

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

Adopted 9-1-65

COMPANY Yates Petroleum Corporation LEASE Witz VN State WELL NO. 3

LOCATION: Unit I Section 26 Township 9S Range 26E

L 5893.0 H 5893.0 L/H 1.000 G .647 %CO₂ .03 %N₂ 5.60 %H₂S 0.00

d 2.441 Fr .010495 GH 3812.8 Pcr 661.1 Tcr 355.8

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.462	.608	.695	.761	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	580.0	580.0	580.0	580.0	0.0
4 T=(Tw+Ts)/2	551.0	551.0	551.0	551.0	0.0
5 Z(Est.)	.893	.907	.910	.929	0.000
6 TZ	491.9	499.7	501.3	511.8	0.0
7 GH/TZ	7.751	7.630	7.606	7.449	0.000
8 e ^s (Table XIV)	1.337	1.331	1.330	1.322	0.000
9 1-e ^{-s} (Table XIV)	.252	.249	.248	.244	0.000
10 Pt	777.2	667.2	645.2	503.2	0.0
11 Pt ² /1000	604.0	445.2	416.3	253.2	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	5.162	5.248	5.264	5.373	0.000
14 FcQm	2.383	3.189	3.657	4.087	0.000
15 L/H(FcQm) ²	5.677	10.173	13.371	16.704	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	1.432	2.530	3.316	4.070	0.000
17 Pw ² =Pt ² +Fw	605.5	447.7	419.6	257.3	0.0
18 Ps ² =e ^s Pw ²	809.7	595.9	558.0	340.2	0.0
19 Ps	899.8	771.9	747.0	583.2	0.0
20 P=(Pt+Ps)/2	838.5	719.6	696.1	543.2	0.0
21 Pr=(P/Pcr)	1.27	1.09	1.05	.82	0.00
22 Tr=(T/Tcr)	1.55	1.55	1.55	1.55	0.00
23 Z(Table XI)	.893	.907	.910	.929	0.000