

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

Adopted 9-1-65

DATE 6/11/83

COMPANY Yates Petroleum Corporation LEASE Binnion "TT" Fed WELL NO. 4

LOCATION: Unit P Section 23 Township 7S Range 25E

L 3672.0 H 3672.0 L/H 1.000 G .645 %CO₂ .07 %N₂ 6.53 %H₂S 0.00

d 1.995 Fr .017777 GH 2368.4 Pcr 659.8 Tcr 352.5

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.095	.173	.201	.221	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	560.0	560.0	560.0	560.0	0.0
4 T=(Tw+Ts)/2	541.0	541.0	541.0	541.0	0.0
5 Z(Est.)	.883	.916	.963	.978	0.000
6 TZ	477.9	495.7	521.1	528.9	0.0
7 GH/TZ	4.956	4.778	4.545	4.478	0.000
8 e ^s (Table XIV)	1.204	1.196	1.186	1.183	0.000
9 1-e ^{-s} (Table XIV)	.170	.164	.157	.155	0.000
10 Pt	843.2	593.2	263.2	153.2	0.0
11 Pt ² /1000	711.0	351.9	69.3	23.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.496	8.812	9.264	9.403	0.000
14 FcQm	.804	1.522	1.858	2.079	0.000
15 L/H(FcQm) ²	.646	2.318	3.454	4.321	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.110	.380	.541	.668	0.000
17 Pw ² =Pt ² +Fw	711.1	352.3	69.8	24.1	0.0
18 Ps ² =e ^s Pw ²	856.3	421.4	82.8	28.6	0.0
19 Ps	925.4	649.1	287.7	169.0	0.0
20 P=(Pt+Ps)/2	884.3	621.2	275.5	161.1	0.0
21 Pr=(P/Pcr)	1.34	.94	.42	.24	0.00
22 Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.00
23 Z(Table XI)	.883	.916	.963	.978	0.000