

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Below P.C. Formation Pictured Cliffs County Rio Arriba

Initial X Annual - Special - Date of Test 8-19-58

Company Magnolia Petroleum Company Lease Wasson Federal Well No. 1

Unit A Sec. 27 Twp. 24N Rge. 1W Purchaser -

Casing 5 1/2" Wt. 14 1/2 I.D. 5.012" Set at 2950' Perf. 2877' To 2894'

Tubing 2 3/8" Wt. 11.7 I.D. 1.995" Set at 2873' Perf. - To -

Gas Pay: From 2877' To 2894' L 2873' xG 0.680 -GL - Bar.Press. 12 psia

Producing Thru: Casing - Tubing X Type Well single gas

Date of Completion: 8-1-58 Packer none Reservoir Temp. -

OBSERVED DATA

Tested Through (Proven) (Choke) (None) Type Taps -

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.	2"	0.750"	114	-	62°	114	62°	189	-	3 hrs.
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.365	-	126	0.9981	0.9393	1.013	1480
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio - cf/bbl.

Gravity of Liquid Hydrocarbons - deg.

$P_c = \frac{P_w}{1 - e^{-S}}$  -

Specific Gravity Separator Gas -

Specific Gravity Flowing Fluid 0.680 est

$P_c = 703$   $P_c^2 = 494,210^3$

No.	$P_w$	$P_t^2$	$F_c Q$	$(F_c Q)^2$	$\frac{(F_c Q)^2}{(1 - e^{-S})}$	$P_w^2$	$P_c^2 - P_w^2$	Cal. $P_w$	$\frac{P_w}{P_c}$
1.	201	-	-	-	-	40,4	453.8	-	-
2.									
3.									
4.									
5.									

Absolute Potential: 1592 MCFPD; n 0.85

COMPANY MAGNOLIA PETROLEUM COMPANY

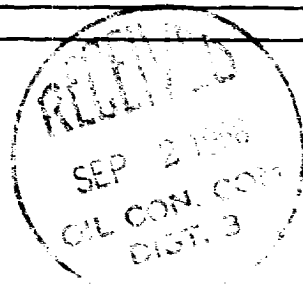
ADDRESS P. O. BOX 2406, HORES, NEW MEXICO

AGENT and TITLE William A. Mager, Jr. Gas Engineer

WITNESSED -

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<sub>t</sub> - 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.

$$F_{pv} = \text{Supercompressibility factor.}$$

$n$  = 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	4
DISTRIBUTION	
NO. COPIES FURNISHED	
1	4
State Land Office	
U. S. G. S.	
Transporter	
File	✓