

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalpat Formation Iates County Lea
 Initial _____ Annual _____ Special XX Date of Test 12-10/12-14-56
 Company Skelly Oil Company Lease Coates Well No. 2
 Unit N Sec. 3 Twp. 24 Rge. 36 Purchaser El Paso Natural Gas Company
 Casing 7" Wt. 24# I.D. 6.336" Set at 3512' Perf. 3204' To 3222'
 Tubing 2" Wt. 4.7# I.D. 1.995 Set at 3118 Perf. _____ To _____
 Gas Pay: From 3204' To 3222' L 3118' xG 0.665 GL 2073 Bar.Press. 13.2
 Producing Thru: Casing _____ Tubing I Type Well Single
 Date of Completion: 9-27-35 Packer 3051 Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. _____

OBSERVED DATA

Tested Through (Proven) x (Choke) (Meter) Type Taps _____

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.	
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.		Press. psig
1.	4	1.000	238	10.24	56	378			72
2.	4	1.000	239	15.21	69	352			24
3.	4	1.000	245	27.04	61	327			24
4.	4	1.000	244	50.41	64	297			24
5.						246			24

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{w,pf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	6.135	50.70		1.0039	0.9498	1.026	304
2.	6.135	61.91		1.0010	0.9498	1.026	370
3.	6.135	83.52		0.9990	0.9498	1.026	499
4.	6.135	113.82		0.9962	0.9498	1.026	677

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c 9.936 (1-e^{-s}) 0.133
 Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 391.2 P_c² 153.0

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	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.	365.2	133.4	3.02	9.12	1.2	134.6	18.4		
2.	340.2	115.7	3.68	13.54	1.8	117.5	35.5		
3.	310.2	96.2	4.96	24.60	3.3	99.5	53.5		
4.	259.2	67.2	6.73	45.29	6.0	73.2	79.8		

Absolute Potential: 1,100 MCFPD; n 0.742
 COMPANY Skelly Oil Company
 ADDRESS Box 38, Hobbs, New Mexico
 AGENT and TITLE _____
 WITNESSED _____
 COMPANY _____

REMARKS

ELVIS A. HIZ
W.S. ENGINEER

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 .