

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

Form C-122

c/sf  
File

RECEIVED

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 11/07/82		<b>JAN 11 1983</b>	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company		<b>O. C. D. ARTESIA, OFFICE</b>	
Pool Pecos Slope - Abo Gas				Formation Abo			
Completion Date 05/13/82		Total Depth 4178' 4125.0'		Plug Back TD 4092.0'		Elevation 3893.9'	
Csg Size Wt. 4.500" 9.500#		d Set Rt 4.090" 4142.0'		Perforations: From 3601.0' To 3744.0'		Farm or Lease Name Globe "MN" Federal	
Tbg Size Wt. 2.375" 4.700#		d Set Rt 1.995" 3545.0'		Perforations: From 0.0' To 0.0'		Well No. 3	
Type Well Single				Packer Set At 3545.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 94 @ 3543'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	
L 3545.0'		H 3545.0'		Gg .646		Meter Run 2.000"	
				%CO2 .06		%H2S 0.00	
				%N2 5.98		Proven 0.000"	
						Meter Run 2.000"	
						Taps Flange	

NO	FLOW DATA			TUBING DATA		CASING DATA		Duration of Flow
	Proven Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	
SI	0.000 X 0.000	0	0.0	72	990	0	0	0 hrs.
1.	2.067 X .875	120	39.8	75	780	62	0	24 hrs.
2.	2.067 X .875	130	53.6	72	717	62	0	24 hrs.
3.	2.067 X .875	140	58.0	72	670	62	0	24 hrs.
4.	2.067 X .875	145	81.1	72	586	62	0	24 hrs.
5.	0.000 X 0.000	0	0.0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS

NO	Coefficient (24 HOUR)	$\sqrt{hwP_m}$	Pressure P <sub>m</sub>	Flow Temp Factor Ft.	Gravity Factor F <sub>g</sub>	Super Compress. Fact. F <sub>pv</sub>	Rate of Flow Q, Mcfd
1.	3.729	72.81	133.20	.986	1.244	1.010	336
2.	3.729	87.61	143.20	.989	1.244	1.010	406
3.	3.729	94.26	153.20	.989	1.244	1.011	437
4.	3.729	113.27	158.20	.989	1.244	1.011	525
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	P <sub>r</sub>	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio Dry	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.20	535	1.49	.980	Mcf/bbl.	0.000 Deg.	.646	.646	659.0 PSIA	358.0°R
2.	.22	532	1.49	.980						
3.	.23	532	1.49	.979						
4.	.24	532	1.49	.978						
5.	0.00	0	0.00	0.000						

P <sub>c</sub> 1003.2    P <sub>c</sub> <sup>2</sup> 1006.4				$AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 761 \text{ Mcfd}$	
NO	P <sub>t</sub> <sup>2</sup>	P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	
1.	629.2	794.0	630.5	375.9	
2.	533.2	731.5	535.2	471.3	
3.	466.8	684.9	469.1	537.4	
4.	359.0	602.0	362.4	644.0	
5.	0.0	0.0	0.0	0.0	

Absolute Open Flow    761 Mcfd @ 15.025    Angle of Slope, θ    40    Slope, n    .828

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 11/07/82

COMPANY Yates Petroleum Corporation LEASE Globe "MN" Federal WELL NO. 3

LOCATION: Unit B Section 1 Township 5S Range 24E

L 3545.0 H 3545.0 L/H 1.000 G .646 %O2 .06 %N2 5.98 %H2S 0.00

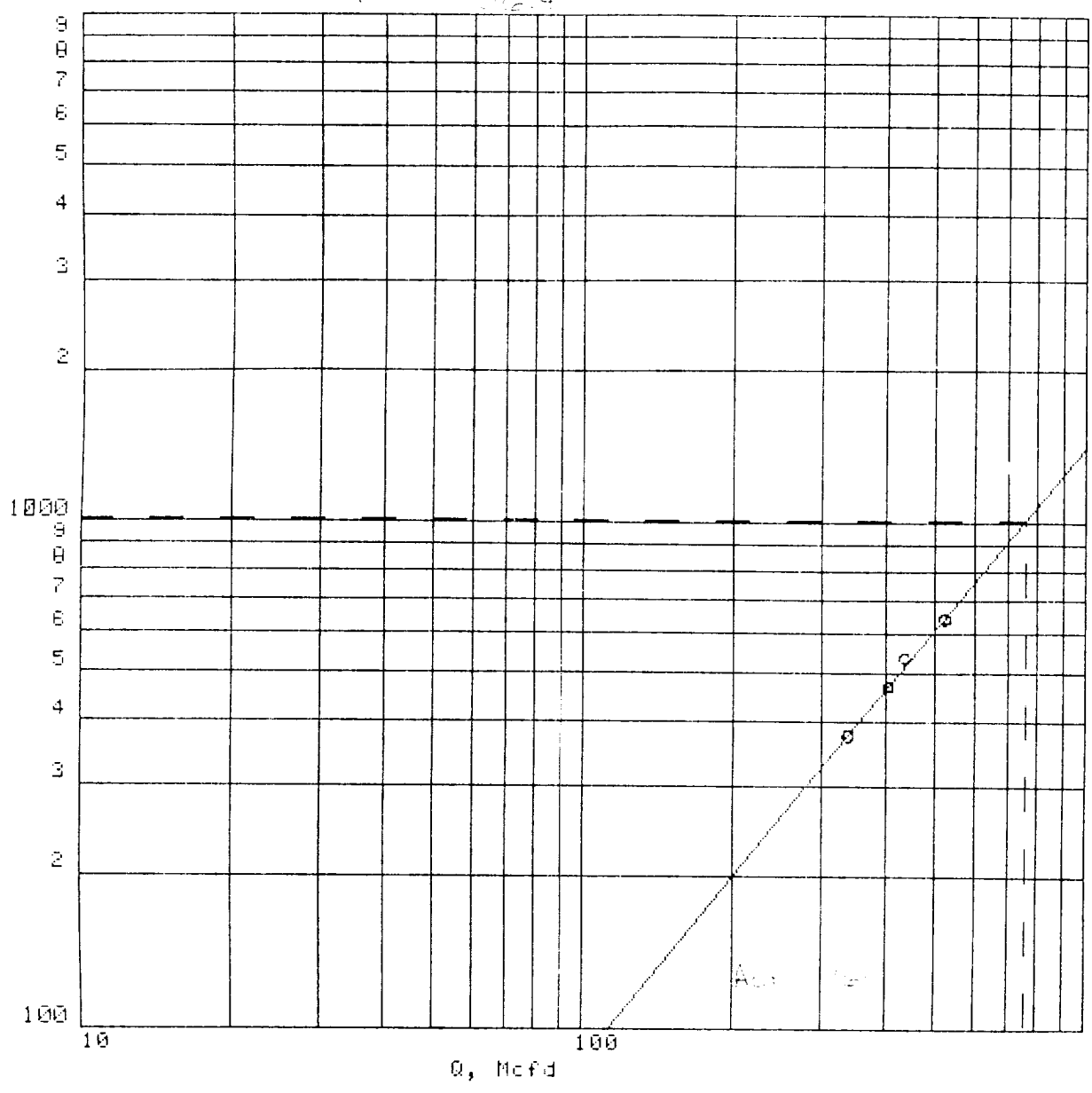
d 1.995 Fr .017777 GH 2290.1 Pcr 659.0 Tcr 358.0

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.336	.406	.437	.525	0.000
2 Tu(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	554.0	554.0	554.0	554.0	0.0
4 T=(Tu+Ts)/2	538.0	538.0	538.0	538.0	0.0
5 Z(Est.)	.881	.890	.896	.909	0.000
6 TZ	473.8	478.6	482.2	488.8	0.0
7 GH/TZ	4.834	4.785	4.749	4.685	0.000
8 e <sup>s</sup> (Table XIV)	1.199	1.196	1.195	1.192	0.000
9 1-e <sup>s</sup> (Table XIV)	.166	.164	.163	.161	0.000
10 Pt	793.2	730.2	683.2	599.2	0.0
11 Pt <sup>2</sup> /1000	629.2	533.2	466.8	359.0	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=Fr <sup>2</sup> Z	8.428	8.512	8.572	8.692	0.000
14 FcQm	2.836	3.455	3.747	4.568	0.000
15 L/H(FcQm) <sup>2</sup>	8.042	11.939	14.040	20.864	0.000
16 Fw=L/H(FcQm) <sup>2</sup> (1-e <sup>-s</sup> )	1.332	1.960	2.290	3.361	0.000
17 Pw <sup>2</sup> =Pt <sup>2</sup> +Fw	630.5	535.2	469.1	362.4	0.0
18 Ps <sup>2</sup> =e <sup>s</sup> Pw <sup>2</sup>	755.7	640.3	560.5	432.0	0.0
19 Ps	869.3	800.2	748.7	657.3	0.0
20 P=(Pt+Ps)/2	831.3	765.2	715.9	628.2	0.0
21 Pr=(P/Pcr)	1.26	1.16	1.09	.95	0.00
22 Tr=(T/Tcr)	1.50	1.50	1.50	1.50	0.00
23 Z(Table XI)	.881	.890	.896	.909	0.000

Company	Yates Petroleum Corporation
Well	Globe "MN" Federal No. 3
Location	B, 1-58-24E
County	Chaves
Date	11/07/82

Flowing

$P_c^2 - P_w^2$ , THOUSANDS



Actual