

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

Form C-122D
Adopted 9-1-65

COMPANY GULF OIL CORP. LEASE EDDY" D " FED. COM. WELL NO. # 1 DATE 10-10-79

LOCATION: Unit F Section 20 Township 18 S Range 31 E

L 11040 H 11040 L/H 1.000 C_{mix} .1.086 % CO₂ .26 % N₂ .1.37 % H₂S 0

d 1.995 F_r .018231 GH 11989 P_{cr} 653 T_{cr} 520

LINE	1 st		2nd		3 rd.		4 th	
	1 st	2 nd	1 st	2 nd	1 st	2 nd	1 st	2 nd
1 Q _m	.188	.188	.266	.266	.355	.355	.513	.513
2 T _w (W.H. °R)	534	534	534	534	534	534	534	534
3 T _s (B.H. °R)	640	640	640	640	640	640	640	640
4 T = ($\frac{1}{2}T_w + T_s$)	587	587	587	587	587	587	587	587
5 Z (Est.)	.438	.622	.423	.586	.425	.526	.457	.456
6 TZ	257.1	365.1	248.3	344.0	249.5	308.8	268.3	267.7
7 GH/TZ	46.632	32.838	48.286	34.855	48.059	38.831	44.694	44.792
8 e ^s (Table XIV)	5.747	3.426	6.115	3.695	6.063	4.289	5.344	5.364
9 1-e ^s (Table XIV)	.826	.708	.836	.729	.835	.767	.813	.814
10 P _t	1723.2	1723.2	1553.2	1553.2	1343.2	1343.2	1128.2	1128.2
11 P _t ² /1000	2969.4	2969.4	2412.4	2412.4	1804.2	1804.2	1272.8	1272.8
12 F _r (Table XV)	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231
13 F _c = F _r TZ	4.687	6.656	4.527	6.271	4.548	5.629	4.891	4.880
14 F _c Q _m	.981	1.251	1.204	1.668	1.615	1.998	2.509	2.503
15 L/H (F _c Q _m) ²	.777	1.566	1.450	2.783	2.607	3.993	6.295	6.267
16 F _w = L/H (F _c Q _m) ² (1-e ^{-s})	.641	1.109	1.213	2.030	2.177	3.062	5.117	5.099
17 P _w ² = P _t ² + F _w	2970.1	2970.5	2413.6	2414.5	1806.4	1807.2	1278.0	1277.9
18 P _s ² = e ^s P _w ²	17069.5	10177.2	14759.1	8922.1	10952.0	7752.0	6829.6	6854.6
19 P _s	4131.5	3190.2	3841.8	2987.0	3309.4	2784.2	2613.4	2618.1
20 P = ($\frac{P_t + P_s}{2}$)	2927.1	2456.7	2697.5	2270.1	2326.3	2063.7	1870.8	1873.2
21 P _r = (P/P _{cr})	4.48	3.76	4.13	2.48	3.56	3.16	2.86	2.87
22 T _r = (T/T _{cr})	1.13	1.13	1.13	1.13	1.13	1/13	1.13	1.13
23 Z (Table XI)	.622	.547	.586	.519	.526	.486	.456	.457