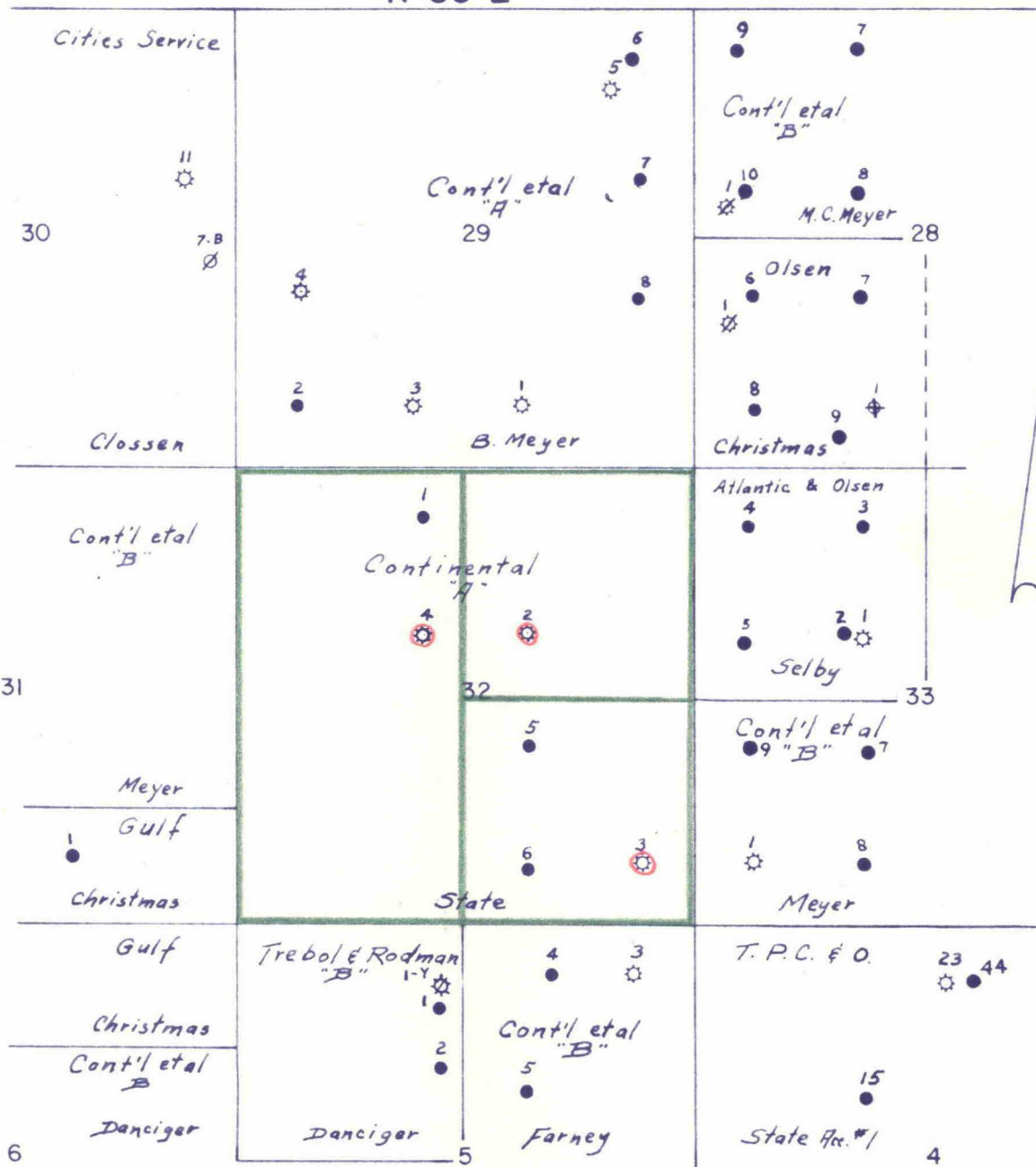


R-36-E

T
22
S



CONTINENTAL OIL COMPANY

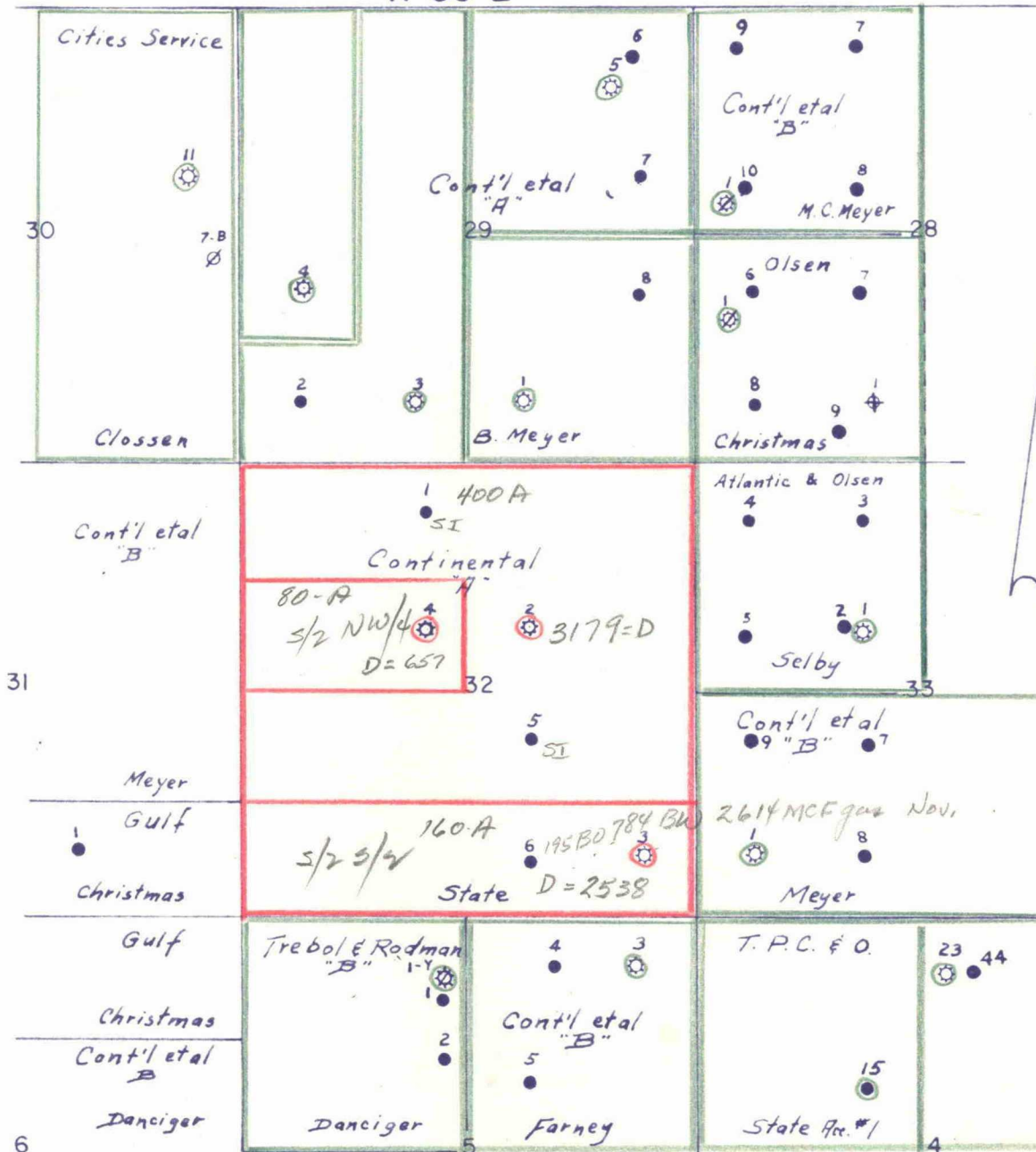
EUNICE
N. M. DIST. OFFICE

SCALE 1" = 2000'

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
Appl	EXHIBIT NO. 1
CASE NO.	1889

R-36-E

T
22
S



3
upper TR
6
lower TR
sep. by
shale break

195 / 2614,000
195
664
585

CONTINENTAL OIL COMPANY

EUNICE
N. M. DIST. OFFICE

SCALE 1" = 2000'

all wells over prod.

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

EXHIBIT 2

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

Form C-122-C
4-1-54

Pool Jalmat Formation Yates-Seven Rivers County Blanco
Initial Annual X Special _____ Date of test Feb 2 - 6, 1959
Company Continental Oil Company Lease State 4-32 Well No. 2
Unit G Sec. 32 Twp. 22S Rge. 36E Purchaser Blanco 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 X Tubing _____ Type Well Single
Single- Bradenhead-G.G. 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
	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
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	10:25 AM	48		553.2		339.2
		2-6		72		556.2		

FRICTION CALCULATIONS (if necessary)

$$P_w^2 = 339.2^2 - (.9943 \times 4,831)^2 (.139) = 117.7$$

$$P_w = 343.1$$

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.
= 9.818295-10 +

DELIVERABILITY CALCULATIONS

P_w 343.1 P_c 556.2 P_w + P_c .6169

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

$$.36 + M = .5812 \quad \text{Log } 9.704325-10 \quad x (n) = .771$$

COMPANY Continental Oil Company
ADDRESS Box 68, Eunice, New Mexico
AGENT and TITLE J. H. Lash
WITNESSED _____
COMPANY _____

Log Q = 9.684037
Log D = 13.502332-10
Antilog = 3179.3 = D

REMARKS

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 Apr. 24-May 1, 1959
Company Continental Oil Company Lease State A-32 Well No. 3
Unit P Sec. 32 Twp. 22 Rge. 36 Purchaser El Paso Nat. Gas Co.
Casing 5 1/2 Wt. 14# 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							
<u>4-27</u>	<u>9:50AM</u>	<u>4-28</u>	<u>9:50 AM</u>	<u>24</u>	<u>Flg.</u>	<u>4"</u>	<u>2.250</u>	<u>273</u>	<u>49.00</u>	<u>70</u>
	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
<u>286.2</u>	<u>49.00</u>	<u>118.42</u>	<u>33.10</u>	<u>.9456</u>	<u>.9905</u>	<u>1.028</u>	<u>3774.4</u>

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
<u>4-28</u>	<u>9:50 AM</u>	<u>4-29</u>	<u>9:50 AM</u>	<u>24</u>		<u>514.2</u>		
	PM	<u>4-30</u>		<u>48</u>		<u>520.2</u>		<u>328.2</u>
		<u>5-1</u>		<u>72</u>		<u>524.2</u>		
			PM					

FRICTION CALCULATIONS(if necessary)

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

$$P_w = 330.6$$

SUMMARY

P_c = 324.2 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

$$1 - \frac{P_w}{P_c} = .2093 \quad 1 + \frac{P_w}{P_c} = 1.6307 \quad \left(1 - \frac{P_w}{P_c}\right) \left(1 + \frac{P_w}{P_c}\right) = M \quad .6622$$

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

Log Q = 3.57680

Log D = 3.40453

Antilog = 2,538.2 = D

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

REMARKS

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

Form C-122-C
4-1-54

Pool Jelmat Formation Yates-Seven Rivers County DeSoto
Initial _____ Annual X Special _____ Date of test Feb. 2 - 6, 1959
Company Continental Oil Company Lease State #32 Well No. 4
Unit F Sec. 32 Twp. 22 Rge. 36 Purchaser KNOX Nat'l Gas 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.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	10:15 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	10:15 AM	48	584.2	584.2		
		2-6	10:15 AM	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 = 400.2 psia

D = 657 MCF/Da.

DELIVERABILITY CALCULATIONS

P_w 318.2 P_c 585.2 P_w + P_c .5437

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

$$.36 + M = .5111 \quad \text{Log } -1.775257 \quad x (n) = .771 \quad = -1.775257 +$$

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

NMOCC-3
WEO HLJ RLA File-2

REMARKS

EXHIBIT 5

EXHIBIT 6