

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation Yates County Lea
Initial Annual Special X Date of Test 4-8/4-12-1957
Company R. Olsen Oil Company Lease Meyer B Well No. 2
Unit H Sec. 11 Twp. 24 Rge. 36 Purchaser El Paso Natural Gas Company
Casing 7" Wt. 30.0 I.D. Set at 2950 Perf. To
Tubing 2 1/2 Wt. 6.5 I.D. Set at 3155 Perf. To
Gas Pay: From 3004 To 3172 L 3155 xG 0.650 -GL 2051 Bar.Press. 13.2
Producing Thru: Casing Tubing X Type Well Single
Date of Completion: 6-8-1948 Packer 2740 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp.

OBSERVED DATA

Tested Through ~~Pressure Gauge~~ (Meter) Type Taps

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Inlet) (Line) Size	(Outlet) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						655				72
1.	4	1.500	222	18.49	88	515				24
2.	4	1.500	244	26.01	94	458				24
3.	4	1.500	228	42.25	95	368				24
4.	4	1.500	215	51.84	85	321				24
5.										

FLOW CALCULATIONS

No.	Coefficient F ₁₈ (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.	13.99	65.92		.9741	.9608	1.020	880
2.	13.99	81.76		.9688	.9608	1.020	1,086
3.	13.99	100.91		.9680	.9608	1.019	1,338
4.	13.99	108.72		.9768	.9608	1.019	1,455
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons 5.866 deg.
F_c (1-e^{-s}) 0.132
Specific Gravity Separator Gas 0.650
Specific Gravity Flowing Fluid
P_c 668.2 P_c 446.5

No.	XX 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	XX XX	XX XX
1.	528.2	279.0	5.16	26.63	3.52	282.5	164.0		
2.	471.2	222.0	6.37	40.58	5.36	227.4	219.1		
3.	381.2	145.3	7.85	61.62	8.13	153.4	293.1		
4.	334.2	111.7	8.54	72.93	9.63	121.3	325.2		
5.									

Absolute Potential: 1,800 MCFPD; n 0.715
COMPANY R. Olsen Oil Company
ADDRESS 2805 Liberty Bank Building, Oklahoma City, Oklahoma
AGENT and TITLE Philip Randolph, Vice President
WITNESSED
COMPANY

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} = Supercompressibility 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 .