Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool __EUMONT__   Formation __QUEEN SAND__   County __LEA__

Initial __X__   Annual _____   Special _____   Date of Test __5-30-61__

Company __CHAMBERS & KENNEDY__   Lease __MONUMENT STATE__   Well No. __1__

Unit __J__ Sec. __34__ Twp. __19S__ Rge. __37E__   Purchaser __NOT TIED IN__

Casing 5-1/2" Wt. 14.0 / 15.5 I.D. 5.012 / 4.950 Set at 3964' Perf. 3584 To 3700'

Tubing 2-1/2" Wt. 6.50 I.D. 2.441 Set at 3729' Perf. 3722' To _____

Gas Pay: From __3584'__ To __3700'__ L __3584__ xG __.650__ -GL __2330__ Bar.Press. __13.2__

Producing Thru: Casing _____ Tubing __X__ Type Well __G.O. DUAL__

Date of Completion: __5-18-61__ Packer __3725__ Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. __99__

OBSERVED DATA

Tested Through (Prover) (XXXXX) (XXXXX)   Type Taps __CRITICAL FLOW PROVER__

No.	(Prover) XXXXX Size	XXXXXXX (Orifice) Size	Press. PROVER psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. P_w psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						500		567		S.I. 72 HRS.
1.	2"	5/16"	476	-	78	477	78	511		3 HRS.
2.	2"	7/16"	368	-	76	370	77	457		3 HRS.
3.	2"	5/8"	265	-	74	268	74	393		3 HRS. 15 MIN.
4.	2"	3/4"	190	-	72	194	73	372		3 HRS.
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure (PROVER) psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	2.1577	-	489.2	.9831	.9608	1.045	1042
2.	4.3957	-	381.2	.9850	.9608	1.034	1641
3.	8.3555	-	278.2	.9868	.9608	1.025	2259
4.	12.2023	-	203.2	.9887	.9608	1.019	2400
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio __NONE__ cf/bbl.
Gravity of Liquid Hydrocarbons __--__ deg.
F_c _____ $(1-e^{-s})$ _____

Specific Gravity Separator Gas __.650__
Specific Gravity Flowing Fluid __-__
P_c __530.2__ P_c^2 __336.6__

No.	P_w / P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2 (1-e^{-s})$	P_w^2	$P_c^2 - P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	524.2					274.8	61.8		
2.	470.2					221.1	115.5		
3.	406.2					165.0	171.6		
4.	385.2					148.4	188.2		
5.									

Absolute Potential: __3750__   MCFPD; n __.75221__

COMPANY __CHAMBERS & KENNEDY__
ADDRESS __607 MIDLAND NATIONAL BANK - MIDLAND, TEXAS__
AGENT and TITLE __APEX ENGINEERING COMPANY - BY: Harry E. Legendre__
WITNESSED _____
COMPANY _____

REMARKS

WELL FLOWING THROUGH TUBING FOR TEST, CASING NOT SEALED. LOWER ZONE SEALED OFF BY SIDE DOOR CHOKE ASSEMBLY AT 3722'.

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.