

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool JANAT Formation Yates County Lea

Initial Annual A Special Date of Test 12/17-12/21/56

Company Haynes & V. T. Drilling Co. Lease Dunn Well No. 3

Unit J Sec. 13 Twp. 24S Rge. 36E Purchaser Ed. J. J.

Casing 5 1/2 Wt. 17# I.D. Set at 3021 Perf. To

Tubing 2 Wt. I.D. Set at 3200 Perf. To

Gas Pay: From 3035 To 3211 L 3200 xG .670 Bar.Press. 13.2

Producing Thru: Casing Tubing A Test Well Single

Date of Completion: 9/3/50 Packer None Single or G.O. Dual

Repair Temp.

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Test

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						425		425		72
1.	4	1.250	385	13.0	95	385		385		24
2.	4	1.250	360	25.0	92	363		370		24
3.	4	1.250	345	33.6	91	350		370		24
4.	Well was shut in during 4th rate of flow for line repairs.									
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.	9.643	71.71		.9630	.9463	1.034	657
2.	9.643	96.57		.9706	.9463	1.032	882
3.	9.643	109.74		.9715	.9463	1.030	1,002
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio dry cf/bbl.

Gravity of Liquid Hydrocarbons deg.

F_c (1-e^{-s})

Specific Gravity Separator Gas .670

Specific Gravity Flowing Fluid

F_g 136.2 P_c 192.0

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _c ² -P _w ²	Cal. P _w	P _w / F _c
1.	398.2	158.6				165.2	26.2	
2.	376.2	141.5				152.1	24.2	
3.	363.2	131.9	measured			146.2	22.2	
4.								
5.								

Absolute Potential: 2900 MCFPD; n .745714

COMPANY Haynes & V. T. Drilling Co.

ADDRESS 1725 North Grant Street, Dallas, Texas

AGENT and TITLE Ed. J. J. Office Manager

WITNESSED Smith & Blumer

COMPANY E. P. S. S.

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 .