

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Pictured Cliffs County Rio Arriba
Initial - Annual - Special X Date of Test 1/6/58
Company Magnolia Petroleum Company Lease Hill-Abraham Well No. 1
Unit M Sec. 24 Twp. 24N Rge. 2W Purchaser No purchaser
Casing 7" Wt. 17# I.D. 6.538" Set at 3263' Perf. Unknown To (May be open hole)
Tubing 2 1/8" Wt. 4.7# I.D. 1.995" Set at 3258' Perf. - To -
Gas Pay: From 3255 To - L - xGest. 0.680 -GL - Bar. Press 12 psia
Producing Thru: Casing - Tubing X Type Well single - gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: SI - 12/21/51 Packer None Reservoir Temp. -

OBSERVED DATA

Tested Through (Pressure) (Choke) (Pressure) Type Taps -

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Line) Size	(Choke) (Pressure) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	-	-	-	-	-	870	-	872	-	-
1.	2"	0.750	64	-	56	64	56	156	-	3 hrs.
2.										
3.										
4.										
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.	12.365	-	76	1.0039	0.9393	-	886
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas -
Specific Gravity Flowing Fluid -
 P_c 882 P_c 777.9

No.	P_w	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.	148	-	-	-	-	21.2	749.7	-	-
2.									
3.									
4.									
5.									

Absolute Potential: 916 MCFPD; n 0.85

COMPANY Magnolia Petroleum Company
ADDRESS P. O. Box 2406, Hobbs, New Mexico
AGENT and TITLE /s/ William A. Morgan, Jr. Engineer
WITNESSED -
COMPANY -

REMARKS

Correction as to purchaser.



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 .

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received		3
DISTRIBUTION		
Operator		
Santa Fe	1	
Operation Office		
State Land Office		
U. S. G. B.	1	
Transporter		
File	1	✓