

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

Adopted 9-1-65

DATE 4/22/88

COMPANY Yates Petroleum Corporation LEASE Chumbley XS Com WELL NO. 1

LOCATION: Unit G Section 8 Township 18S Range 26E

L 8703.0 H 8703.0 L/H 1.000 G .680 %CO₂ .39 %N₂ .32 %H₂S 0.00

d 2.441 Fr .010495 GH 5913.9 Pcr 670.4 Tcr 380.7

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	3.933	4.223	4.580	5.309	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	646.0	646.0	646.0	646.0	0.0
4 T=(Tw+Ts)/2	584.0	584.0	584.0	584.0	0.0
5 Z(Est.)	.806	.806	.804	.803	0.000
6 TZ	470.7	470.6	469.8	468.7	0.0
7 GH/TZ	12.565	12.568	12.589	12.617	0.000
8 e ^s (Table XIV)	1.602	1.602	1.603	1.605	0.000
9 1-e ^{-s} (Table XIV)	.376	.376	.376	.377	0.000
10 Pt	2655.2	2649.2	2618.2	2573.2	0.0
11 Pt ² /1000	7050.1	7018.3	6855.0	6621.4	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	4.940	4.939	4.930	4.920	0.000
14 FcQm	19.430	20.858	22.581	26.119	0.000
15 L/H(FcQm) ²	377.520	435.045	509.883	682.195	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	141.841	163.483	191.861	257.142	0.000
17 Pw ² =Pt ² +Fw	7191.9	7181.8	7046.8	6878.5	0.0
18 Ps ² =e ^s Pw ²	11520.3	11505.3	11298.1	11039.7	0.0
19 Ps	3394.2	3391.9	3361.3	3322.6	0.0
20 P=(Pt+Ps)/2	3024.7	3020.6	2989.7	2947.9	0.0
21 Pr=(P/Pcr)	4.51	4.51	4.46	4.40	0.00
22 Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.00
23 Z(Table XI)	.806	.806	.804	.803	0.000