

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Gallup County Rio Arriba
Initial I Annual Special Date of Test 8-22-59
Company Redfern & Nord Lease Largo Spur Well No. A
Unit 0-7 Sec. 10 Twp. 24N Rge. 6W Purchaser
Casing 2 1/2 Wt. 15.5 I.D. Set at 6690 Perf. 5470 To 5494
Tubing 2-2/8 Wt. 4.7 I.D. Set at 5503 Perf. 5503 To 5499
Gas Pay: From To L xG .400 -GL Bar.Press.
Producing Thru: Casing Tubing I Type Well Single Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: Packer Reservoir Temp.

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.	
1.						1583		1737		
2.										
3.		1/4"	528		78			1105		1 hr
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.							
2.							
3.	12.3430		540	.9831	.9993	1.877	6817
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 1749 P_c 1079

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.									
2.									
3.	1197					1437	1626		1.800
4.									
5.									

Absolute Potential: 10.466 MCFPD; n .75 1.606

COMPANY Redfern & Nord
ADDRESS Box 1747, Wildcat, Texas
AGENT and TITLE T. A. Dugan, Consulting Engineer Original signed by T. A. Dugan
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} = 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 .

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