

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

Adopted 9-1-65

DATE 7/7/89

COMPANY Yates Petroleum Corporation LEASE Slinkard UR Fed WELL NO. 3

LOCATION: Unit L Section 12 Township 20S Range 29E

L 11730.0 H 11730.0 L/H 1.000 G 1.048 %CO₂ .37 %N₂ .16 %H₂S 0.00

d 2.441 Fr .010495 GH 12293.0 Pcr 657.7 Tcr 502.8

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.126	.146	.153	.182	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	637.0	637.0	637.0	637.0	0.0
4 T=(Tw+Ts)/2	579.5	579.5	579.5	579.5	0.0
5 Z(Est.)	.648	.606	.555	.495	0.000
6 TZ	375.3	351.1	321.3	287.1	0.0
7 GH/TZ	32.751	35.018	38.256	42.816	0.000
8 e ^s (Table XIV)	3.414	3.716	4.198	4.987	0.000
9 1-e ^{-s} (Table XIV)	.707	.731	.762	.799	0.000
10 Pt	2125.2	1882.2	1585.2	1233.2	0.0
11 Pt ² /1000	4516.5	3542.7	2512.9	1520.8	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	3.940	3.686	3.373	3.011	0.000
14 FcQm	.498	.536	.517	.547	0.000
15 L/H(FcQm) ²	.248	.288	.267	.299	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.175	.210	.203	.239	0.000
17 Pw ² =Pt ² +Fw	4516.6	3542.9	2513.0	1521.0	0.0
18 Ps ² =e ^s Pw ²	15419.1	13165.6	10548.9	7584.8	0.0
19 Ps	3926.7	3628.4	3247.9	2754.1	0.0
20 P=(Pt+Ps)/2	3026.0	2755.3	2416.6	1993.6	0.0
21 Pr=(P/Pcr)	4.60	4.19	3.67	3.03	0.00
22 Tr=(T/Tcr)	1.15	1.15	1.15	1.15	0.00
23 Z(Table XI)	.648	.606	.555	.495	0.000