

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

Form C-122D
Adopted 9-1-65

COMPANY GULF OIL CORP. LEASE EDDY G Z STATE COM. WELL NO. # 1 DATE 10-27-78

LOCATION: Unit _____ Section 12 Township 19 Range 27

L 9630 H 9630 L/H 1.000 G .800 % CO₂ _____ % N₂ _____ % H₂S _____

d 1.995 F_r .018231 GH 7704 P_{cr} 665 T_{cr} 424
1st 2nd 3rd 4th F₁ & X TABLE IX & X

LINE	1 st	2 nd	1 st	2 nd	1 st	2 nd	1 st	2 nd		
1 Q _m	.238	.238	.328	.328	.461	.461	.628	.628		
2 T _w (W.H. °R)	534	534	534	534	534	534	534	534		
3 T _g (B.H. °R)	630	630	630	630	630	630	630	630		
4 T = ($\frac{T_w + T_s}{2}$)	582	582	582	582	582	582	582	582		
5 Z (Est.)	.730	.699	.752	.716	.768	.733	.794	.762		
6 T _Z	424.9	406.8	437.7	416.7	447.0	426.6	462.1	443.5		
7 GH/T _Z	18.13	18.94	17.60	18.49	17.24	18.06	16.67	17.37		
8 e ^s (Table XIV)	1.9774	2.034	1.935	2.000	1.909	1.968	1.869	1.918		
9 1-e ^s (Table XIV)	.493	.508	.483	.500	.476	.492	.465	.479		
10 P _t	1433.2	1433.2	1288.2	1288.2	1188.2	1188.2	1038.2	1038.2		
11 P _t 2/1000	2054.1	2054.1	1659.5	1659.1	1411.8	1411.8	1077.9	1077.9		
12 F _r (Table XV)	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231		
13 F _c = F _r T _Z	7.746	7.417	7.979	7.597	8.149	7.777	8.425	8.085		
14 F _c Q _m	1.843	1.765	2.617	2.492	3.757	3.585	5.291	5.077		
15 L/H (F _c Q _m) ²	3.398	3.116	6.849	6.209	14.112	12.855	27.992	25.781		
16 F _w ² = L/H (F _c Q _m) ² (1-e ^{-s})	1.677	1.584	3.310	3.105	6.718	6.324	13.011	12.341		
17 P _w ² = P _t ² + F _w ²	2055.7	2055.6	1662.8	1662.6	1418.5	1418.1	1090.9	1090.2		
18 P _s ² = e ^s P _w ²	4057.7	4181.8	3217.4	3325.6	2707.3	2791.4	2038.4	2091.3		
19 P _s	2014.4	2044.9	1793.7	1823.6	1645.4	1670.8	1427.7	1446.1		
20 P = ($\frac{P_t + P_s}{2}$)	1723.8	1739.1	1541.0	1555.9	1416.8	1429.5	1233.0	1242.2		
21 P _r = (P/P _{cr})	2.59	2.62	2.32	2.34	2.13	2.15	1.85	1.87		
22 T _r = (T/T _{cr})	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37		
23 Z (Table XI)	.699	.697	.716	.715	.733	.731	.762	.760		