

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Lane Formation Permian County El Paso
Initial 7 Annual Special Date of Test 9/5/59
Company Artes Oil and Gas Company Lease Artes-Donnell Well No. 2
Unit Sec. 26 Twp. 25-N Rge. 1-E Purchaser
Casing 1 1/2 Wt. 1.50 I.D. 1.000 Set at 1056 Perf. 100 To 1000
Tubing 2 Wt. 4.70 I.D. 1.995 Set at 1337 Perf. 1357 To 1357
Gas Pay: From 3338 To 3350 L xG -GL Bar.Press.
Producing Thru: Casing Tubing X Type Well Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 9/5/59 Packer Reservoir Temp.
FOOT - 3136
REL - 5937

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						249		249		7 days
1.		2.150				276	50	545	50	3 hours
2.										
3.										
4.										
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.	12.365		308	1.000	0.9708	1.057	1795
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
P_c (1-e^{-s})

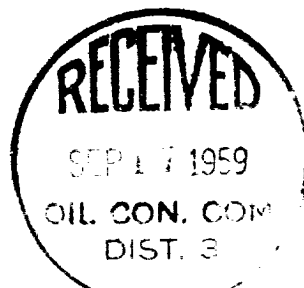
Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 361 P_c 223.521

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.	127					16129	13272		
2.									
3.									
4.									
5.									

Absolute Potential: 374 MCFPD; n 1.05

COMPANY Artes Oil and Gas Company
ADDRESS Box 730, Artes, El Paso Co., Texas
AGENT and TITLE L. J. Brown, Jr., District Engineer
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 .

[illegible]