

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Yates-Seven Rivers-Queen County Lea
Initial _____ Annual x Special _____ Date of Test 9-30-56
Company Stanolind Oil and Gas Company Lease O.J. Gillyully "B" Well No. 6-X
Unit A Sec. 21 Twp. 20-S Rge. 37-E Purchaser Permian Basin Pipeline Company
Casing 5-1/2" Wt. 17.0# I.D. 4.892" Set at 3776' Perf. 2678' To 3495'
Tubing 2" Wt. 4.7# I.D. 1.995" Set at _____ Perf. _____ To _____
Gas Pay: From 2678' To 3495' L 2678' xG 0.685 -GL 1834' 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: 9-2-54 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Pressure~~) (~~Orifice~~) (Meter) Type Taps Pipe

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1061.2		68-1/4
1.	4"	2.50	465.4	4.5	79			1011.1		26-3/4
2.	4"	2.50	475.7	11.6	72			957.4		24
3.	4"	2.50	485.4	20.2	52			891.6		24
4.	4"	2.50	493.6	31.6	53			813.5		24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	54.44	46.11		0.9822	0.9359	1.040	2400
2.	54.44	75.31		0.9887	0.9359	1.043	3957
3.	54.44	100.4		1.0078	0.9359	1.052	5423
4.	54.44	126.6		1.0068	0.9359	1.053	6838
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.812 (1-e^{-s}) 0.119
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1074.4 P_c 1154.3

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	P _w P _c
1.	1024.3	1049.2	4.349	18.91	2.250	1051.5	102.8	1025.4	.95
2.	970.6	942.1	7.170	51.41	6.118	948.2	206.1	973.8	.91
3.	904.8	818.7	9.826	96.55	11.49	830.2	324.1	911.2	.85
4.	826.7	683.4	12.39	153.5	18.27	701.7	452.6	837.7	.78
5.									

Absolute Potential: 13170 MCFPD; n 0.70
COMPANY Stanolind Oil and Gas Company
ADDRESS Box 68 - Hobbs, New Mexico
AGENT and TITLE _____
WITNESSED _____
COMPANY _____

REMARKS

LEWIS A. ...
GAS ENGINEER

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 .