Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool __Jalmat__ Formation __Yates + 8R__ County __Lea__

Initial_____ Annual_____ Special __x__ Date of Test __5-6/5-10 1957__

Company __Cities Service Oil Co.__ Lease __State AS__ Well No. __1__

Unit __F__ Sec. __2__ Twp. __24__ Rge. __36__ Purchaser __El Paso Natural Gas Co.__

Casing __5½__ Wt. __14.0__ I.D._____ Set at __3289__ Perf. __2996__ To __3218__

Tubing __2 3/8__ Wt. __4.7__ I.D._____ Set at __3192__ Perf._____ To_____

Gas Pay: From __2996__ To __3218__ L __3192__ xG __0.675__ GL __2155__ Bar.Press. __12__

Producing Thru: Casing_____ Tubing __x__ Type Well __Single__
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: __2-7-56__ Packer_____ Reservoir Temp._____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)   Type Taps __Flange__

No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Temp. °F.	Casing Data Press. psig	Temp. °F.	Duration of Flow Hr.
SI						754		754		72
1.	4"	1.250"	548	8.41	94	730		735		24
2.	4"	1.250"	519	17.22	92	717		726		24
3.	4"	1.250"	521	23.04	88	704		720		24
4.	4"	1.250"	522	46.24	87	684		707		24
5.										

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.	9.643	68.69		.9688	.9427	1.050	634
2.	9.643	95.72		.9715	.9427	1.050	888
3.	9.643	110.92		.9741	.9427	1.052	1032
4.	9.643	157.28		.9750	.9427	1.051	1465
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio_____ cf/bbl.   Specific Gravity Separator Gas_____
Gravity of Liquid Hydrocarbons_____ deg.   Specific Gravity Flowing Fluid_____
F_c __Measured__ $(1-e^{-s})$_____ P_c __767.2__ P_c^2 __588.6__

No.	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.	743.2	552.3	36.3			559.8	28.8		
2.	730.2	533.2	55.4			546.4	42.2		
3.	721.2	520.1	66.5			537.6	51.0		
4.	697.2	486.1	102.5			518.7	69.9		
5.									

Absolute Potential: __10,600__ MCFPD; n __939__

COMPANY __Cities Service Oil Company__
ADDRESS __Box 97, Hobbs, New Mexico__
AGENT and TITLE __Earl H. Furrey, Jr.__ __Petroleum Engineer__
WITNESSED __Earl C. Smith__
COMPANY __El Paso Natural Gas Co.__

REMARKS

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.