

WORKSHEET FOR CALCULATION OF ST. C COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Accepted 9-1-85

COMPANY Getty Oil Company

LEASE State "J"

LOCATION: Unit 3541

Section 17

Township 19

Range 37

DATE

L 3541 H 3541 L/H 1.000 G .677

% CO₂ 1.67 % N₂ 3.97 % H₂S 13.24

d 1.995 F_r .018231 GH 2397

LINE	First	Second	Third	Fourth	P _{cr}	T _{cr}
1 Q _m						
2 T _w (W.H. °R)	784	1208	1458	1622	669	382
3 T _s (B.H. °R)	508					
4 T = ($\frac{T_w + T_s}{2}$)	534					
5 Z (Est.)	.920	.927	.933	.936		
6 TZ	491.3	495.0	498.2	499.8		
7 GH/TZ	4.88	4.84	4.81	4.80		
8 e ^s (Table XIV)	1.201	1.199	1.198	1.197		
9 1-e ^s (Table XIV)	.167	.166	.165	.165		
10 P _t	563.2	563.2	522.2	499.2		
11 P _t ² /1000	317.2	317.2	272.7	249.2		
12 F _r (Table XV)	.018231	.018231	.018231	.018231		
13 F _c = F _r TZ	8.96	9.02	9.08	9.11		
14 F _c Q _m	7.02	7.07	13.2	14.8		
15 L/H (F _c Q _m) ²	49.28	49.98	174.2	219.0		
16 F _w = L/H (F _c Q _m) ² (1-e ^s)	8.23	8.30	28.74	36.14		
17 P _w ² = P _t ² + F _w	325.4	325.5	301.4	285.3		
18 P _s ² = e ^s P _w ²	390.8	376.1	361.1	341.5		
19 P _s	197.7	193.9	190.0	184.8		
20 P = ($\frac{P_t + P_s}{2}$)	380.5	368.1	356.1	342.0		
21 P _r = (P/P _{cr})	.57	.55	.53	.51		
22 T _r = (T/T _{cr})	1.40	1.40	1.40	1.40		
23 Z (Table XI)	.927	.930	.933	.936		