

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation Intero-7R County Lea
Initial _____ Annual _____ Special X Date of Test 3-18/3-22-1957
Company R. Olsen (personal) Lease Christmas Well No. 1
Unit L Sec. 28 Twp. 22 Rge. 36 Purchaser EPNG
Casing 5 1/2 Wt. 23.0 I.D. _____ Set at 3130 Perf. _____ To _____
Tubing 2 Wt. 4.7 I.D. _____ Set at 3362 Perf. _____ To _____
Gas Pay: From 3180 To 3383 L 3362 xG 0.670 -GL 2253 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 2-9-1953 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Pressure) (Stroke) (Stroke) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Line) Size	(Stroke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						512				72
1.	4	1.250	355	3.80	62	476				24
2.	4	1.250	470	3.61	66	471				24
3.	4	1.250	451	4.00	65	469				24
4.	4	1.250	372	7.04	60	456				24
5.										

FLOW CALCULATIONS

No.	Coefficient Flange (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	37.41		.9981	.9463	1.040	355
2.	9.643	41.76		.9943	.9463	1.052	399
3.	9.643	43.17		.9952	.9463	1.050	412
4.	9.643	54.94		1.0000	.9463	1.042	523
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.936 (1-e^{-s}) 0.144

Specific Gravity Separator Gas 0.670
Specific Gravity Flowing Fluid _____
P_c 525.2 P_c 275.8

No.	$\frac{P}{P_t}$ 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	$\frac{P_w}{P_c}$
1.	489.2	239.3	3.53	12.46	1.79	241.1	34.7	490.9	.91
2.	484.2	234.4	3.96	15.68	2.26	236.7	39.1	486.5	.92
3.	482.2	232.5	4.09	16.73	2.41	234.9	40.9	484.7	.92
4.	469.2	220.1	5.20	27.04	3.89	224.0	51.8	473.3	.89
5.									

Absolute Potential: 2,650 MCFPD; n .98COMPANY R. Olsen & Harold OlsenADDRESS Drawer 2, Jal, N.M.AGENT and TITLE J.W. Payne, Jr.WITNESSED Earl G. SmithCOMPANY EPNG

REMARKS

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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 .