Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

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Type Test: [X] Initial [ ] Annual [ ] Special		Test Date: 10-20-81	
Company: Yates Petroleum Corporation	Connection: Transwestern Pipeline Co.		
Pool: Wildcat Strawn	Formation: Strawn		Unit: NM 0557142
Completion Date: 9-11-81	Total Depth: 9450 KB	Plug Back TD: 9050 KB	Elevation: 3563 KB
Farm or Lease Name: Ross EG Fed. Com.			
Csg. Size: 4½ / Wt.: 11.6# / d: 4.000 / Set At: 9441	Perforations: From 8575 To 8586 KB		Well No.: 1
Tbg. Size: 2 3/8 / Wt.: 4.7# / d: 1.995 / Set At: 8535	Perforations: From To		Unit: K / Sec.: 20 / Twp.: 19S / Rge.: 25E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 8535	County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 143 @ 8581 KB	Mean Annual Temp. °F: 62	Baro. Press. – P_a: 13.2
			State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
8573	8573	0.607	0.59	129	Nil	-----	2"	Flanged

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					2473	67			Days
1.	2.067 X 0.625	490	15	70	2340	70			22 hrs.
2.	2.067 X 0.625	498	28	63	2157	71			24 hrs.
3.	2.067 X 0.625	486	48	58	1822	72			24 hrs.
4.	2.067 X 0.625	492	77	60	1395	73			24 hrs.
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	1.866	86.88	503.2	0.9905	1.284	1.0411	215
2	1.866	119.64	511.2	0.9971	1.284	1.0438	298
3	1.866	154.80	499.2	1.002	1.284	1.0443	388
4	1.866	197.23	505.2	1.000	1.284	1.0441	493
5							

NO.	P_t	Temp. °R	T_r	Z
1	0.747	530	1.485	.9226
2	0.758	523	1.465	.9179
3	0.741	518	1.451	.9170
4	0.750	520	1.457	.9173
5				

Gas Liquid Hydrocarbon Ratio ------- Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons ------- Deg.
Specific Gravity Separator Gas 0.607 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.607
Critical Pressure 674 P.S.I.A. 712.5 P.S.I.A.
Critical Temperature 357 R 371 R

P_c 3099.2 P_c^2 9605

NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			8602	1003
2			7318	2287
3			5210	4395
4			3024	6581
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.4595$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.2081$

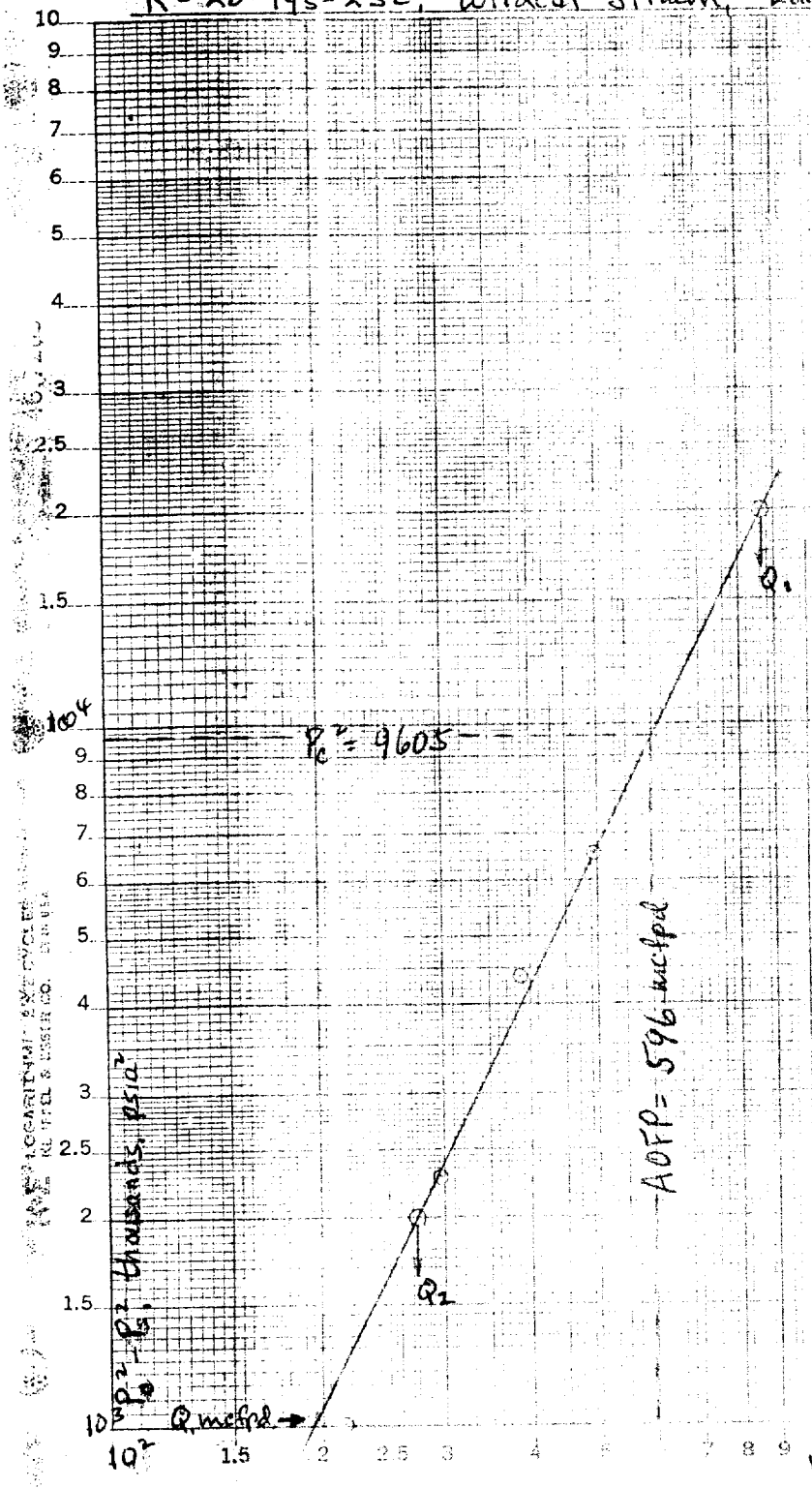
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 596$

Absolute Open Flow 596 Mcfd @ 15.025 Angle of Slope θ ____ Slope, n ____

Remarks: Static Pressures by Bennett Wireline, flowing pressures by DWT. Calculations worksheet C122D attached.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Danny Matthews	Eddie Mahfood	

YPC - Ross EC Federal Com No. 1
K-20-19s-25E, Wildcat Strawn, Eddy Co., N Mex.



$Q_1 = 863$ mcfpd log $Q_1 = 2.936$
$Q_2 = 273$ mcfpd log $Q_2 = 2.436$
$n = 0.500$

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Adopted 9-1-65

COMPANY YPC LEASE Ross EG Federal WELL NO. 1 DATE 10-30-81

LOCATION: Unit K Section 20 Township 19S Range 25E

L 8573 H 8573 L/H 1000 G 0.607 % CO_2 0.59 % N_2 1.29 % H_2S N.I

$2\frac{3}{8}$ - 8512(3.98) = 33878
$4\frac{1}{2}$ - 61(16.0) = 976
8573(4.052) 34854

d 2.0163 F_r 0.016224 GH 5204 1.26% H_2O P_{cr} 712.5 (TABLE IX & X) T_{cr} 371 (TABLE IX & X)

LINE	S1	1	2	3	4					5
1 Q_m	—	0.215	0.298	0.388	0.493					0.493
2 T_w (W.H. °R)	527	530	531	532	533					
3 T_s (B.H. °R)	603	602	601	600	600					
4 $T = (\frac{T_w + T_s}{2})$	565	566	566	566	5665					.566 5
5 e^{-s} (Est.)	.7836	.783	.783	.792	.833					0.821
6 TZ	442.74	443.18	443.18	448.29	471.89					465.10
7 GH/TZ	11.7542	11.7425	11.7425	11.6090	11.0279					11.1891
8 e^s (Table XIV)	1.5539	1.5532	1.5532	1.5455	1.5122					1.5213
9 $1-e^{-s}$ (Table XIV)		0.3562	0.3562	0.3550	0.3387					0.3427
10 P_t	2486.2	2353.2	2170.2	1835.2	1408.2					1408.2
11 $P_t^2/1000$	6181.2	5539.55	4709.77	3367.46	1983.03					1983.03
~~12 F_r (Table XV)~~ $2\frac{3}{8}$ - .0375 $\frac{FH}{T^2}$	0.44078	0.44034	0.44034	0.43134	0.41355					0.41354
13 $F_c = F_r TZ$		7.1902	7.1900	7.2727	7.656					7.546
14 $F_c Q_m$		1.546	2.143	2.822	3.774					3.720
15 $L/H (F_c Q_m)^2$		2.390	4.591	7.964	14.246					13.84
16 $F_w = L/H(F_c Q_m)^2(1-e^{-s})$		0.85	1.64	2.81	4.82					4.74
17 $P_w^2 = P_t^2 + F_w$		5538.40	4711.41	3376.27	1987.85					1987.77
18 $P_s^2 = e^s P_w^2$	9605.0	8602.2	7317.8	5209.5	3006.6					3024.6
19 P_s	3099.2	2933.0	2705.1	2282.4	1733.8					1739.0
20 $P = (\frac{P_t + P_s}{2})$	2792.7	2643.1	2437.7	2058.8	1571.0					1573.6
21 $P_r = (P/P_{cr})$	3.920	3.710	3.421	2890	2.205					2.208
22 $T_r = (T/T_{cr})$	1.523	1.5255	1.5260	1.5265	1.5270					1.527
23 e^{-s}	0.7836	0.783	0.783	0.792	0.8311					0.821

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$f'_{sc} = \frac{1.63294}{(16.2165 + 4\log d)\, d^{\frac{1}{3}}} = .016224$

1.2132

13.4347×5.7728

$671.3 \quad 3605$

$2.4 + \quad 0.6$

$1.6 - \quad 3.1 -$

$672.1 \quad 3563 \quad 6741357$

$2.2 \quad 0.8 +$

$38.1 \quad 13.9$

$7124 \quad 3771.0$