

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

Form C-122

OCT 14 1983

O. C. D.

ARTESIA, OFFICE

Type Test [x] Initial [] Annual [] Special					Test Date 8/6/83				
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company				
Pool West Pecos Slope					Formation Abo Pool				
Unit									
Completion Date 3/9/82		Total Depth 3446.0'		Plug Back TD 3405.0'		Elevation 4019.0'		Farm or Lease Name Sacaton "SN" State	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 3446.0'	Perforations: From 2974.0' To 3180.0'		Well No. 1			
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3144.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge M 3 7S 23E			
Type Well Single					Packer Set At 3144.0'		County Chaves		
Producing Thru Tubing		Resv. Temp. °F 94 @ 3077'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 3144.0'	K 3144.0'	Gg .633	%CO2 .09	%N2 9.43	%H2S 0.00	Proven 0.000"	Meter Run 2.000"	Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO	Proven Size	Drifrice 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	70	859	0	0	0	0 hrs.
1.	2.067	x .875	410	1.0	70	659	62	0	0	24 hrs.
2.	2.067	x .875	440	1.1	70	596	62	0	0	24 hrs.
3.	2.067	x .875	450	1.6	70	553	62	0	0	24 hrs.
4.	2.067	x .875	470	2.0	70	470	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.	3.729	20.57	423.20	.991	1.257	1.029	98
2.	3.729	22.33	453.20	.991	1.257	1.031	107
3.	3.729	27.22	463.20	.991	1.257	1.031	130
4.	3.729	31.09	483.20	.991	1.257	1.033	149
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.	.65	530	1.56	.945	A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.
2.	.69	530	1.56	.941	Specific Gravity Separator Gas	.633
3.	.71	530	1.56	.940	Specific Gravity Flowing Fluid	.633
4.	.74	530	1.56	.937	Critical Pressure	655.5 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	340.3°R

Pc	872.2	Pc²	760.7
NO	Pt²	Pw	Pw²
1.	451.9	672.3	452.0
2.	371.1	609.3	371.2
3.	320.6	566.4	320.8
4.	233.5	483.5	233.7
5.	0.0	0.0	0.0

$\frac{Pc^2}{Pc^2 - Pw^2} = 1.4488$		$\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1.3366$	
AOF = $Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 199$ Mcfd			

Absolute Open Flow	199 Mcfd @ 15.025	Angle of Slope, 0	38	Slope, n	.783
Remarks:					

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

Adopted 9-1-65

DATE 10/14/83

COMPANY Yates Petroleum Corporation LEASE Sacaton "SN" State WELL NO. 1

LOCATION: Unit M Section 3 Township 7S Range 23E

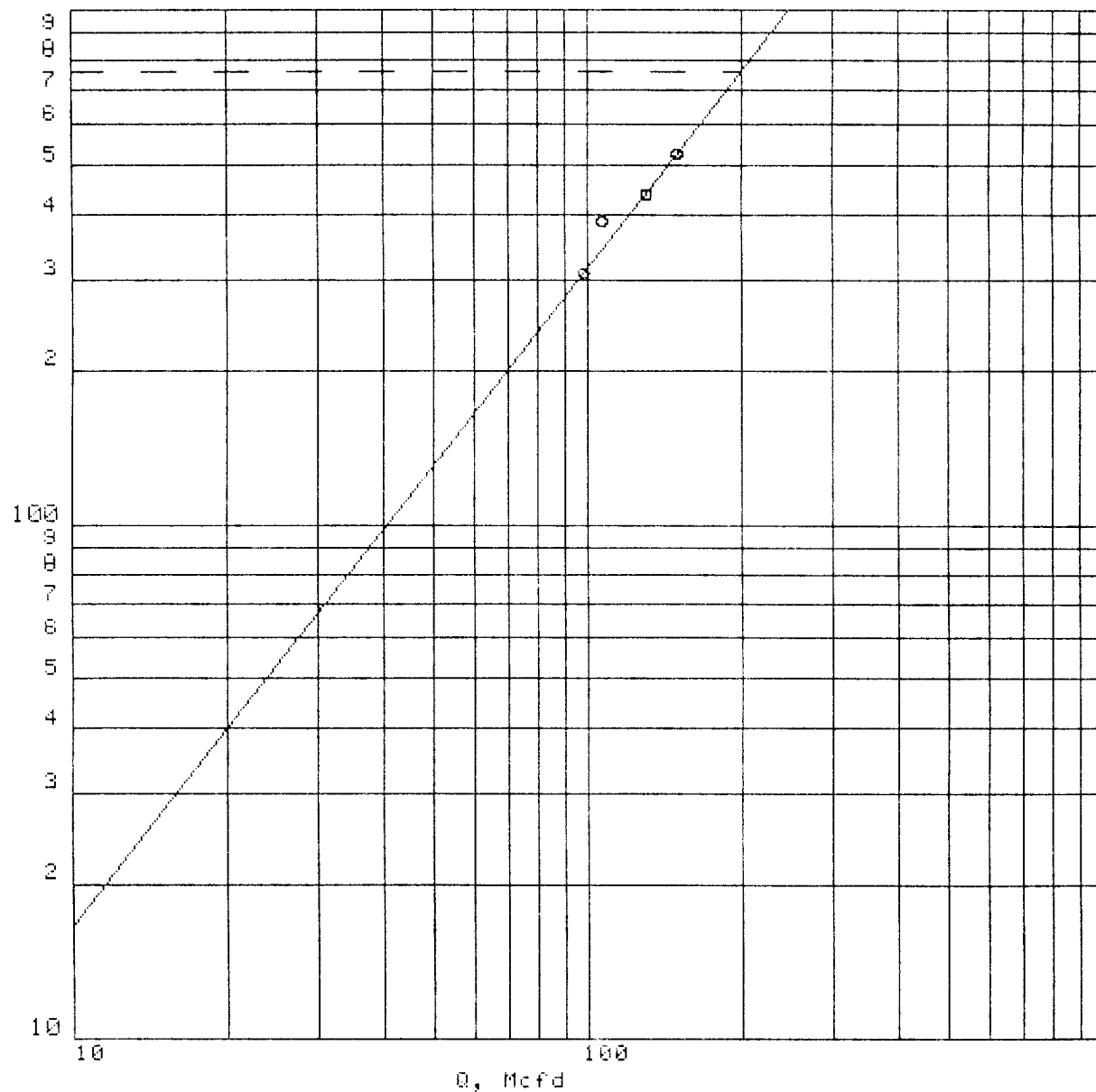
L 3144.0 H 3144.0 L/H 1.000 G .633 %CO2 .09 %N2 9.43 %H2S 0.00

d 1.995 Fr .017777 GH 1990.2 Pcr 655.5 Tcr 340.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.098	.107	.130	.149	0.000
2 Tw(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=(Tw+Ts)/2	538.0	538.0	538.0	538.0	0.0
5 Z(Est.)	.915	.923	.928	.938	0.000
6 TZ	492.4	496.5	499.3	504.8	0.0
7 GH/TZ	4.042	4.009	3.986	3.943	0.000
8 e ^s (Table XIV)	1.164	1.162	1.161	1.159	0.000
9 1-e ^{-s} (Table XIV)	.141	.140	.139	.137	0.000
10 Pt	672.2	609.2	566.2	483.2	0.0
11 Pt ² /1030	451.9	371.1	320.6	233.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.754	8.828	8.977	8.975	0.000
14 FcQm	.860	.943	1.157	1.338	0.000
15 L/H(FcQm) ²	.740	.890	1.340	1.790	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.104	.124	.186	.246	0.000
17 Pw ² =Pt ² +Fw	452.0	371.2	320.8	233.7	0.0
18 Ps ² =e ^s Pw ²	525.9	431.5	372.5	271.0	0.0
19 Ps	725.2	656.9	610.3	520.5	0.0
20 P=(Pt+Ps)/2	698.7	633.0	588.3	501.9	0.0
21 Pr=(P/Pcr)	1.07	.97	.90	.77	0.00
22 Tr=(T/Tcr)	1.58	1.58	1.58	1.58	0.00
23 Z(Table XI)	.915	.923	.928	.938	0.000

Company	Yates Petroleum Corporation
Well	Sacaton "SN" State No. 1
Location	M, 3-7S-23E
County	Chaves
Date	10/14/83

$P_c^2 - P_w^2$, THOUSANDS



ROP= 199