

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Mesaverde County Rio Arriba
Initial X Annual - Special - Date of Test 9-11-58
Company Magnolia Petroleum Company Lease Gheney Federal Well No. 2 LT-MW
Unit M Sec. 17 Twp. 26N Rge. 2W Purchaser Pacific Northwest Pipe Line Corp.
Casing 5" Wt. 15# I.D. 4.408" Set at 6085' Perf. 5572' To 6026'
Tubing 2 3/8" Wt. 4.7# I.D. 1.995" Set at 5988' Perf. - To -
Gas Pay: From 5572' To 6026' L 5988' xG 0.680 -GL 4072 Bar.Press. 12 psia
Producing Thru: Casing - Tubing X Type Well G-G Dual
Date of Completion: 8-2-58 Packer Yes Reservoir Temp. -
Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Restrictor) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1497	-	-	-	
1.	2"	0.750"	419	-	68	419	68	-	-	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.							
2.	12.3650	-	431	0.9924	0.9393	1.047	5200
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio - cf/bbl.
Gravity of Liquid Hydrocarbons - deg.
P_c 9.402 (1-e^{-s}) 0.256
Specific Gravity Separator Gas -
Specific Gravity Flowing Fluid 0.680
P_c 1509 P_c 2277.1

No.	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.	431	185.8	48.9	2391.2	612.1	797.9	1479.2	-	-
2.									
3.									
4.									
5.									

Absolute Potential: 7188 MCFPD; n 0.75COMPANY Magnolia Petroleum CompanyADDRESS Box 2406, Hobbs, New MexicoAGENT and TITLE William A. Morgan - Jr. Gas 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 .

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