

3 NMOCG
1 Western Development Co. NEW MEXICO OIL CONSERVATION COMMISSION
1 Sr. Union
1 File

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Formation Dakota County San Juan
Initial I Annual _____ Special _____ Date of Test 12 September 1962
Company Western Development Co. Lease Elliott Federal Well No. 1-22
Unit N Sec. 22 Twp. 30N Rge. 11W Purchaser _____
Casing 4 1/2" Wt. 10.5# I.D. _____ Set at 6948 Perf. 6705 To 6741
Tubing 1 1/4" Wt. 2.4# I.D. _____ Set at 6731 Perf. Open End To _____
Gas Pay: From 6705 To 6741 L _____ xG .65 -GL _____ Bar.Press. _____
Producing Thru: Casing _____ Tubing I Type Well Single - Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 8-27-62 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through ~~1 1/4"~~ (Choke) ~~1 1/4"~~ Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Prover) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2069		2073		
1.										
2.		3/4"	212		55°			1387		3 hrs
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (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.							
2.							
3.	12.365		224	1.0048	.9608	1.024	2738
4.							
5.							

PRESSURE CALCULATIONS

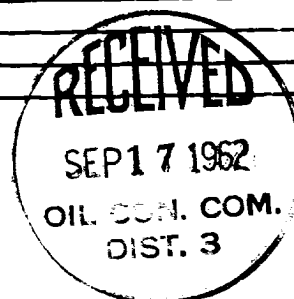
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2085 P_c² 4347.225

No.	P _w 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 F _c
1.									
2.									
3.	1399					1957.201	2390.024		1.8189
4.									
5.									

Absolute Potential: 4288 MCFPD; n = .75 1.5662

COMPANY Western Development Company
ADDRESS 709 Bloomfield Road, Farmington, New Mexico
AGENT and TITLE Original signed by T. A. Dugan Consulting 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_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 .