

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

Form C-122D
Adopted 9-1-65

COMPANY Gulf Oil Corporation LEASE Keohane C. Federal WELL NO. # 1 DATE 6-23-78

LOCATION: Unit Section 21 Township 18 Range 31

L 11,500 H 11,500 L/H 1.00 Gmix 696 % CO₂ % N₂ % H₂S

d 1.995 F_i .018231 GH 8004 P_{cr} 669 T_{cr} 388
TABLE IX & X TABLE IX & X

LINE	Rate	1	Rate	2	Rate	3	Rate	4		
1 Q _m	.175	.175	.245	.245	.369	.369	.508	.508		
2 T _w (W.H. °R)	534	534	534	534	534	534	534	534		
3 T _s (B.H. °R)	649	649	649	649	649	649	649	649		
4 T = ($\frac{T_w + T_s}{2}$)	592	592	592	592	592	592	592	592		
5 Z (Est.)	.842	.822	.845	.826	.857	.837	.882	.866		
6 TZ	498.5	486.6	500.2	488.9	507.3	495.5	522.1	512.7		
7 GH/TZ	16,057	16,448	16,000	16,368	15,776	16,153	15,329	15,612		
8 e ^s (Table XIV)	1.826	1.853	1.822	1.847	1.807	1.833	1.777	1.796		
9 1-e ^s (Table XIV)	.4523	.4603	.4512	.4587	.4466	.4543	.4372	.4432		
10 P _t	1153.2	1153.2	1123.2	1123.2	1023.2	1023.2	813.2	813.2		
11 P _t 2/1000	1329.9	1329.9	1261.6	1261.6	1046.9	1046.9	661.3	661.3		
12 F _t (Table XV)	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231		
13 F _c = F _t TZ	9.087	8.872	9.119	8.915	9.249	9.034	9.519	9.347		
14 F _c Q _m	1.590	1.553	2.234	2.184	3.413	3.333	4.836	4.748		
15 L/H (F _c Q _m) ²	2.529	2.410	4.992	4.770	11,649	11,111	23,385	22,544		
16 F _w = L/H (F _c Q _m) ² (1-e ^s)	1.144	1.110	2.253	2.188	5.202	5.048	10,223	9,990		
17 P _w ² = P _t ² + F _w	1331.0	1331.0	1263.8	1263.8	1052.1	1052.0	671.5	671.3		
18 P _s ² = e ^s P _w ²	2430.5	2466.3	2302.9	2334.8	1901.1	1927.9	1193.2	1205.5		
19 P _s	1559.0	1570.4	1517.5	1527.9	1378.8	1388.5	1092.3	1098.0		
20 P = ($\frac{P_t + P_s}{2}$)	1356.1	1361.8	1320.4	1325.6	1201.0	1205.8	952.8	955.6		
21 P _r = (P/P _{cr})	2.03	2.03	1.97	1.98	1.80	1.80	1.42	1.43		
22 T _r = (T/T _{cr})	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53		
23 Z (Table XI)	.822	.822	.826	.825	.837	.837	.866			