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

Form C-122
Revised 9-1-65

RECEIVED
JAN 03 1983
O. C. D.
ARTESIA, OFFICE

Type Test: xx Initial ☐ Annual ☐ Special				Test Date: 10/31/82
Company: Yates Petroleum Corporation			Connection: Transwestern Pipeline	Unit
Pool: Pecos Slope - Abo Gas			Formation: Abo	
Completion Date: 4/19/82	Total Depth: 4350'		Plug Back TD: 4311'	Elevation: 3702' GL
Csg. Size: 4 1/2" / Wt.: 9.5# / d: 4.090 / Set At: 4350'			Perforations: From 3861 To 3975	Farm or Lease Name: Federal "HJ"
Tbg. Size: 2 3/8" / Wt.: 4.7# / d: 1.995 / Set At: 3825'			Perforations: From To	Well No.: 8
				Unit: A / Sec.: 19 / Twp.: 6S / Rge.: 26E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 3825'	County: Chaves
Producing Thru: Tubing	Reservoir Temp. °F: 90 @ 3825'	Mean Annual Temp. °F: 62	Baro. Press. – P_a: 13.2 psi	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
3825	3825	.637	.08	4.50	0	-	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					1010				
1.	2.067 x 1.000	275	12.2	72	766	62			24 hr.
2.	2.067 x 1.000	280	14.2	72	723	62			24 hr.
3.	2.067 x 1.000	290	18.1	72	674	62			24 hr.
4.	2.067 x 1.000	295	23.0	72	600	62			24 hr.
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	4.946	59.3	288.2	.9887	1.253	1.024	372
2	4.946	64.5	293.2	.9887	1.253	1.024	405
3	4.946	74.0	303.2	.9887	1.253	1.025	465
4	4.946	84.2	308.2	.9887	1.253	1.025	529
5							

NO.	P_t	Temp. °R	T_r	Z
1	.44	532	1.49	.954
2	.44	532	1.49	.954
3	.46	532	1.49	.952
4	.47	532	1.49	.951
5				

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: -- Deg.
Specific Gravity Separator Gas: .637 / XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX / .637
Critical Pressure: 661 P.S.I.A. / 661 P.S.I.A.
Critical Temperature: 358 R / 358 R

P_c 1023.2 P_c^2 1046.9

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	607.2		609.0	437.9
2	542.0		544.1	502.8
3	472.2		475.1	571.8
4	376.0		379.8	667.1
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.569$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.443$

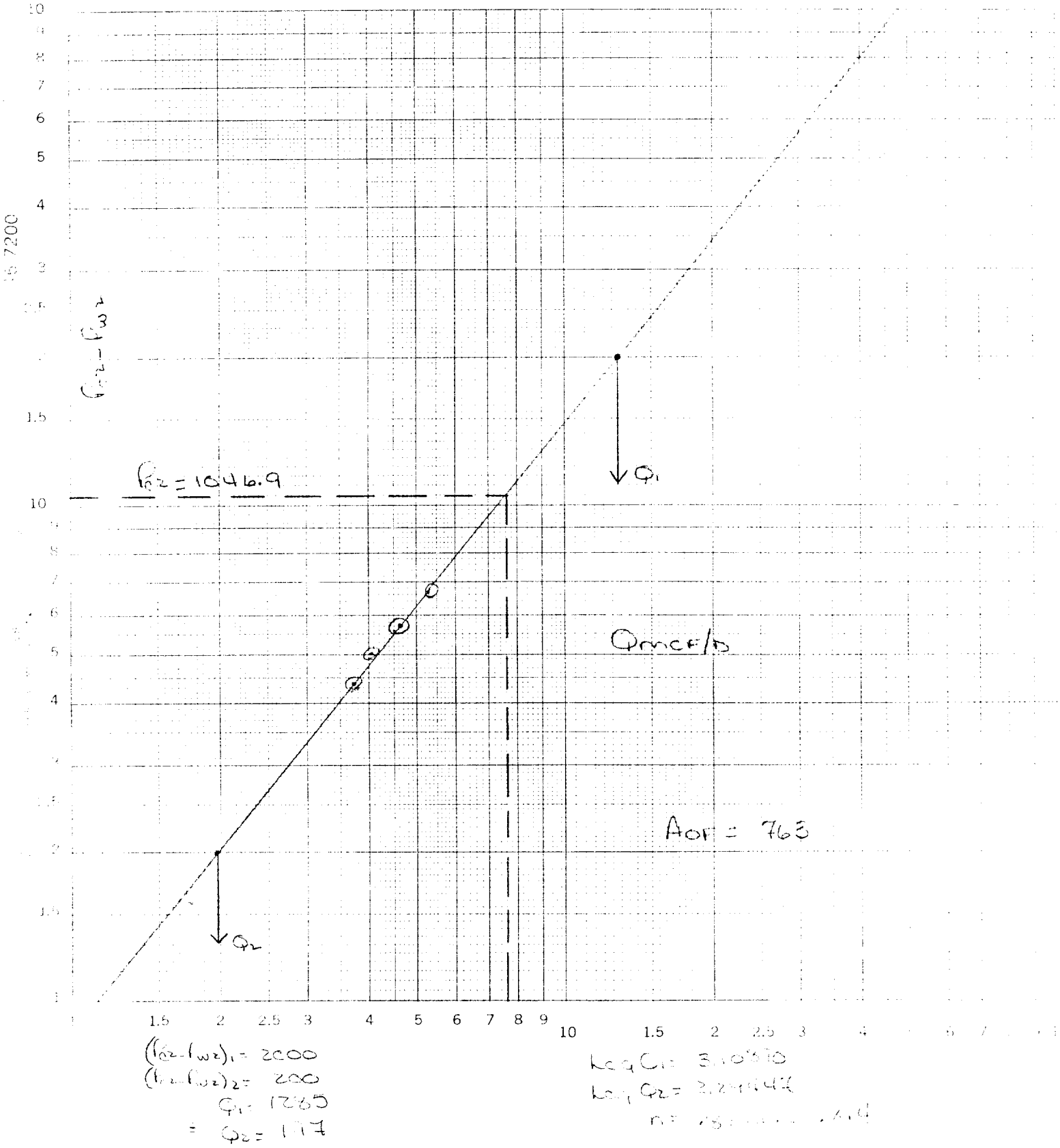
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 763$

Absolute Open Flow: 763 Mcfd @ 15.025 | Angle of Slope θ: | Slope, n: .814

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	David Weaver	Andie Alderson	

Cities Service Petroleum Corp.
Federal "34" #8
Unit A 19-6S-
Chaves County



$(P_{e2}-P_{wf})_1 = 2000$
$(P_{e2}-P_{wf})_2 = 200$
$Q_1 = 1285$
$Q_2 = 177$

$\log C =$
$\log Q_2 =$
$n =$

COMPANY [illegible] LEASE [illegible] WELL NO. [illegible] DATE 12/6/82

LOCATION: Unit A Section [illegible] Township [illegible] Range [illegible]

L [illegible] H [illegible] L/H 1 G .627 % CO_2 [illegible] % N_2 [illegible] % H_2S 0

d [illegible] F_f [illegible] GH [illegible] P_{cr} [illegible] (TABLE IX & X) T_{cr} 358 (TABLE IX & X)

LINE	1		2 [illegible]		3 [illegible]		4 [illegible]			
1 Q_m	.3[illegible]		.[illegible]		.4[illegible]		.5[illegible]			
2 T_w (W.H. °R)	5[illegible]		5[illegible]		5[illegible]		5[illegible]			
3 T_s (B.H. °R)	5[illegible]		5[illegible]		5[illegible]		5[illegible]			
4 $T = (\frac{T_w + T_s}{2})$	5[illegible]		5[illegible]		5[illegible]		5[illegible]			
5 Z (Est.)	.881		.[illegible]		.[illegible]		.[illegible]			
6 TZ	472.22		475.43		479.18		484.01			
7 GH/TZ	5.161		5.126		5.086		5.035			
8 e^s (Table XIV)	1.214		1.212		1.210		1.208			
9 $1-e^{-s}$ (Table XIV)	.176		.175		.174		.172			
10 P_t	7[illegible]		7[illegible]		[illegible]		613.2			
11 $P_t^2/1000$	607.2		542.0		472.2		376			
12 F_f (Table XV)	.01823		.01823		.01823		.01823			
13 $F_c = F_f TZ$	8.608		8.667		8.[illegible]		8.[illegible]			
14 $F_c Q_m$	3.202		3.510		4.[illegible]		4.[illegible]			
15 $L/H (F_c Q_m)^2$	10.255		12.3[illegible]		16.500		21.7[illegible]			
16 $F_w = L/H(F_c Q_m)^2(1-e^{-s})$	1.805		2.15[illegible]		2.[illegible]		3.[illegible]			
17 $P_w^2 = P_t^2 + F_w$	609.0		[illegible]		[illegible]		[illegible]			
19 $P_s^2 = e^s P_w^2$	739.3		659.5		574.7		[illegible]			
19 P_s	859.8		[illegible]		[illegible]		[illegible]			
20 $P = (\frac{P_t + P_s}{2})$	819.5		[illegible]		[illegible]		[illegible]			
21 $P_r = P/P_{cr}$	1.[illegible]		[illegible]		[illegible]					
22 $T_r = (T/T_{cr})$	1.[illegible]				[illegible]		[illegible]			
23 D (Table XI)	[illegible]		[illegible]							

(Any acceptable)