

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

Form C-122

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11/14/82		JAN 20 1983	
Company Yates Petroleum Corporation			Connection Transwestern Pipeline Company			O. C. D.	
Pool Pecos Slope - Abo Gas			Formation Abo			Unit ARTESIA, OFFICE	
Completion Date 9/3/82		Total Depth 4850.0'		Plug Back TD 4809.0'		Elevation 3788.0'	
Farm or Lease Name Cornett "TI"							
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set Rt 4850.0'	Perforations: From 4434.0' To 4598.0'		Well No. 1	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set Rt 4390.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge A 3 8S 26E	
Type Well Single				Packer Set Rt 4390.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 103 @ 4374'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	
State New Mexico							
L 4390.0'	H 4390.0'	Gg .635	%CO2 .05	%N2 4.68	%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	
01	0.000 X 0.000	0	0.0	72	1004	0	0	0	0 hrs.
1.	2.067 X 1.250	260	34.0	72	800	62	0	0	24 hrs.
2.	2.067 X 1.250	275	50.4	72	739	62	0	0	24 hrs.
3.	2.067 X 1.250	290	53.5	72	714	62	0	0	24 hrs.
4.	2.067 X 1.250	300	64.5	72	655	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.	8.134	96.38	273.20	.989	1.255	1.021	993
2.	8.134	120.52	288.20	.989	1.255	1.022	1243
3.	8.134	127.36	303.20	.989	1.255	1.024	1316
4.	8.134	142.13	313.20	.989	1.255	1.024	1469
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.	.41	532	1.49	.959	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	.44	532	1.49	.957	Specific Gravity Separator Gas	.635	xxxxxxxxxxxxxx
3.	.46	532	1.49	.954	Specific Gravity Flowing Fluid	xxxxxx	.635
4.	.47	532	1.49	.953	Critical Pressure	661.0 PSIA	661.0 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	358.0°R	358.0°R

Pc 1017.2 Pc² 1034.7

NO	Pt²	√Pw	Pw²	Pc²-Pw² (1)	Pc²	= 1.8583	(2) [$\frac{Pc²}{Pc²-Pw²}$] ⁿ	= 1.5989
1.	661.3	821.7	675.3	359.4				
2.	565.8	766.8	587.9	446.8				
3.	528.8	744.1	553.7	481.0				
4.	446.5	691.2	477.8	556.9				
5.	0.0	0.0	0.0	0.0				

$$ROF = Q \left[\frac{Pc²}{Pc²-Pw²} \right]^n = 2350 \text{ Mcfd}$$

Absolute Open Flow 2350 Mcfd @ 15.025 Angle of Slope, θ 37 Slope, n .757
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 1/18/83

COMPANY Yates Petroleum Corporation LEASE Cornett "TI" WELL NO. 1

LOCATION: Unit A Section 3 Township 8S Range 26E

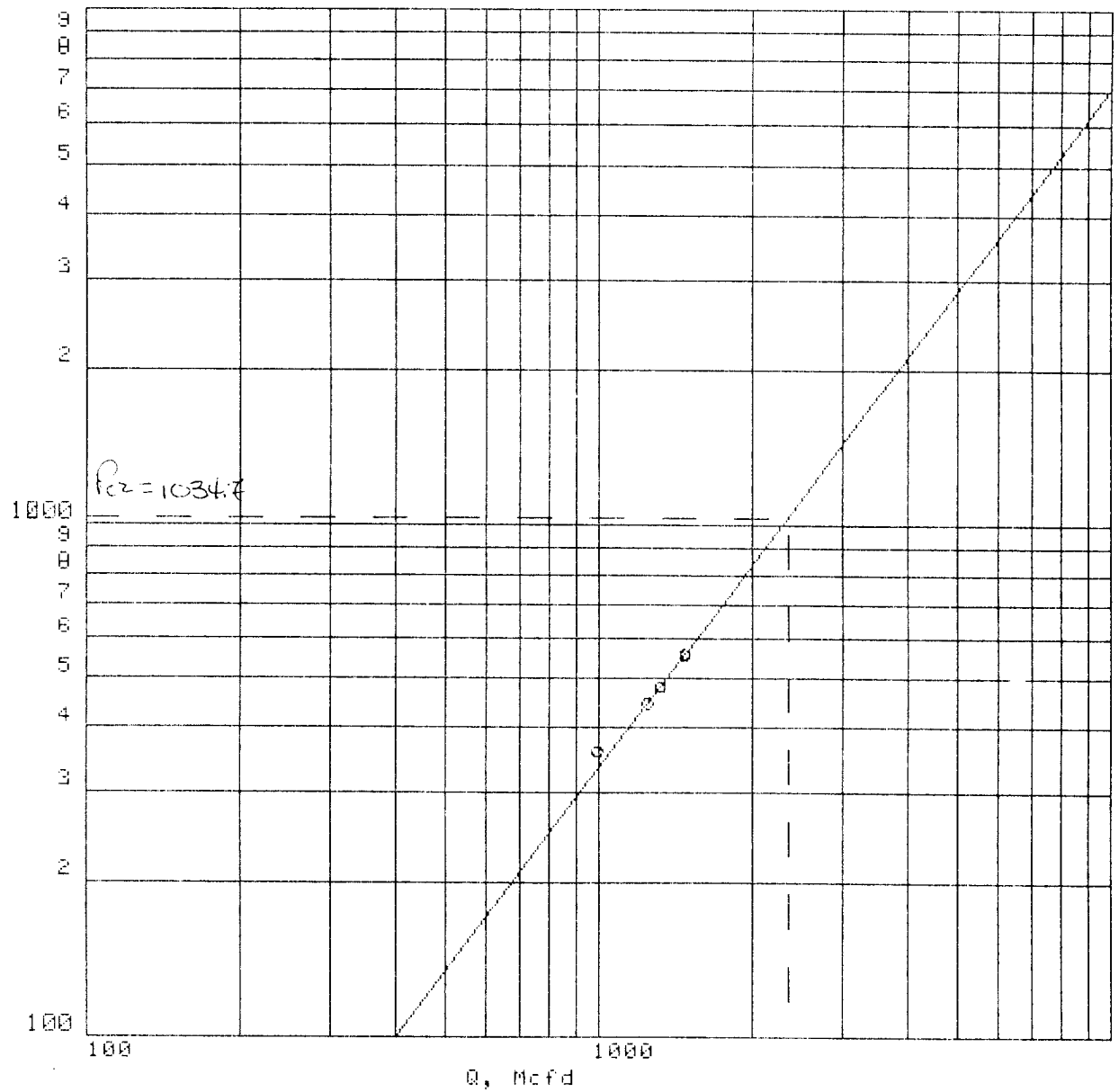
L 4390.0 H 4390.0 L/H 1.000 G .635 %CO₂ .05 %N₂ 4.68 %H₂S 0.00

d 1.995 Fr .017777 GH 2787.7 Pcr 661.0 Tcr 358.0

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.993	1.243	1.316	1.469	0.000
2 Tw(W.H.*R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.*R)	563.0	563.0	563.0	563.0	0.0
4 T=(Tw+Ts)/2	542.5	542.5	542.5	542.5	0.0
5 Z(Est.)	.880	.888	.891	.899	0.000
6 TZ	477.6	481.8	483.6	487.9	0.0
7 GH/TZ	5.837	5.785	5.764	5.714	0.000
8 e ^s (Table XIV)	1.245	1.242	1.241	1.239	0.000
9 1-e ^{-s} (Table XIV)	.197	.195	.194	.193	0.000
10 Pt	813.2	752.2	727.2	668.2	0.0
11 Pt ² /1000	661.3	565.8	528.8	446.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.490	8.566	8.597	8.673	0.000
14 FcQm	8.431	10.651	11.311	12.744	0.000
15 L/H(FcQm) ²	71.086	113.442	127.940	162.403	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	13.975	22.125	24.870	31.323	0.000
17 Pw ² =Pt ² +Fw	675.3	587.9	553.7	477.8	0.0
18 Ps ² =e ^s Pw ²	840.5	730.4	687.3	592.0	0.0
19 Ps	916.8	854.6	829.0	769.4	0.0
20 P=(Pt+Ps)/2	865.0	803.4	778.1	718.8	0.0
21 Pr=(P/Pcr)	1.31	1.22	1.18	1.09	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.880	.888	.891	.899	0.000

Company	Yates Petroleum Corporation
Well	Corbett "TI" No. 1
Location	A, 3-88-26E
County	Chaves
Date	1/18/83

$P_0^2 - P_w^2$, THOUSANDS



ROF = 2350