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

c/SF
File

Form C-122

RECEIVED BY
JUN 08 1984
O. C. D.
ARTESIA, OFFICE

Type Test [x] Initial [ ] Annual [ ] Special						Test Date 4/10/84		
Company Yates Petroleum Corporation ✓				Connection Transwestern Pipeline Company				
Pool Pecos Slope Abo				Formation Abo			Unit	
Completion Date 5/15/83		Total Depth 4205.0'		Plug Back TD 4157.0'		Elevation 3704.5'	Farm or Lease Name Spool "SU" Com	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4205.0'	Perforations: From 3668.0' To 3973.0'			Well No. 2	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3628.0'	Perforations: From 0.0' To 0.0'			Unit Sec D 23	Twp 7S Rge 25E
Type Well Single				Packer Set At 3628.0'			County Chaves	
Producing Thru Tubing		Resv. Temp. °F 116 @ 3625'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	State New Mexico	

L	H	Gg	%CO2	%N2	%H2S	Prover	Meter Run	Taps
3628.0'	3628.0'	.648	.02	6.55	0.00	0.000"	2.000"	Flange

NO	FLOW DATA Prover Size	X	Orifice Size	Press. psig	Diff. hw	Temp. °F	TUBING DATA Press. psig	Temp. °F	CASING DATA Press. psig	Temp. °F	Duration of Flow
SI	0.000	X	0.000	0	0.0	0	993	0	0	0	0 hrs.
1.	2.067	X	1.375	150	7.3	69	937	62	0	0	24 hrs.
2.	2.067	X	1.375	145	16.0	68	899	62	0	0	24 hrs.
3.	2.067	X	1.375	140	20.5	45	860	62	0	0	24 hrs.
4.	2.067	X	1.375	135	42.0	66	810	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)	$\sqrt{hwPm}$	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	10.204	34.52	163.20	.991	1.242	1.013	439
2.	10.204	50.31	158.20	.992	1.242	1.012	641
3.	10.204	56.04	153.20	1.015	1.242	1.013	730
4.	10.204	78.89	148.20	.994	1.242	1.010	1005
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z
1.	.25	529	1.50	.975
2.	.24	528	1.49	.976
3.	.23	505	1.43	.974
4.	.22	526	1.49	.980
5.	0.00	0	0.00	0.000

Gas Liquid Hydrocarbon Ratio Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
Specific Gravity Separator Gas .648 xxxxxxxxxxxx
Specific Gravity Flowing Fluid xxxxx .648
Critical Pressure 659.4 PSIA 659.4 PSIA
Critical Temperature 353.5°R 353.5°R

Pc 1006.2 Pc^2 1012.4

NO	Pt^2	Pw	Pw^2	Pc^2-Pw^2
1.	902.9	951.4	905.2	107.2
2.	832.1	915.0	837.2	175.3
3.	762.5	877.0	769.1	243.4
4.	677.7	830.8	690.2	322.2
5.	0.0	0.0	0.0	0.0

(1) $\frac{Pc^2}{Pc^2-Pw^2} = 3.1519$ (2) $\left[\frac{Pc^2}{Pc^2-Pw^2}\right]^n = 2.3692$

$AOF = Q\left[\frac{Pc^2}{Pc^2-Pw^2}\right]^n = 2380$ Mcfd

Absolute Open Flow 2380 Mcfd @ 15.025 | Angle of Slope, θ 37 | Slope, n .751

Remarks:

Approved By:	Conducted By: David Weaver	Calculated By: Andie Carpenter	Checked By:

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 6/7/84

COMPANY Yates Petroleum Corporation LEASE Spool "SU" Com WELL NO. 2

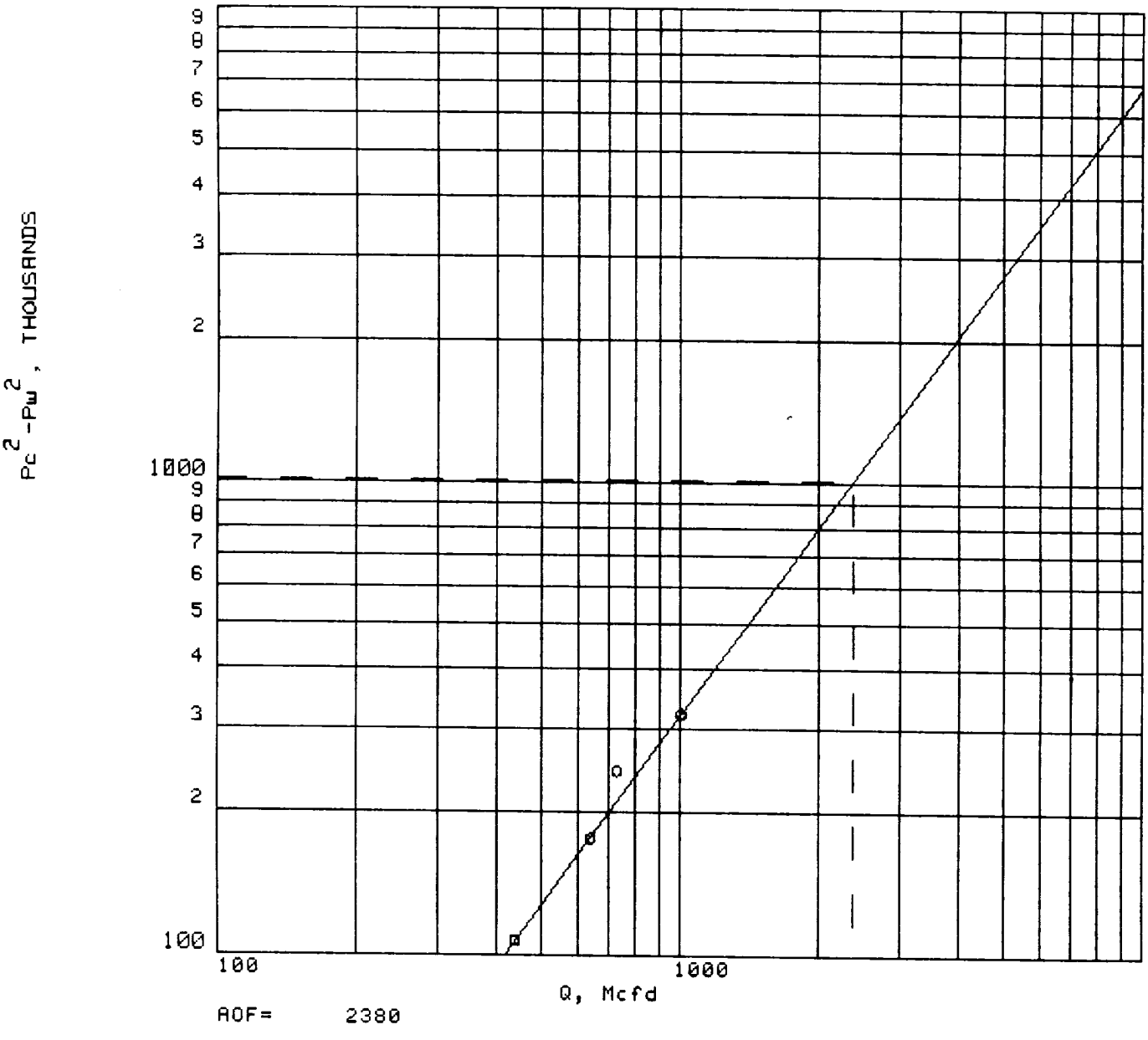
LOCATION: Unit D Section 23 Township 7S Range 25E

L 3628.0 H 3628.0 L/H 1.000 G .648 %CO2 .02 %N2 6.55 %H2S 0.00

d 1.995 Fr .017777 GH 2350.9 Pcr 659.4 Tcr 353.5

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.439	.641	.730	1.005	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	576.0	576.0	576.0	576.0	0.0
4 T=(Tw+Ts)/2	549.0	549.0	549.0	549.0	0.0
5 Z(Est.)	.876	.880	.885	.890	0.000
6 TZ	480.9	483.3	485.7	488.9	0.0
7 GH/TZ	4.889	4.865	4.840	4.809	0.000
8 e^s(Table XIV)	1.201	1.200	1.199	1.198	0.000
9 $1-e^{-s}$(Table XIV)	.167	.167	.166	.165	0.000
10 Pt	950.2	912.2	873.2	823.2	0.0
11 $Pt^2/1000$	902.9	832.1	762.5	677.7	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.549	8.591	8.640	8.690	0.000
14 FcQm	3.755	5.503	6.309	8.731	0.000
15 $L/H(FcQm)^2$	14.100	30.288	39.803	76.228	0.000
16 $Fw=L/H(FcQm)^2(1-e^{-s})$	2.362	5.051	6.603	12.579	0.000
17 $Pw^2=Pt^2+Fw$	905.2	837.2	769.1	690.2	0.0
18 $Ps^2=e^sPw^2$	1087.4	1004.7	922.0	826.6	0.0
19 Ps	1042.8	1002.4	960.2	909.2	0.0
20 P=(Pt+Ps)/2	996.5	957.3	916.7	866.2	0.0
21 Pr=(P/Pcr)	1.51	1.45	1.39	1.31	0.00
22 Tr=(T/Tcr)	1.55	1.55	1.55	1.55	0.00
23 Z(Table XI)	.876	.880	.885	.890	0.000

Company	Yates Petroleum Corporation
Well	Spool "SU" Com No. 2
Location	D, 23-7S-25E
County	Chaves
Date	6/7/84



AOF= 2380