

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

COMPANY Gulf Oil Corp. LEASE Eddy F V St. Com WELL NO. 1 DATE 2-22-82

LOCATION: Unit H 11002 Section 25 Township 20s Range 27e

L 11002 H 11002 L/H 1.000 G .625 % CO₂ 2.298 % N₂ .361 % H₂S

d 1.995 F_r .018231 GH 6876 P_{CT} 678 T_{CT} 365

LINE	1st Rate		2nd Rate		3rd Rate		4th Rate	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
1 Q _m	.242	.242	.339	.339	.401	.401	.426	.426
2 T _w (W.H. °R)	534	534	534	534	534	534	534	534
3 T _s (B.H. °R)	644	644	644	644	644	644	644	644
4 T = ($\frac{T_w + T_s}{2}$)	589	589	589	589	589	589	589	589
5 Z (Est.)	.826	.818	.850	.838	.877	.864	.908	.896
6 TZ	486.5	481.8	500.7	493.6	516.6	508.9	534.8	527.7
7 GH/TZ	14.1	14.3	13.7	13.9	13.3	13.5	12.9	13.03
8 e ^s (Table XIV)	1.699	1.708	1.674	1.686	1.647	1.660	1.620	1.630
9 1-e ^s (Table XIV)	.411	.414	.403	.407	.393	.398	.383	.387
10 P _t	2016.2	2016.2	1518.2	1518.2	1153.2	1153.2	823.2	823.2
11 P _t ² /1000	4065.1	4065.1	2304.9	2304.9	1329.9	1329.9	677.7	677.7
12 F _r (Table XV)	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231
13 F _c = F _r TZ	8.87	8.78	9.13	8.99	9.42	9.28	9.75	9.62
14 F _c Q _m	2.15	2.13	3.09	3.05	3.78	3.72	4.15	4.10
15 L/H (F _c Q _m) ²	4.61	4.52	9.57	9.31	14.26	13.84	17.25	16.80
16 F _w = L/H (F _c Q _m) ² (1-e ^s)	1.90	1.87	3.85	3.79	5.60	5.50	6.60	6.49
17 P _w ² = P _t ² + F _w	4067.0	*4066.9	2308.8	*2308.7	1335.5	*1335.4	684.3	*684.2
18 P _s ² = e ^s P _w ²	6909.5	6945.3	3864.2	3892.7	2200.0	2216.4	1108.2	1115.2
19 P _s	2628.6	2635.4	1965.8	1973.0	1483.2	1488.8	1052.7	1056.0
20 P = ($\frac{P_t + P_s}{2}$)	2322.4	2325.8	1742.0	1745.6	1318.2	1321.0	937.9	939.6
21 P _r = (P/P _{CT})	3.43	3.43	2.57	2.57	1.94	1.95	1.38	1.39
22 T _r = (T/T _{CT})	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61
23 Z (Table XI)	.818	.818	.838	.838	.864	.864	.896	.896