

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Blanco Formation Pictured Cliffs County Rio Arriba
Initial X Annual _____ Special _____ Date of Test 8-23-65
Company Continental Oil Company Lease AXI Apache "N" Well No. 7
Unit M Sec. 12 Twp. 25N Rge. 4W Purchaser Southern Union Gas Company
Casing 4-1/2" Wt. 10.5 I.D. 4.090 Set at 3720 Perf. 3613' To 3659'
Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 3626 Perf. None To _____
Gas Pay: From 3613' To 3659' L 3626 xG 0.670 -GL 2429 Bar.Press. 12
Producing Thru: Casing X Tubing _____ Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 8-17-65 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) ~~XXXXX~~ (XXXXX) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) XXXXX Size	XXXXX (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						988		988		81 - 144 hrs.
1.	2"	3/16	965		60°	968		965	60°	1 hr.
2.	2"	3/8	873		60°	891		873	60°	1 hr.
3.	2"	1/2	744		61°	785		744	61°	1 hr.
4.	2"	3/4	462		63°	604		462	63°	1 hr.
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.	.7851		977	1.000	0.9463	1.114	809
2.	3.0691		885	1.000	0.9463	1.102	2832
3.	5.5233		756	0.9990	0.9463	1.085	4283
4.	12.2023		474	0.9971	0.9463	1.053	5747
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c P_v measured (1-e^{-S})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid .670
P_c 1.000 P_c 1,000,000

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.	XXXXX								
1.	980					960,400	39,600		98.0
2.	903					815,409	184,591		90.3
3.	797					635,209	364,791		79.7
4.	616					379,456	620,543		61.6
5.									

Absolute Potential: 7600 MCFPD; n .58
COMPANY Continental Oil Company
ADDRESS P. O. Box 1621, Durango, Colorado
AGENT and TITLE E. B. Everett, Test Engineer
WITNESSED Frank Van Matre
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} = Supercompressibility factor.

n = Slope of back pressure curve.

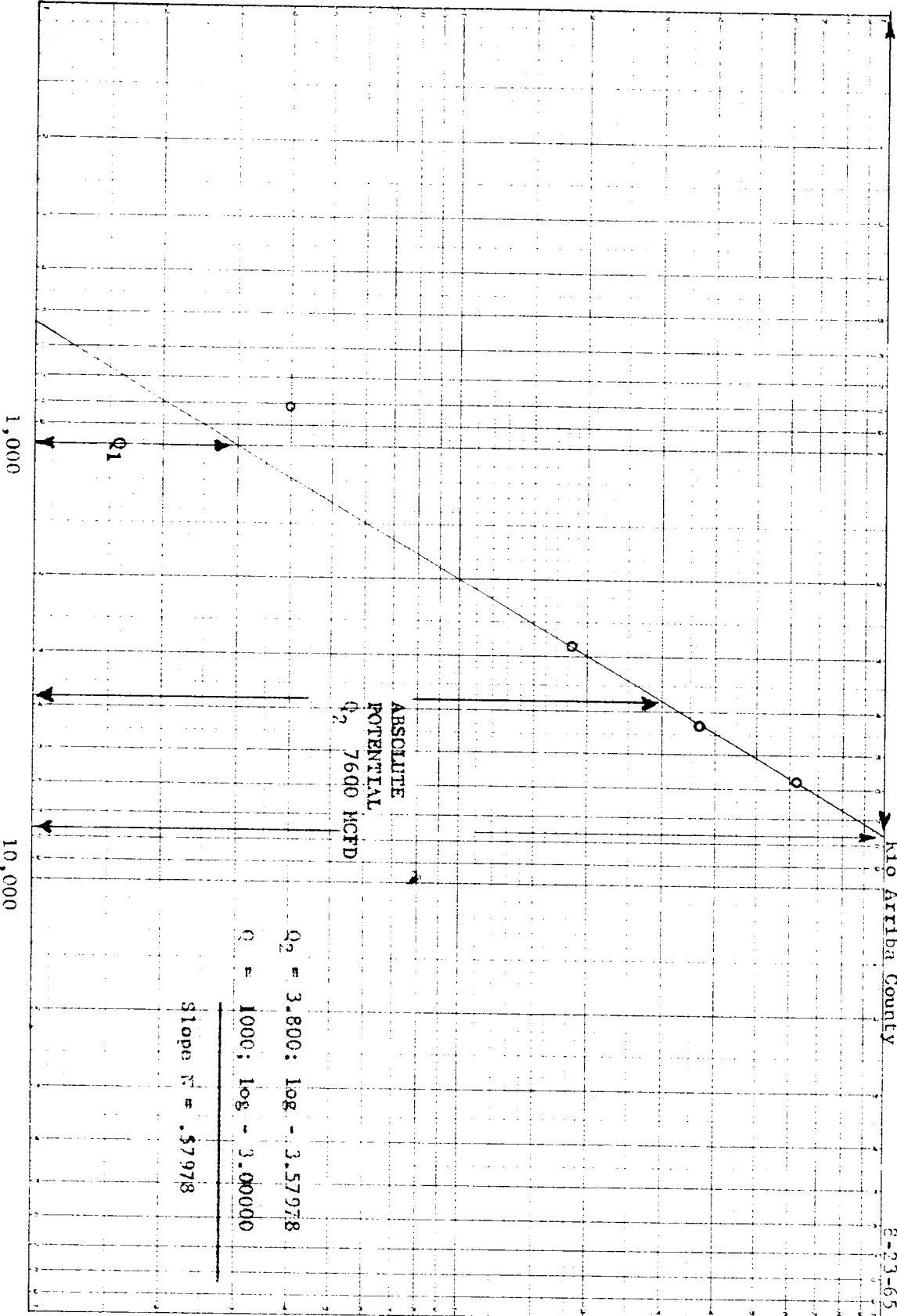
Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

Pc2 - Pw2 (Thousands)

1,000

100

10



Q - MCFD - 15.025 PSIA

Continental Oil Company
AXI Apache "N", No. 7
South Blanco - Pictured Cliffs
N-12, 25N-4W

Rio Arriba County

E-23-65