

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

Form C-122

Type Test [x] Initial [] Annual [] Special					Test Date 9/9/84				
Company Yates Petroleum Corporation				Connection Warren Petroleum Company					
Pool Undesignated Bluit				Formation San Andres				Unit	
Completion Date 5/30/84		Total Depth 4940.0'		Plug Back TD 4896.0'		Elevation 3976.0'		Farm or Lease Name Bluestem "ZL" Fed.	
Csg Size 5.500"	Wt. 14.000#	d 5.012"	Set At 4940.0'	Perforations: From 4635.0' To 4790.5'			Well No. 1		
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 4565.0'	Perforations: From 0.0' To 0.0'			Unit Sec Twp Rge G 20 8S 38E		
Type Well Single				Packer Set At 4565.0'			County Roosevelt		
Producing Thru Tubing		Resv. Temp. °F 124 @ 0'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 4565.0'	H 4565.0'	Gg .716	%CO2 4.28	%N2 3.74	%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	70	969	0	0	0	0 hrs.
1.	2.067 X 1.500	58	8.9	70	809	62	0	0	24 hrs.
2.	2.067 X 1.500	59	13.2	70	751	62	0	0	24 hrs.
3.	2.067 X 1.500	60	16.2	70	675	62	0	0	24 hrs.
4.	2.067 X 1.500	60	22.0	70	635	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.	12.748	25.17	71.20	.991	1.182	1.005	378
2.	12.748	30.87	72.20	.991	1.182	1.005	463
3.	12.748	34.44	73.20	.991	1.182	1.006	517
4.	12.748	40.13	73.20	.991	1.182	1.006	602
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.	A.P.I. Gravity of Liquid Hydrocarbons _____ 0.000 Deg.	Specific Gravity Separator Gas .716 xxxxxxxxxxxxxx	Specific Gravity Flowing Fluid xxxxx .716	Critical Pressure _____ 680.2 PSIA	680.2 PSIA	Critical Temperature _____ 376.7°R	376.7°R
1.	.10	530	1.41	.989								
2.	.11	530	1.41	.989								
3.	.11	530	1.41	.989								
4.	.11	530	1.41	.989								
5.	0.00	0	0.00	0.000								

Pc	982.2	Pc ²	964.7
NO	Pt ²	Pw	Pw ²
1.	676.0	823.6	678.3
2.	584.0	766.5	587.6
3.	473.6	691.5	478.1
4.	420.2	652.9	426.3
5.	0.0	0.0	0.0

$(1) \frac{Pc^2}{Pc^2 - Pw^2} = \frac{1.7923}{(2) \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1.5390}$			
$ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 927 \text{ Mcfd}$			

Absolute Open Flow		927 Mcfd @ 15.025	Angle of Slope, 0	36	Slope, n	.739
Remarks: Exception to Field Rule R-5353, approved by Order R-8025.						

Approved By:	Conducted By: Curt Knight	Calculated By: Andrea Carpenter	Checked By:
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RECEIVED
OCT - 7 1985
HOBBS O.C.D.
OFFICE

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

Adopted 9-1-65

DATE 10/4/85

COMPANY Yates Petroleum Corporation LEASE Bluestem "ZL" Fed. WELL NO. 1

LOCATION: Unit G Section 20 Township 8S Range 38E

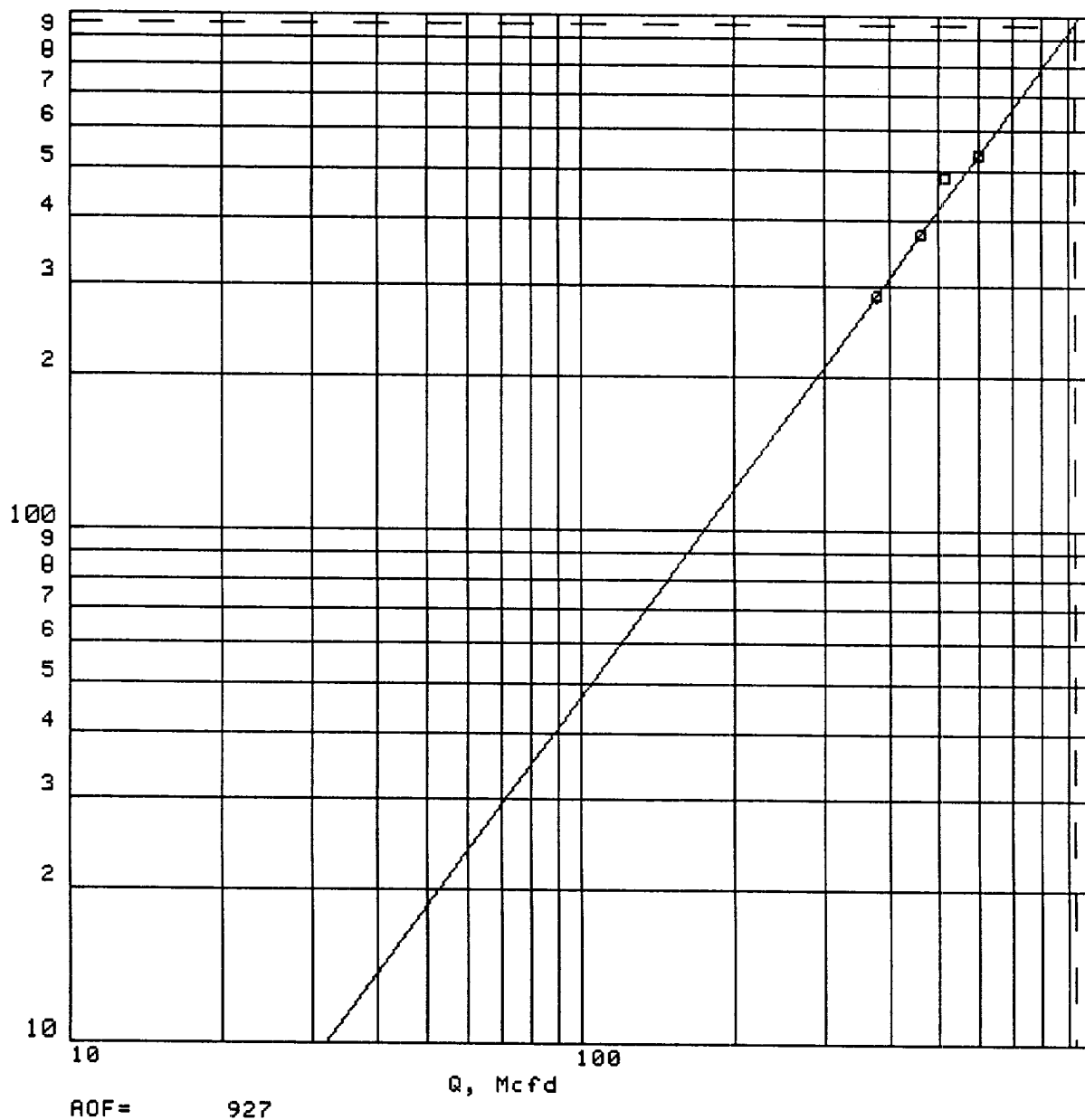
L 4565.0 H 4565.0 L/H 1.000 G .716 %CO₂ 4.28 %N₂ 3.74 %H₂S 0.00

d 1.995 Fr .017777 GH 3268.5 Pcr 680.2 Tcr 376.7

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.378	.463	.517	.602	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	584.0	584.0	584.0	584.0	0.0
4 T=(Tw+Ts)/2	553.0	553.0	553.0	553.0	0.0
5 Z(Est.)	.867	.876	.888	.894	0.000
6 TZ	479.4	484.3	490.8	494.3	0.0
7 GH/TZ	6.818	6.749	6.659	6.613	0.000
8 e ^s (Table XIV)	1.291	1.288	1.283	1.281	0.000
9 1-e ^{-s} (Table XIV)	.226	.224	.221	.219	0.000
10 Pt	822.2	764.2	688.2	648.2	0.0
11 Pt ² /1000	676.0	584.0	473.6	420.2	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.522	8.609	8.733	8.793	0.000
14 FcQm	3.218	3.988	4.513	5.295	0.000
15 L/H(FcQm) ²	10.358	15.901	20.363	28.036	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	2.337	3.556	4.497	6.154	0.000
17 Pw ² =Pt ² +Fw	678.3	587.6	478.1	426.3	0.0
18 Ps ² =e ^s Pw ²	876.0	756.8	613.6	546.2	0.0
19 Ps	935.9	869.9	783.3	739.1	0.0
20 P=(Pt+Ps)/2	879.1	817.1	735.8	693.6	0.0
21 Pr=(P/Pcr)	1.29	1.20	1.08	1.02	0.00
22 Tr=(T/Tcr)	1.47	1.47	1.47	1.47	0.00
23 Z(Table XI)	.867	.876	.888	.894	0.000

Company	Yates Petroleum Corporation
Well	Bluestem "ZL" Fed. No. 1
Location	G, 20-8S-38E
County	Roosevelt
Date	10/4/85

$P_c^2 - P_w^2$, THOUSANDS



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