

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

Adopted 9-1-65

DATE 5/4/88

COMPANY Yates Petroleum Corporation LEASE Slinkard UR Federal WELL NO. 1

LOCATION: Unit H Section 11 Township 20S Range 29E

L 10752.0 H 10752.0 L/H 1.000 G 1.221 %CO₂ .29 %N₂ 1.45 %H₂S 0.00

d 2.441 Fr .010495 GH 13129.5 Pcr 649.1 Tcr 556.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.701	.776	.808	.849	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	670.0	670.0	670.0	670.0	0.0
4 T=(Tw+Ts)/2	596.0	596.0	596.0	596.0	0.0
5 Z(Est.)	.627	.615	.578	.561	0.000
6 TZ	374.0	366.2	344.7	334.2	0.0
7 GH/TZ	35.108	35.849	38.085	39.290	0.000
8 e ^s (Table XIV)	3.732	3.836	4.172	4.361	0.000
9 1-e ^{-s} (Table XIV)	.732	.739	.760	.771	0.000
10 Pt	2000.2	1932.2	1744.2	1653.2	0.0
11 Pt ² /1000	4000.8	3733.4	3042.2	2733.1	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	3.923	3.844	3.618	3.508	0.000
14 FcQm	2.751	2.982	2.924	2.978	0.000
15 L/H(FcQm) ²	7.570	8.891	8.549	8.868	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	5.542	6.573	6.500	6.835	0.000
17 Pw ² =Pt ² +Fw	4006.3	3740.0	3048.7	2739.9	0.0
18 Ps ² =e ^s Pw ²	14953.0	14344.6	12718.7	11949.6	0.0
19 Ps	3866.9	3787.4	3566.3	3456.8	0.0
20 P=(Pt+Ps)/2	2933.6	2859.8	2655.3	2555.0	0.0
21 Pr=(P/Pcr)	4.52	4.41	4.09	3.94	0.00
22 Tr=(T/Tcr)	1.07	1.07	1.07	1.07	0.00
23 Z(Table XI)	.627	.615	.578	.561	0.000