

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Amant Formation Amant Date 1957 FEB 11 County 56 Lea
Initial Annual Special X Date of Test 6-25-56
Company Sun Oil Company Lease 1.000 Well No. 1
Unit L Sec. 3 Twp. 215 Rge. 06 Purchaser AMG
Casing 7 Wt. 24 I.D. 6.036 Set at 3770 Perf. 3350 To 3355
Tubing 2 1/8 Wt. 6.5 I.D. 2.441 Set at 3747 Perf. 3672 To 3675
Gas Pay: From 3672 To 3742 L 3707 xG .70 -GL 24.4 Bar. Press. 13.2
Producing Thru: Casing Tubing X Type Well Single
Date of Completion: 12-2-50 Packer Reservoir Temp.
Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

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

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										72
1.	1"	1.250"	618	11.44	65	637				24
2.	1"	1.250"	620	28.01	66	627				4
3.	1"	1.250"	639	47.01	64	636				24
4.	1"	1.250"	640	81.75	73	637				24
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	95.30		.9952	.9463	1.009	126
2.	9.643	128.31		.9924	.9463	1.009	1242
3.	9.643	176.18		.9902	.9463	1.072	1717
4.	9.643	231.26		.9877	.9463	1.007	2225
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c 5.866 (1-e^{-s}) .857
Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 950.2 P_c 902.0

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.	871.2	759.0	5.4	29.2	4.6	763.6	139.3	873.8	.72
2.	840.2	705.9	7.3	53.3	6.4	714.3	188.6	845.2	.80
3.	803.2	645.1	10.1	102.0	15.0	661.1	241.8	815.8	.86
4.	710.2	504.4	13.1	171.6	26.9	531.3	371.6	728.9	.77
5.									

Absolute Potential: 5025 MCFPD; n .907COMPANY Sun Oil CompanyADDRESS Box 2792 Odessa, TexasAGENT and TITLE Donald R. Lawrence EngineerWITNESSED 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 .