

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw)

Form No. 1
Adapted from

COMPANY Medi Oil LEASE 58 22 2000 WELL NO. 1 DATE 11-2-2000

LOCATION: Unit C Section 17 Township 235 Range 27E

L 11,304 H 11,925 L/H 0.948 G 0.587 % CO₂ 1.46 % N₂ 0.22 % H₂S 0

d 1,995 F₁ 0.18231 CH 7000.0 P_{CT} 678 T_{CT} 313

TABLE IX & X

LINE	1-A	1-B	2-A	2-B	3-C	3-D	4-E	5-F
1 Q _{in}	2,017	2,007	3,024	3,034	3,054	3,111	3,179	3,247
2 T _w (W.H. °R)	520	520	520	520	520	520	520	520
3 T _s (B.H. °R)	644	644	644	644	644	644	644	644
4 T = ($\frac{T_w + T_s}{2}$)	582	582	582	582	582	582	582	582
5 Z (Est.)	.730	.902	.990	.974	.975	.976	.977	.978
6 T _z	541.3	525.0	518.0	503.7	503.2	493.4	482.2	471.0
7 GH/TZ	12.932	13.333	13.513	13.761	13.774	13.773	13.772	13.771
8 e ^s (Table XIV)	1.624	1.647	1.660	1.6753	1.6783	1.6796	1.6800	1.6803
9 1 - e ^s (Table XIV)	0.3332	0.3929	0.3977	0.4031	0.4037	0.4046	0.4048	0.4050
10 P _t	3457	3157	3023	3023	3023	3023	3023	3023
11 P _t ² /1000	11,950	11,950	9,331	9,332	9,332	9,332	9,332	9,332
12 F _r (Table XV)	0.18231	0.18231	0.18231	0.18231	0.18231	0.18231	0.18231	0.18231
13 F _c = F _r T _z	9.868	9.571	9.414	9.274	9.235	9.201	9.170	9.140
14 F _c Q _m	20,693	20,270	28,653	28,137	28,141	36,107	44,171	52,235
15 L/H (F _c Q _m) ²	429.15	381.86	773.70	750.52	752.34	127.51	117.3	206.4
16 F _w = L/H (F _c Q _m) ² (1 - e ^s)	164.92	150.13	309.53	322.53	323.23	444.24	490.00	544.98
17 P _w ² = P _t ² + F _w	12,115	12,100	9,692	9,625	9,635	7,496	7,486	7,476
18 P _s ² = e ^s P _w ²	19,195	19,013	15,501	16,275	16,225	13,533	12,479	12,322
19 P _s	4,436	4,464	3,923	4,023	4,028	3,647	3,561	3,517
20 P = ($\frac{P_t + P_s}{2}$)	2,947	3,961	3,501	3,546	3,546	3,596	3,103	3,103
21 P _t = (P/P _{CT})	5.82	5.84	5.16	5.23	5.23	4.57	4.58	4.58
22 T _t = (T/T _{CT})	1.672	1.672	1.672	1.672	1.672	1.672	1.672	1.672
23 Z (Table XI)	0.902	0.913	0.915	0.917	0.917	0.916	0.916	0.916