

9
WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 3/8/83

COMPANY Yates Petroleum Corporation LEASE Mescal "SE" Federal WELL NO. 1

LOCATION: Unit C Section 18 Township 21S Range 22E

L 8128.0 H 8128.0 L/H 1.000 G .606 %CO₂ .29 %N₂ .23 %H₂S 0.00

d 2.441 Fr .010495 GH 4927.6 Pcr 672.7 Tcr 356.9

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.897	1.022	1.115	1.345	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.)	.832	.832	.833	.833	0.000
6 TZ	482.3	482.3	482.5	482.6	0.0
7 GH/TZ	10.217	10.216	10.214	10.211	0.000
8 e ^s (Table XIV)	1.467	1.467	1.466	1.466	0.000
9 1-e ^{-s} (Table XIV)	.318	.318	.318	.318	0.000
10 Pt	2127.2	2106.2	2069.2	2043.2	0.0
11 Pt ² /1000	4525.0	4436.1	4281.6	4174.7	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	5.062	5.062	5.065	5.067	0.000
14 FcQm	4.539	5.175	5.648	6.815	0.000
15 L/H(FcQm) ²	20.606	26.784	31.900	46.446	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	6.558	8.524	10.147	14.770	0.000
17 Pw ² =Pt ² +Fw	4531.5	4444.6	4291.7	4189.4	0.0
18 Ps ² =e ^s Pw ²	6646.8	6519.5	6293.7	6142.9	0.0
19 Ps	2578.1	2553.3	2508.7	2478.5	0.0
20 P=(Pt+Ps)/2	2352.7	2329.8	2289.0	2260.9	0.0
21 Pr=(P/Pcr)	3.50	3.46	3.40	3.36	0.00
22 Tr=(T/Tcr)	1.62	1.62	1.62	1.62	0.00
23 Z(Table XI)	.832	.832	.833	.833	0.000