NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

DUPLICATE

HOBBS OFFICE OCC

1960 MAR 22 PM 3:26

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Moore-Wolfcamp** Formation **Wolfcamp** County **Lea**

Initial **x** Annual ____ Special ____ Date of Test **March 10-15, 1960**

Company **TEXACO Inc.** Lease **St. of N.M. "BN" NCT-1** Well No. **1**

Unit **L** Sec. **25** Twp. **11-S** Rge. **32-E** Purchaser **No Connection**

Casing **5½** Wt. **15.50** I.D. **4.95** Set at ____ Perf. **8234 / 8302** To **8260 / 8345**

Tubing **2-3/8** Wt. **4.70** I.D. **1.995** Set at **8353** ~~Perf.~~ ____ To ____

Gas Pay: From **8234** To **8345** L ~~**8289**~~ 8250 ~~**.727**~~ 6 .669 -GL ~~**6026**~~ 5508 Bar.Press. **13.2**

Producing Thru: Casing **x** Tubing ____ Type Well **Gas-Oil, Dual**
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: **2-17-60** Packer **8168 / 9630** Reservoir Temp. ____

OBSERVED DATA

Tested Through ~~[illegible]~~ ~~([illegible])~~ (Meter) Type Taps **Flange**

No.	Flow Data: ~~[illegible]~~ (Line) Size	Flow Data: ~~[illegible]~~ (Orifice) Size	Flow Data: Press. psig	Flow Data: Diff. h_w	Flow Data: Temp. °F.	Tubing Data: Press. psig	Tubing Data: Temp. °F.	Casing Data: Press. psig	Casing Data: Temp. °F.	Duration of Flow Hr.
SI								1705		
1.	3.068	1.500	85	14	44			1632	74	3
2.	3.068	1.500	88	71	27			1479	72	3
3.	3.068	2.125	85	34	18			1416	70	3
4.	3.068	2.125	85	74	8			1204	71	3
5.	3.068	1.500	85	12	40			1620	70	20

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	14.36	37.07	98.2	1.0157	.9219		498
2.	14.36	84.76	101.2	1.0333	.9219		1159
3.	31.97	57.78	98.2	1.0430	.9219		1775
4.	31.97	85.24	98.2	1.0540	.9219		2648
5.	14.36	~~33.32~~ 34.32	98.2	1.0198	.9219		~~449~~ 462

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio **113,000** cf/bbl.
Gravity of Liquid Hydrocarbons **71** deg.
F_c **1.758** $(1-e^{-s})$ ~~**.339**~~ .311

Specific Gravity Separator Gas **.706**
Specific Gravity Flowing Fluid **.727**
P_c **1718.2** P_c^2 **2952**

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	1645.2	2707	.875	.7656	~~.2595~~ .238	2707	245	1645	.9575
2.	1492.2	2227	2.037	4.149	~~1.406~~ 1.29	2228	724	1493	.8690
3.	1429.2	2042	3.120	9.734	~~3.300~~ 3.03	2045	907	1430	.8324
4.	1217.2	1481	4.655	21.67	~~7.346~~ 6.74	1488	1464	1220	.7101
5.	1633.2	2667				2667	285	1633	.9505

Absolute Potential: **3,900** MCFPD; n **.926**
COMPANY **TEXACO Inc.**
ADDRESS **Box 1270**
AGENT and TITLE **F. W. Moore, District Gas Foreman**
WITNESSED ____
COMPANY ____

REMARKS

High Condensate Gravity partly due to the Low Operating Temperature of the Separator. H_2S - Sweet

Well originally completed in the Pennsylvanian, recently completed as a dual in the Wolfcamp.

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w). MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia

P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressability factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t.