

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

Form 2-122D
Adopted 5-1-65

COMPANY W. A. Moncrief LEASE Spooked Creek ST. A WELL NO. 1 DATE 2-15-82

LOCATION: Unit I Section 2 Township 24 Range 24

L 10,373 L/H 1.000 G .581 %CO₂ 1.24 %N₂ .19 %H₂S

d 1.955 F_i 1018231 CH 6,026.7

P_{CT} 676 T_{CT} 349

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LINE	1 st Rate	2 nd Rate	3 rd Rate	4 th Rate		
1 Q _m	.492	.492	.699	.699	.963	.963
2 T _w (W.H. °F)	534	534	534	534	534	534
3 T _s (B.H. °R)	638	638	638	638	638	638
4 T = ($\frac{L_w + T_s}{2}$)	586	586	586	586	586	586
5 Z (F _{sat})	.864	.859	.867	.862	.875	.868
6 T ₂	506.3	503.4	509.2	505.1	512.8	508.6
7 CH/T ₂	11.903	11.973	11.835	11.931	11.754	11.848
8 e ^s (Table XIV)	1.5626	1.5667	1.5586	1.5643	1.5539	1.5594
9 1-e ^s (Table XIV)	.36006	.36172	.3584	.3607	.3565	.3587
10 P ₁	2018.2	2018.2	1894.2	1894.2	1723.2	1723.2
11 P ₁ 2/1000	4073.1	4073.1	3588.0	3588.0	2969.4	2969.4
12 F ₁ (Table XV)	1018231	.018231	.018231	.018231	.018231	.018231
13 F _c = F ₁ T ₂	9.2304	9.1770	9.2838	9.2091	9.3479	9.2732
14 F _c Q _m	4.541	4.515	6.4894	6.4371	9.0021	8.9301
15 L/H (F _c Q _m) ²	20.624	20.386	42.112	41.437	81.037	79.746
16 F _w = L/H (F _c Q _m) ² (1-e ^s)	7.4258	7.3740	15.0935	14.9470	28.8861	28.6079
17 P _w ² = P ₁ ² + F _w	4080.6	(4080.5)	3603.1	(3602.9)	2998.3	(2998.0)
18 P _s ² = e ^s P _w ²	6376.4	6392.9	5615.9	5635.9	4659.0	4675.2
19 P _s	2525.2	2528.4	2369.8	2374.0	2158.5	2162.2
20 P = ($\frac{P_1 + P_s}{2}$)	2271.7	2273.3	2132.0	2134.1	1940.8	1942.7
21 P _f = (P/P _{CT})	3.36	3.36	3.15	3.15	2.87	2.87
22 T _f = (T/T _{CT})	1.68	1.68	1.68	1.68	1.68	1.68
23 Z (Table XI)	.859	.859	.862	.862	.868	.868