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

C. C. D.
ARTSIA FORM C-122

Type Test [x] Initial [] Annual [] Special						Test Date 4/18/89			
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company					
Pool Ordovician				Formation Foor Ranch Pre Permian				Unit	
Completion Date 3/21/89		Total Depth 6450.0'		Plug Back TD 6384.0'		Elevation 3870.0'		Farm or Lease Name Energy APY State	
Csg Size 5.500"	Wt. 14.000#	d 5.012"	Set At 6450.0'	Perforations: From 6061.0' To 6090.0'				Well No. 2	
Tbg Size 2.375"	Wt. 4.900#	d 1.995"	Set At 5980.0'	Perforations: From 0.0' To 0.0'				Unit Sec Twp Rge K 36 9S 26E	
Type Well Single				Packer Set At 5980.0'				County Chaves	
Producing Thru Tubing		Resv. Temp. °F 121 @ 5970'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 5980.0'	H 5980.0'	Gg .632	%CO2 1.27	%N2 3.60	%H2S 0.00	Prover 0.000"	Meter Run 2.000"	Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Prover 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	73	1854	0	0	0	0 hrs.
1.	2.067 X 1.375	560	14.0	68	1740	62	0	0	24 hrs.
2.	2.067 X 1.375	610	20.3	70	1720	62	0	0	24 hrs.
3.	2.067 X 1.375	615	22.7	69	1681	62	0	0	24 hrs.
4.	2.067 X 1.375	625	29.9	73	1638	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)	√hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	10.204	89.58	573.20	.992	1.258	1.045	1193
2.	10.204	112.48	623.20	.991	1.258	1.049	1500
3.	10.204	119.42	628.20	.991	1.258	1.050	1595
4.	10.204	138.14	638.20	.988	1.258	1.049	1837
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio Dry	Mcf/bbl.
1.	.86	528	1.49	.915	A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.
2.	.93	530	1.50	.909	Specific Gravity Separator Gas	.632 xxxxxxxxxxxxxxx
3.	.94	529	1.49	.908	Specific Gravity Flowing Fluid	.632 xxxxxx
4.	.95	533	1.50	.909	Critical Pressure	670.4 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	354.4°R

Pc 1867.2 Pc² 3486.4				
NO	Pt²	Pw	Pw²	Pc²-Pw² (1)
1.	3073.7	1760.1	3098.1	388.3
2.	3004.0	1744.3	3042.6	443.9
3.	2870.3	1707.1	2914.1	572.3
4.	2726.5	1668.7	2784.7	701.7
5.	0.0	0.0	0.0	0.0

$\frac{Pc^2}{Pc^2 - Pw^2} = \frac{4.9897}{(2)} \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 3.2453$
 $ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 5962 \text{ Mcfd}$

Absolute Open Flow 5962 Mcfd @ 15.025 Angle of Slope, 0 36 Slope, n .732

Remarks: _____

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

Adopted 9-1-65

DATE 4/05/91

COMPANY Yates Petroleum Corporation LEASE Energy AFY State WELL NO. 2

LOCATION: Unit K Section 36 Township 9S Range 26E

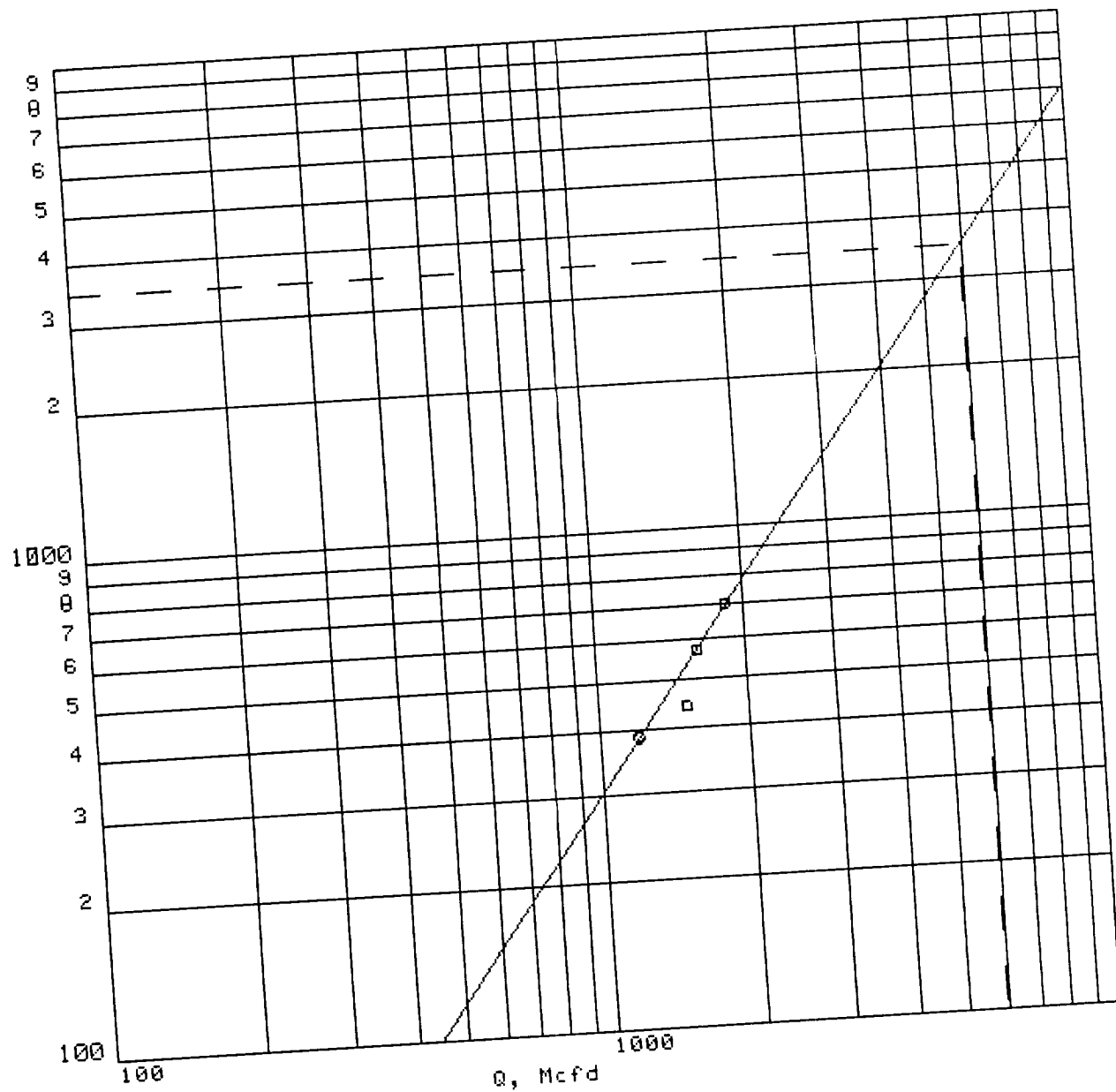
L 5980.0 H 5980.0 L/H 1.000 G .632 %CO₂ 1.27 %N₂ 3.60 %H₂S 0.00

d 1.995 Fr .017777 GH 3779.4 Pcr 670.4 Tcr 354.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Om	1.193	1.500	1.595	1.837	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	581.0	581.0	581.0	581.0	0.0
4 T=(Tw+Ts)/2	551.5	551.5	551.5	551.5	0.0
5 Z(Est.)	.810	.811	.812	.815	0.000
6 TZ	446.7	447.1	448.1	449.2	0.0
7 GH/TZ	8.461	8.453	8.435	8.413	0.000
8 e ^s (Table XIV)	1.373	1.373	1.372	1.371	0.000
9 1-e ^{-s} (Table XIV)	.272	.272	.271	.271	0.000
10 Pt	1753.2	1733.2	1694.2	1651.2	0.0
11 Pt ² /1000	3073.7	3004.0	2870.3	2726.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	7.940	7.948	7.965	7.985	0.000
14 FcOm	9.471	11.920	12.704	14.669	0.000
15 L/H(FcOm) ²	89.708	142.089	161.402	215.186	0.000
16 Fw=L/H(FcOm) ² (1-e ^{-s})	24.390	38.600	43.765	58.224	0.000
17 Pw ² =Pt ² +Fw	3098.1	3042.6	2914.1	2784.7	0.0
18 Ps ² =e ^s Pw ²	4254.9	4177.4	3998.2	3817.6	0.0
19 Ps	2062.7	2043.9	1999.6	1953.9	0.0
20 P=(Pt+Ps)/2	1908.0	1888.5	1846.9	1802.5	0.0
21 Pr=(P/Pcr)	2.85	2.82	2.76	2.69	0.00
22 Tr=(T/Tcr)	1.56	1.56	1.56	1.56	0.00
23 Z(Table XI)	.810	.811	.812	.815	0.000

Company	Yates Petroleum Corporation
Well	Energy AFY State No. 2
Location	K, 36-9S-26E
County	Chaves
Date	4/05/91

$P_c^2 - P_w^2$, THOUSANDS



AOF = 5962