

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea
 Initial Annual Special x Date of Test 3-24/4-1-60
 Company Argo Oil Corporation Lease B. T. Lanehart Well No. 1
 Unit H Sec. 21 Twp. 25S Rge. 37E Purchaser El Paso Natural Gas Company
 Casing 8 5/8" Wt. 28.0 I.D. 8.003 Set at 2690 Perf. To
 Tubing 2 3/8" Wt. 4.7 I.D. 1.995 Set at 3025 Perf. To
 Gas Pay: From 3025 To 3072 L 3025 xG .656 -GL 1984 Bar.Press. 13.2
 Producing Thru: Casing Tubing x Type Well Single
 Single-Bradenhead-G. G. or G.O. Dual
 Date of Completion: 12-26-36 Packer None Reservoir Temp.

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(<u>Pressure</u>) (Line) Size	(<u>Choke</u>) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						392		392		72
1.	4	1.250	302	5.76	79	305		309		24
2.	4	1.250	260	12.25	77	265		272		24
3.	4	1.250	222	16.81	82	231		244		24
4.	4	1.250	191	24.01	70	202		220		24
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.	9.643	42.61	315.2	.9822	.9564	1.028	396.8
2.	9.643	57.85	273.2	.9840	.9564	1.024	537.6
3.	9.643	62.88	235.2	.9795	.9564	1.020	579.4
4.	9.643	70.02	204.2	.9905	.9564	1.019	651.7
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
 Gravity of Liquid Hydrocarbons deg.
 P_c Measured (1-e^{-s})

Specific Gravity Separator Gas
 Specific Gravity Flowing Fluid
 P_c 405.2 P_c^2 164.2

No.	P_{tux} P _t (psia)	P _t ²	F _c Q	P_c^2 (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.	318.2	101.2	63.0			103.8	60.4	322.2	.795
2.	278.2	77.4	86.8			81.3	82.9	285.2	.704
3.	244.2	59.6	104.6			66.1	98.1	257.2	.635
4.	215.2	46.3	117.9			54.4	109.8	233.2	.575
5.									

Absolute Potential: 920 MCFPD; n .854 $\theta = 49.5^\circ$
 COMPANY Argo Oil Corporation
 ADDRESS 1728 Milam Building, San Antonio 5, Texas
 AGENT and TITLE Chas. W. Johnson, Office Manager
 WITNESSED J. B. Murray
 COMPANY El Paso Natural Gas 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 .

ARGO OIL CORPORATION
B.T. LANEHART Well No.1
JALMAT FIELD
LEA COUNTY, NEW MEXICO

