADDRESS Box 68, Eunice, New Mexico
AGENT and TITLE [Signature]
WITNESSED
COMPANY

$\log Q = 3.042181$

$\log D = 2.817438$

Antilog = 656.8 = D

REMARKS

NMOEC-3
WEO HLJ RLA File-2

EXHIBIT 5
EXHIBIT 6

NEW MEXICO OIL CONSERVATION COMMISSION
One Joint Back Pressure Test for Gas Wells
(Deliverability)

Form C-122-C
4-1-54

Pool Jalnet Formation Yates-San Juan County Lea
 Initial _____ Annual X Special _____ Date of test Apr. 24-May 1, 1959
 Company Continental Oil Company Lease State 4-32 Well No. 3
 Unit P Sec. 32 Twp. 22 Rge. 36 Purchaser El Paso Nat. Gas Co.
 Casing 5 1/2 Wt. 144 I.D. 5.012 Set at 3539 Perf. 3210 To 3370
 Tubing None Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____
 Gas Pay: From 3210 To 3370 L 3210 x G .671 = GL 2154 Bar. Press. 13.2
 Producing Thru: Casing X Tubing _____ Type Well Single
 Single- Bradenhead-G.G. or G.O. Dual

FLOW DATA

| Started | | Taken | | Duration Hours | Type Taps | Line Size | Orifice Size | Static Press. | Differ- ential | Flow Temp. |
|---------|--------|-------|---------|-------------------|--------------|--------------|-----------------|------------------|-------------------|---------------|
| Date | time | Date | time | | | | | | | |
| 4-27 | 9:50AM | 4-28 | 9:50 AM | 24 | Flg. | 4" | 2.250 | 273 | 49.00 | 70 |
| | PM | | PM | | | | | | | |

FLOW CALCULATIONS

| Static Pressure P _f | Differ- ential h _w | Meter Extension √P _f h _w | 24-Hour Coeff- icient | Gravity Factor F _g | Temp. Factor F _t | Compress- ability F _{pv} | Rate of Flow MCF/Da. @ 15.025 psia Q |
|--------------------------------------|-------------------------------------|--|-----------------------------|-------------------------------------|-----------------------------------|---|--|
| 286.2 | 49.00 | 118.42 | 33.10 | .7456 | .9905 | 1.028 | 3774.4 |

SHUT-IN DATA

| Shut-in | | Press. Taken | | Duration Hours | Wellhead Pressure (P _c) psia | | W.H. Working Pressure (P _w) and (P _t) psia | |
|---------|---------|--------------|---------|-------------------|---|--------|---|--------|
| Date | Time | Date | Time | | Tubing | Casing | Tubing | Casing |
| 4-28 | 9:50 AM | 4-29 | 9:50 AM | 24 | | 514.2 | | |
| | | 4-30 | | 48 | | 520.2 | | |
| | | 5-1 | | 72 | | 524.2 | | 328.2 |
| | PM | | PM | | | | | |

FRICITION CALCULATIONS(if necessary)

$$P_w^2 = (328.2)^2 \div (.9002 \times 3.774)^2 (.138) = 109.31$$

$$P_w = 330.6$$

SUMMARY

P_c = 524.2 psia
 Q = 3.774 MCF/Da.
 P_w = 330.6 psia
 P_d = 419.4 psia
 D = 2.538 MCF/Da.

DELIVERABILITY CALCULATIONS

P_w 330.6 P_c 524.2 P_w + P_c .6307

$$1 - \frac{P_w}{P_c} = .3693 \quad 1 + \frac{P_w}{P_c} = 1.6307 \quad \left| 1 - \frac{P_w}{P_c} \right| \left| 1 + \frac{P_w}{P_c} \right| = M \quad .6022$$

$$.36 + M = .5978 \quad \text{Log } 9.77656 \quad x(n) = .771 \quad = 9.82773-10 +$$

COMPANY Continental Oil Company
 ADDRESS Box 68, Eunice, New Mexico
 AGENT and TITLE [Signature] Dist. Supt.
 WITNESSED _____
 COMPANY _____

Log Q = 3.57680
 Log D = 3.40453
 Antilog = 2.538.2 = D

REMARKS

NMDOC-3 WEG HLJ RLA File-2

EXHIBIT 4



CONTINENTAL OIL COMPANY

825 PETROLEUM BUILDING
ROSWELL, NEW MEXICO
January 7, 1960

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

New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

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

Re: Application of Continental
Oil Company for Reallocation
of Acreage for Gas Proration
Purposes to Its State A-32
Wells Nos. 2, 3 and 4 in
Section 32, T-22S, R-36E,
N.M.P.M., Jalmat Pool,
Lea County, New Mexico

Gentlemen:

Please find attached three copies of Continental Oil
Company's application for reallocation of acreage for gas
proration purposes to its State A-32 Wells Nos. 2, 3 and 4 in
Section 32, T-22S, R-36E, N.M.P.M., Lea County, New Mexico.

We respectfully request that this matter be set for
hearing at the earliest convenient date.

Yours very truly,

W. A. Mead

*Donkey
mailed
1-28-60 sh*
WAM-MH
Enc.

DOCKET: EXAMINER HEARING FEBRUARY 10, 1960Oil Conservation Commission - 9 a.m., Mabry Hall, State Capitol, Santa Fe

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

CASE 1889:

Application of Continental Oil Company for three non-standard gas proration units. Applicant, in the above-styled cause, seeks the cancellation of three existing non-standard units and the establishment of three non-standard gas proration units in the Jalmat Gas Pool, Lea County, New Mexico. One such unit is to comprise 400 acres, being the NE/4, N/2 NW/4 and the N/2 S/2 of Section 32, Township 22 South, Range 36 East. Another unit is to comprise 160 acres, being the S/2 S/2 of said Section 32. Another unit is to comprise 80 acres, being the S/2 NW/4 of said Section 32. The proposed units are to be dedicated respectively to the State, A-32 Wells Nos. 2, 3 and 4 all in said Section 32 and located respectively in the SW/4 NE/4, the SE/4, SE/4 and the SE/4 NW/4.

CASE 1890:

Application of Socony Mobil Oil Company, Inc. for permission to commingle the production from several separate pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle, after separate measurement, the production from the Penrose Skelly, Paddock, Blinbry Gas, Tubb Gas, Drinkard and Brunson Pools as well as production from the Montoya, Silurian and Simpson formations from all wells on its Brunson Argo Lease, consisting of the NE/4 of Section 9 and the NW/4 of Section 10, both in Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 1891:

Application of Val R. Reese & Associates, Inc. for extension of the Escrito-Gallup Oil Pool and for the promulgation of special rules and regulations governing said pool. Applicant, in the above-styled cause, seeks an order extending the Escrito-Gallup Oil Pool, Rio Arriba County, New Mexico, to include acreage in Sections 19 and 30, Township 24 North, Range 6 West, and acreage in Sections 24 and 25, Township 24 North, Range 7 West. Applicant also proposes the promulgation of special rules and regulations governing the drilling, spacing and allocation of allowables to oil wells and gas wells in said pool, including gas-oil ratio limitations.

- ✓
CASE 1892: Application of Texaco Inc. for approval of a unit agreement. Applicant, in the above-styled cause, seeks approval of its Remuda Basin Unit Agreement, which unit is to comprise approximately 8572 acres in Townships 22 and 23 South, Ranges 29 and 30 East, Eddy County, New Mexico.
- CASE 1893: Application of Petro-Atlas, Inc. for an order cancelling the over-production charged against one well in the South Blanco-Pictured Cliffs Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order cancelling the overproduction charged against the Aztec Well No. 1, located in the SE/4 NW/4 of Section 8, Township 27 North, Range 9 West, South Blanco-Pictured Cliffs Pool, San Juan County, New Mexico. Such overproduction was occasioned by applicant's delay in filing Form C-122-A.
- ✓
CASE 1894: Application of Robert N. Enfield for designation of a unit area. Applicant, in the above-styled cause, seeks a designation of the following-described 560 acres as the Southwest Mescalero Unit Area: Section 32, E/2 NE/4; Section 33, S/2 and NW/4, Township 10 South, Range 32 East, Lea County, New Mexico.
- ✓
CASE 1895: Application of Northwest Production Corporation for a non-standard gas unit. Applicant, in the above-styled cause, seeks an order establishing a 160-acre non-standard gas unit in an undesignated Pictured Cliffs pool consisting of the N/2 SE/4, NE/4 SW/4, and SE/4 NW/4 of Section 21, Township 26 North, Range 2 West, Rio Arriba County, New Mexico. Said unit is to be dedicated to a well to be drilled in either the NE/4 SE/4 of the NW/4 SE/4 of said Section 21.
- ✓
CASE 1896: Application of Mountain States Petroleum Corporation for a non-standard gas unit for an unorthodox gas well location. Applicant, in the above-styled cause, seeks the establishment of a 181-acre non-standard gas unit adjacent to the Pine Lake-Pictured Cliffs Gas Pool consisting of all of Section 30, Township 26 North, Range 2 West, Rio Arriba County, New Mexico. Said unit is to be dedicated to the Federal 30-F Well, to be located at an unorthodox location 790 feet from the South line and 750 feet from the West line of said Section 30.

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

February 29, 1960

C
O
P
Y

Mr. Jason Kellahin
Box 1712
Santa Fe, New Mexico

Dear Mr. Kellahin:

On behalf of your client, Continental Oil Company,
we enclose two copies of Order R-1612 in Case 1889
issued by the Oil Conservation Commission on February
26, 1960.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

CCC Heller

**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. 1889
Order No. R-1612**

**APPLICATION OF CONTINENTAL OIL
COMPANY FOR THREE NON-STANDARD
GAS PRORATION UNITS IN THE
JALMAT GAS POOL, LEA COUNTY,
NEW MEXICO**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 10, 1960, at Santa Fe, New Mexico, before Daniel S. Mutter, 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 26th day of February, 1960, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Mutter, 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 applicant, Continental Oil Company, is the owner and operator of Section 32, Township 22 South, Range 36 East, NMPN, Lea County, New Mexico.
- (3) That the applicant presently has the following-described non-standard Jalmat gas proration units in said Section 32:
 - (a) A 320-acre non-standard gas proration unit consisting of the W/2 of said Section 32 and dedicated to the State A-32 Well No. 4, located in the SE/4 NW/4 of said Section 32.
 - (b) A 160-acre non-standard gas proration unit consisting of the NE/4 of said Section 32 and dedicated to the State A-32 Well No. 2, located in the SW/4 NE/4 of said Section 32.

-2-

Case No. 1889

Order No. R-1612

(c) A 160-acre non-standard gas proration unit consisting of the SE/4 of said Section 32 and dedicated to the State A-32 Well No. 3, located in the SE/4 SE/4 of said Section 32.

(4) That the applicant proposes that the above-described non-standard gas proration units in the Jalmat Gas Pool be cancelled and the following-described non-standard gas proration units established:

(a) A 400-acre non-standard gas proration unit consisting of the NE/4 and the N/2 NW/4 and the N/2 S/2 of said Section 32, to be dedicated to the State A-32 Well No. 2, located in the SW/4 NE/4 of said Section 32.

(b) An 80-acre non-standard gas proration unit consisting of the S/2 NW/4 of said Section 32, to be dedicated to the State A-32 Well No. 4, located in the SE/4 NW/4 of said Section 32.

(c) A 160-acre non-standard gas proration unit consisting of the S/2 S/2 of said Section 32, to be dedicated to the State A-32 Well No. 3, located in the SE/4 SE/4 of said Section 32.

(5) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the following-described non-standard gas proration units in the Jalmat Gas Pool, Lea County, New Mexico, be and the same are hereby established, and those units in conflict therewith are hereby cancelled:

(a) A 400-acre non-standard gas proration unit consisting of the NE/4, the N/2 NW/4 and the N/2 S/2 of Section 32, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico, said unit to be dedicated to the State A-32 Well No. 2, located in the SW/4 NE/4 of said Section 32.

(b) An 80-acre non-standard gas proration unit consisting of the S/2 NW/4 of said Section 32, to be dedicated to the State A-32 Well No. 4, located in the SE/4 NW/4 of said Section 32.

(c) A 160-acre non-standard gas proration unit consisting of the S/2 S/2 of said Section 32, to be dedicated to the State A-32 Well No. 3, located in the SE/4 SE/4 of said Section 32.

(2) That each of the above-described wells be and the same is hereby assigned an acreage factor for allowable purposes in the proportion that the acreage in the non-standard unit dedicated to it bears to the acreage in a standard gas proration unit in the Jalmat Gas Pool.

-3-

Case No. 1889
Order No. R-1612

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

John Burroughs

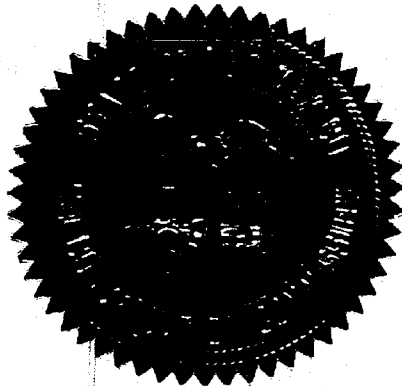
JOHN BURROUGHS, Chairman

Murray E. Morgan

MURRAY E. MORGAN, Member

A. L. Porter, Jr.

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



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BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 1889: Application of Continental Oil Company
for three non-standard gas proration units.

TRANSCRIPT OF HEARING

FEBRUARY 10, 1960

NEW MEXICO OIL CONSERVATION COMMISSION

Examiner hearing - Daniel S. NutterSanta Fe, NEW MEXICOREGISTERHEARING DATE February 10, 1960 TIME: 9 a.m.

| NAME: | REPRESENTING: | LOCATION: |
|-----------------------|-----------------------|-------------------|
| <i>H. D. Farris</i> | <i>T. J. A.</i> | <i>Midland</i> |
| D. D. FARRIS | TEXACO INC | MIDLAND |
| F. X. Markovic | Telaco Inc | Midland |
| <i>Q. L. Westlake</i> | " " | " |
| Q. L. Westlake | " " | " |
| Jason Kellah | Kellah & Fox | Santa Fe, N.M. |
| Bernard H. Errebo | | Albuquerque, N.M. |
| Joe Gordon Jr | Mobil | Hobbs |
| John E. Collins | Std. Oil Co. of Texas | Houston |
| John A Queen | Continental Oil | Roswell |
| Malcolm D. Colberg | Northwest Prod. Corp | Albuquerque |
| Geo H. Varsity | Petro Atlas | Farmington |
| Norman Grove | " " | Tulsa |
| | | " |

BEFORE THE
OIL CONSERVATION COMMISSION

IN THE MATTER OF:

Application of Continental Oil Company for three non-standard gas proration units. Applicant, in the above-styled cause, seeks the cancellation of three existing non-standard units and the establishment of three non-standard gas proration units in the Jalmat Gas Pool, Lea County, New Mexico. One such unit is to comprise 400 acres, being the NE/4 N/2 NW/4 and the N/2 S/2 of Section 32, Township 22 South, Range 36 East. Another unit is to comprise 160 acres, being the S/2 S/2 of said Section 32. Another unit is to comprise 80 acres, being the S/2 NW/4 of said Section 32. The proposed units are to be dedicated respectively to the State A-32 Wells Nos. 2, 3 and 4 all in said Section 32 and located respectively in the SW/4 NE/4, the SE/4 SE/4 and the SE/4 NW/4.

CASE NO.
1889

BEFORE:

Daniel S. Nutter, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: The hearing will come to order, please.

The first case this morning will be Case No. 1889.

MR. PAYNE: Case 1889. Application of Continental Oil Company for three non-standard gas proration units.

MR. KELLAHIN: If the Commission please, Jason Kellahin, Kellahin and Fox, Santa Fe, representing the applicant. We will have one witness, Mr. John Queen.

(Witness sworn.)

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JOHN QUEEN

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A John A. Queen.

Q By whom are you employed and in what position?

A By Continental Oil Company, division engineer for the New Mexico division.

Q Have you previously testified before the Commission as a petroleum engineer and had your qualifications accepted?

A I have.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, sir. Please proceed, Mr. Kellahin.

Q (By Mr. Kellahin) Mr. Queen, are you familiar with the application in Case 1889 now before the Commission?

A I am.

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

A The State A-32 has three producing Jalmat gas wells, and we wish to reallocate the acreage assigned to each one of these to obtain a more equitable allowable for these wells.

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Q Now, referring to what has been marked as Exhibit 1, would you discuss that exhibit, please?

A Exhibit No. 1 is a location and ownership plat showing the State A-32 Lease and the area surrounding the State A-32 Lease is shown to consist of all of Section 32 in 22 South, 36 East. There are three Jalmat gas wells and are shown circled in red, being the State A-32 Nos. 2, 3, and 4. Gas proration units that are now assigned to these wells are shown outlined in green. The unit for the No. 2 well consists of the NE/4 of Section 32; the unit for the No. 3 well consists of the SE/4 of Section 3, and the unit for the No. 4 well consists of the W/2 of Section 32.

Q Now, referring to what has been marked as Exhibit 2, will you discuss the units which are proposed to be formed?

A Exhibit No. 2 is a plat showing the State A-32 lease again, and the area surrounding it, with the present units, Jalmat gas units outlined in green in the surrounding area.

It is proposed that the S/2 of the NW/4 be assigned to Well No. 4, and the S/2 of the S/2 of Section 32 to be assigned to No. 3, and the remaining acreage of Section 32 to be assigned to the No. 2 well.

Q Now, referring to what has been marked as Exhibit No. 3, will you discuss that exhibit?

A Well, if I may, Exhibits 3, 4 and 5 are the new New Mexico's Oil Conservation forms for the deliverability tests as conducted in the Jalmat pool. These three exhibits show the

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present deliverability of each one of these wells, showing that the No. 4 well has the lowest deliverability and the No. 2 well has the highest deliverability.

Q Now, what is the present status of the wells involved?

A The present status of the three wells are that they are all overproduced. This was caused by the No. 4 well being reclassified in July of 1958 from a marginal to non-marginal well at the time the deliverability formula was enacted. On this basis, a large amount of what would be called overproduction, when it was reclassified, was charged against this well. As shown on Exhibit No. 5, this well has a very low deliverability, and as soon as the well makes up this overproduction, it will immediately fall behind carrying the acreage it now has.

Q Will the well be able to make up the overproduction, in your opinion?

A The well probably would not make up its overproduction, no, sir.

Q Do I understand your testimony correctly that the overproduction was accumulated when the accumulation was made solely on the basis of acreage?

A That is correct.

Q And with the deliverability factor in the formula, is the well a marginal or non-marginal well?

A Based on this one use of deliverability alone and as soon as the well makes up its allowable, in my opinion, it will



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be classified as a marginal well.

Q What is the situation as to the other two wells?

A The other two wells are also overproduced. The No. 2 Well is the least amount overproduced, however it has been restricted. They are capable of carrying their larger assignment of acreage as shown in the difference between Exhibit 1 and Exhibit 2. I would like to clarify that statement in that the No. 3 Well will have the same number of acreage. A hundred and sixty acres under its present unit acreage and one hundred sixty under the proposed, a different area though.

Q Now, Mr. Queen, at the present time and under the present allocation, there does exist dual dedication of acreage in this unit, in this section, does it not?

A Yes, sir.

Q What is the status of the oil wells located in Section 32?

A There are three. I should say there were three oil producing wells, the State A-32 Nos. 1, 5, and 6. The No. 1 and 5 wells are shut down and do not produce. The No. 6 well produces from the Jalmat horizon also, and in November of 1959, produced one hundred and ninety-five barrels of oil, and seven hundred and eighty-four barrels of water, and two thousand six hundred fourteen MCF of gas.

Q Now, the No. 6 and the No. 3 and the No. 5 wells presently have dedicated to them similar acreage?



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A That is correct, sir. Beg Pardon, sir, the No. 5 well is a shut down well, therefore, it has no acreage dedicated to it.

Q But the No. 6 would have a 40-acre unit dedicated to it which would lie in the same unit as the acreage dedicated to the No. 3 gas well?

A That is correct. That was correct before this request and we request it be the same.

Q Is the No. 6 well completed in the same interval as the No. 3 well?

A No, sir.

Q What is the difference, Mr. Queen?

A The No. 3 well is completed in the upper part of the Seven Rivers formation and the No. 6 well is completed in the lower part of the Seven Rivers formation, and they are definitely separated by a shale break.

Q Now, that is the situation as to the acreage dedicated which exists through the Jalmat pool?

A That is correct, I do not recall the exact number, but there are in excess of one hundred dual dedications in the Jalmat pool due to the same reason.

Q In the event the application of Continental Oil Company is approved in this case, will it result, in your opinion, in a more equitable distribution of the acreage to the producing wells?



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A We think it will. I would like to point out that under the spacing provisions of Order R-520, the location of the wells would permit 160 acres to the No. 3 well, which we have requested by administrative procedure. Also, the location of the No. 2 would permit the assignment of the entire section to the No. 2 well as a standard unit by administrative procedure. This would provide, in fact, the maximum allowable for the lease. That is, if we were to assign the entire 640 acres to the No. 2 Well, Continental Oil Company would receive a maximum allowable due to the deliverability formula. However, to secure a more efficient drainage and to avoid the necessity of shutting in wells No. 3 and 4, we would prefer the proposed reallocation. This would permit the wells No. 2, 3 and 4 to produce to depletion.

Q In your opinion, would that prevent waste and result in the greater ultimate recovery of gas?

A Yes, sir, I think it would.

Q Were Exhibits 1 through 4 prepared by you or under your direction and supervision?

A They were.

Q One through five?

A They were, sir.

MR. KELLAHIN: At this time we would like to offer in evidence Exhibits 1 through 5 inclusive.

MR. NUTTER: Continental Exhibits 1 through 5 will be entered.



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MR. KELLAHIN: That's all we have, Mr. Nutter.

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

MR. PAYNE: Yes.

MR. NUTTER: Mr. Payne.

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Queen, the State is the royalty owner of the entire Section 32 --

A Yes, sir,

Q --so there is no particular reason why the well should be brought into balance prior to the issuance of an order in this case?

A No, sir.

Q Mr. Queen, do you feel that the Continental A-32 well No. 3 will efficiently drain the W/2 of the proposed unit?

A Mr. Payne, it would be very difficult to draw, to assign acreage allocation -- to state what one well will drain. With three wells so spaced on a 640-acre section, we feel like these three wells will effectively drain this section. Based on the common theory of gas migration, we would say that the No. 3 would drain --

Q You would have to rely on counter drainage?

A Yes, sir.

Q Perhaps this Trebol & Rodman will actually be getting some of your gas from the W/2 of the proposed unit?



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A Yes, sir, this is not the first time someone else has gotten some of our gas.

Q Now, do you feel that the No. 2 well will be able to make a 40-acre allowable?

A Yes, sir, the deliverability on that well is, as I recall, about 3,200 MCF per day, and its a very good well, it makes negligible amounts of fluids, and I feel like that well would make a 640-acre allowable for a considerable period of time, so I see no reason why it would not make a 400-acre allowable.

Q What do you contemplate as the producing life of the No. 4 well? The one that has the lowest deliverability?

A Well, it would be several years. We have not run any pressure decline to try to anticipate when this well would reach its economic life. A great number of these wells in this pool that will produce a certain rate of gas do so because of the permeability, but when this rate is reached, they will have what we call a flat decline, so it may be a great number of years before it is depleted, but this is -- I'm not prepared to testify as to the estimated number of years according to my opinion.

Q Now, Mr. Queen, there are instances of dual dedication directly offsetting Section 32, aren't there?

A Yes, sir, numerous. All of the wells, I believe, shown on this map, on this Exhibit 2, are Jalmat oil wells. I



have the production on a few of these wells and we checked several of them to be sure, and it is my belief that all of them are Jalmat oil wells, but I could testify as to several of them that are immediate offsets.

Q Now, what led you to believe, Mr. Queen, that the W/2 of Section 32 is productive of gas from the Jalmat?

A Well, we did not try to justify or prove what was productive as to gas production as this time, since this section has previously to this time been assigned a full 640-acre gas unit. I can testify to the fact that the structural contours in this area run northeast to southwest in Section 30. There is a gas well there, and as previously testified, the Trebol & Rodman, I believe, it is called, the No. "Y" is a gas well and if you observe, the contour lines of which we do not have a structure map here, they have indicated that the entire section was quite productive, however, we did not intend to prove this or disprove this because of the previous allocation.

MR. PAYNE: I see. Thank you.

MR. NUTTER: Any further questions?

EXAMINATION BY MR. NUTTER:

Q Mr. Queen, you stated that the No. 6 well was completed in the lower Seven Rivers?

A Mr. Nutter, I am not as thorough with my log interpretation in tops of formations as I should be. I have the log on the No. 3 well and on the No. 6 well here, and there is a

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definite shale break or interval between the two zones. The No. 6 well, as I testified, produces seven hundred eighty-four barrels of water per day, which is something like twenty-five barrels of water per day. The No. 3 well does not produce any particular quantity of water per day. Therefore, this must be that they are not open in the same interval. The No. 3 well does not produce any oil either. I should have said fluid on No. 3.

Q Well now, the No. 6, if it were completed in the lower Seven Rivers as you stated, it would be classified as a Langley Mattix well, wouldn't it?

A Well, as I understand it, the Jalmat pool goes from the top of the Tensile formation to about one hundred feet above the base of the Seven Rivers, and the Seven Rivers is, I believe, as I recall, is over one hundred foot thick, so it still would be in the Seven Rivers. Possibly I should testify in the middle Seven Rivers.

Q In the middle Seven Rivers?

A Yes, more accurately.

Q There is a separate separation between the interval that the No. 3 is completed and the interval in which the No. 6 is completed?

A Yes, sir, there is no direct communication between those two wells.

MR. NUTTER: Any further questions of Mr. Queen?



He may be excused.

(Witness excused.)

MR. NUTTER: Does anyone have anything further they wish to offer in Case 1889? Take the case under advisement and take up Case 1890.

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STATE OF NEW MEXICO)
) ss
 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 Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 22nd day of February, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
 Notary Public

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1889 heard by me on 2-10, 1960.

Joseph A. Trujillo, Examiner
 New Mexico Oil Conservation Commission

