

NEW MEXICO CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form
Revised 9-1-65

RECEIVED

p. 5131

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 8-30-75		SEP 10 1975	
Company Robert N. Enfield			Connection		
Pool Cottonwood Draw Strawn Wildcat Well			Formation Strawn		
Completion Date 7-18-75		Total Depth 12062 12053		Plug Back TD 10713 10714	
Elevation 3162 KB		Farm or Lease Name Cottonwood Draw Unit			
Csg. Size 7"	Wt. 29	Set At 6.184	10717	Perforations: From 10682 To 10693	
Thg. Size 2 3/8"	Wt. 4.70	Set At 1.995	10550	Perforations: From 10707 To 10710	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single			Packer Set At 10550		Well No. 1
Producing Thru Tubing		Reservoir Temp. °F 190 @ 10456	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2	Unit Sec. Twp. Rge. L 20 25S 27E
L 10696	H 10696	Gg 0.600	% CO ₂	% N ₂	% H ₂ S
Prover			Meter Run		
Pos. ck.			Taps		

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI	41 1/2 hrs.			3308			3308		Pkr		
1.	2	X	8/64	2493		75	2493	75			60 min.
2.	2	X	9/64	2149		77	2149	77			60 min.
3.	2	X	10/64	2057		79	2057	79			60 min.
4.	2	X	11/64	1763		82	1763	82			60 min.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	0.2618		2506.2	0.9859	1.291	1.143	954.5
2	0.3346		2162.2	0.9840	1.291	1.137	1045.0
3	0.4173		2070.2	0.9822	1.291	1.132	1240.0
4	0.5090		1776.2	0.9795	1.291	1.122	1282.7
5							

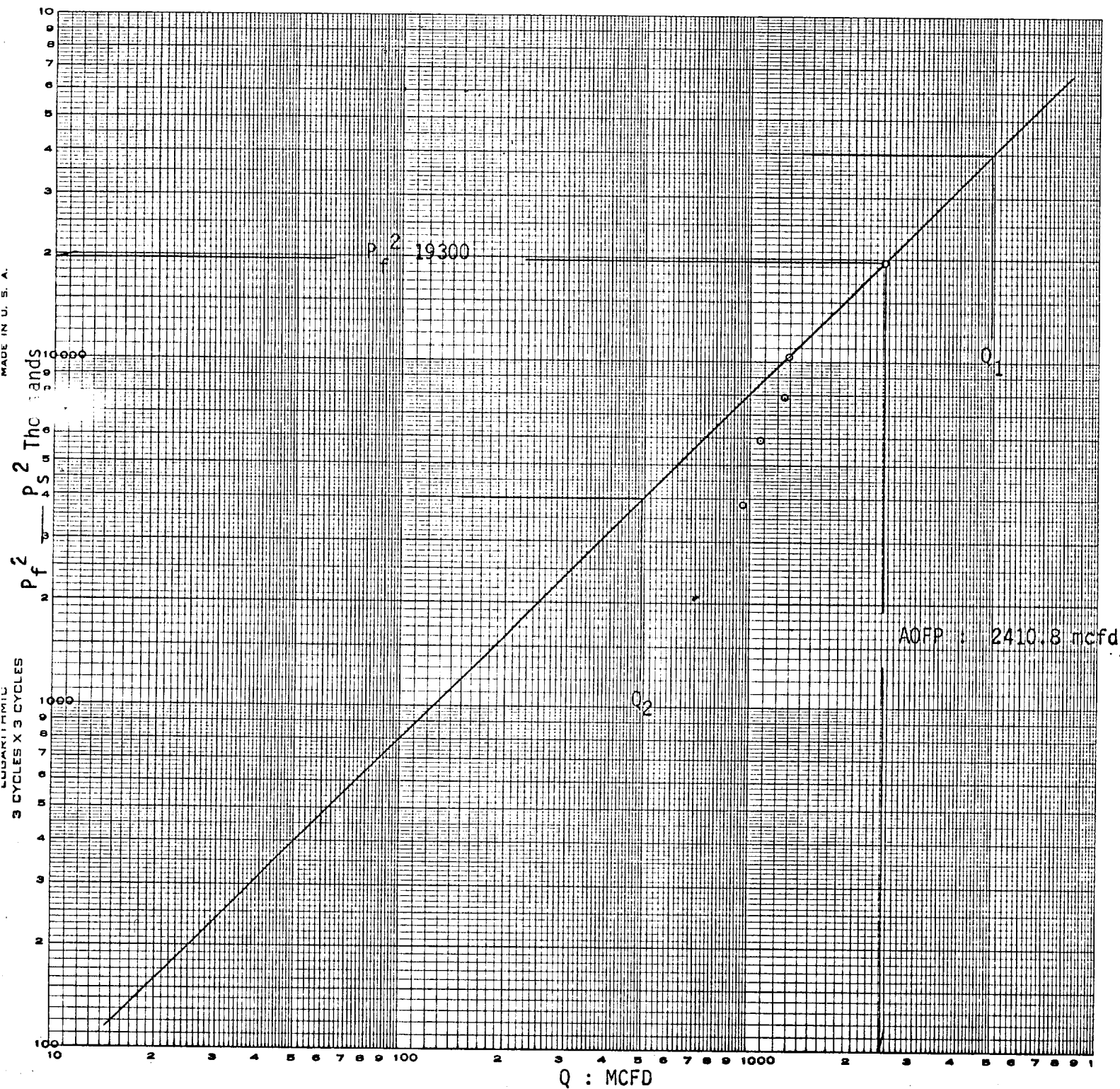
NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	3.74	535	1.49	0.766	Dry		0.600	X X X X X	671	358
2	3.22	537	1.50	0.773						
3	3.09	539	1.51	0.780						
4	2.65	542	1.51	0.794						
5										

P _f 4393.2 P _f ² 19300					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.8794429$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.8794429$	
NO.	P _i ²	P _s ²	P _w ²	P _f ² - P _s ²		
1	3934.2	15478	3822			
2	3660.2	13397	5903			
3	3385.2	11460	7840			
4	3005.2	9031	10269			
5						

Absolute Open Flow 2410.8 Mcfd @ 15.025			Angle of Slope @ 45° 0'		Slope, n 1.000
Remarks: BHP measured with Amerada RPG-3 gauge Serial No. 31203, 0-6000 psi					

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Tefteller, Inc.	F. Tefteller	

Field : Wildcat Well
 County, : Eddy
 State : New Mexico
 Date : August 30, 1975



$Q_1 = 4900$; $\text{Log } Q_1 = 3.690196$
 $Q_2 = 490$; $\text{Log } Q_2 = 2.690196$
 $n = 1.000000$
 $\theta = 45^\circ 0'$