

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

45F
Form C-122 F.1c
RECEIVED

FEB 9 1983

Type Test [x] Initial [] Annual [] Special						Test Date 11/29/83			
Company Yates Petroleum Corporation						Connection Transwestern Pipeline Company		O. C. D. ARTESIA OFFICE	
Pool Pecos Slope - Abo Pool						Formation Abo		Unit	
Completion Date 5/1/82		Total Depth 4200.0'		Plug Back TD 4145.0'		Elevation 3747.8'		Farm or Lease Name King "TF" State	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4190.0'	Perforations: From 3742.0' To 3923.0'		Well No. 2			
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3701.0'	Perforations: From 0.0' To 0.0'		Unit Sec Top Rge G 25 6S 25E			
Type Well Single						Packer Set At 3701.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 102 @ 3690'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 3701.0'	H 3701.0'	Gg .635	%CO2 0.00	%N2 4.22	%H2S 0.00	Proven 0.000"	Meter Run 2.000"	Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Proven Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000 X 0.000	0	0.0	65	1006	0	0	0	0 hrs.
1.	2.067 X 1.125	330	50.7	72	919	62	0	0	24 hrs.
2.	2.067 X 1.125	340	65.4	72	900	62	0	0	24 hrs.
3.	2.067 X 1.125	350	74.1	65	889	62	0	0	24 hrs.
4.	2.067 X 1.125	360	76.0	54	870	62	0	0	24 hrs.
5.	0.000 X 0.000	0	0.0	0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS

NO	Coefficient (24 HOUR)	1/hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpu	Rate of Flow Q, Mcfd
1.	6.397	131.91	343.20	.989	1.255	1.026	1074
2.	6.397	151.98	353.20	.989	1.255	1.027	1239
3.	6.397	164.05	363.20	.995	1.255	1.029	1349
4.	6.397	168.41	373.20	1.006	1.255	1.033	1404
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr °R	Tr °R	Z	Gas Liquid Hydrocarbon Ratio Dry Mcf/bbl.
1.	.52	532	1.50	.950
2.	.53	532	1.50	.948
3.	.55	525	1.48	.944
4.	.56	514	1.44	.938
5.	0.00	0	0.00	0.000

Pc 1019.2	Pc ² 1038.8						
NO	Pt ²	Pw	Pw ²	Pc ² -Pw ² (1)	Pc ² / (Pc ² -Pw ²) = 5.0881	(2) [Pc ² / (Pc ² -Pw ²)] ⁿ = 4.0151	
1.	869.0	939.6	882.8	156.0			
2.	833.9	923.2	852.3	186.4			
3.	814.0	914.2	835.8	202.9			
4.	780.0	896.6	803.8	235.0			
5.	0.0	0.0	0.0	0.0			

$$ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 5416 \text{ Mcfd}$$

Absolute Open Flow 5416 Mcfd @ 15.025 Angle of Slope, 0 41 Slope, n .854
Remarks:

Approved By:	Conducted By: David Weaver	Calculated By: Andie Alderson	Checked By:
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 2/1/83

COMPANY Yates Petroleum Corporation LEASE King "TF" State WELL NO. 2

LOCATION: Unit G Section 25 Township 6S Range 25E

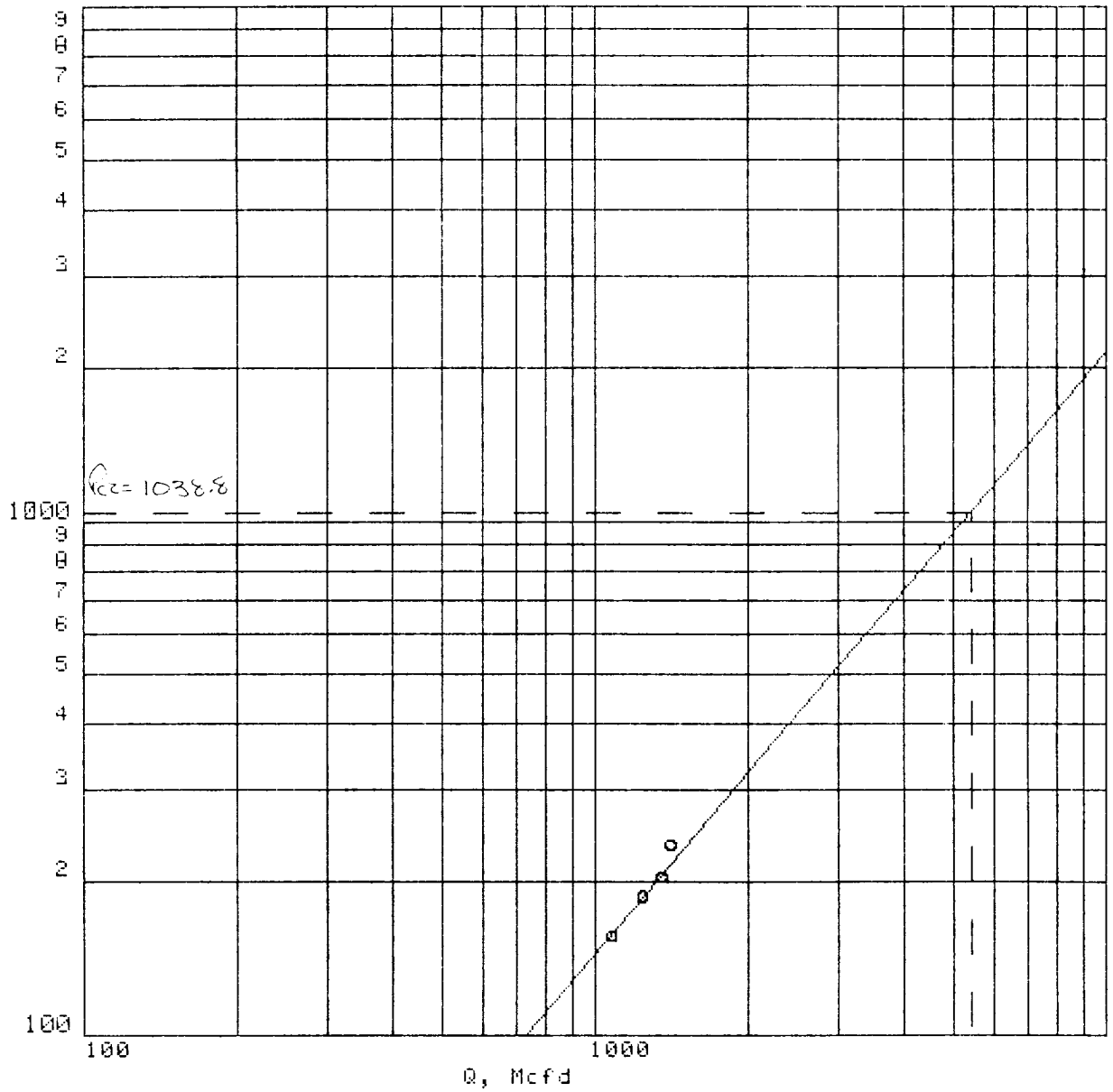
L 3701.0 H 3701.0 L/H 1.000 G .635 %O₂ 0.00 %N₂ 4.22 %H₂S 0.00

d 1.995 Fr .017777 GH 2350.1 Pcr 663.7 Tcr 355.7

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	1.074	1.239	1.349	1.404	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	562.0	562.0	562.0	562.0	0.0
4 T=(Tw+Ts)/2	542.0	542.0	542.0	542.0	0.0
5 Z(Est.)	.869	.871	.872	.875	0.000
6 TZ	471.0	472.2	472.9	474.1	0.0
7 GH/TZ	4.990	4.977	4.970	4.957	0.000
8 e ^s (Table XIV)	1.206	1.205	1.205	1.204	0.000
9 1-e ^{-s} (Table XIV)	.171	.170	.170	.170	0.000
10 Pt	932.2	913.2	902.2	883.2	0.0
11 Pt ² /1000	869.0	833.9	814.0	780.0	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.373	8.394	8.406	8.434	0.000
14 FcQm	8.995	10.399	11.340	11.841	0.000
15 L/H(FcQm) ²	80.918	108.136	128.587	140.221	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	13.808	18.411	21.864	23.771	0.000
17 Pw ² =Pt ² +Fw	882.8	852.3	835.8	803.8	0.0
18 Ps ² =e ^s Pw ²	1064.4	1027.2	1007.1	967.9	0.0
19 Ps	1031.7	1013.5	1003.5	983.8	0.0
20 P=(Pt+Ps)/2	982.0	963.4	952.9	933.5	0.0
21 Pr=(P/Pcr)	1.48	1.45	1.44	1.41	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.869	.871	.872	.875	0.000

Company	Yates Petroleum Corporation
Well	King "TF" State No. 2
Location	G, 25-68-25E
County	Chaves
Date	2/1/83

$P_0^2 - P_w^2$, THOUSANDS



ROF= 5416