

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_c or P_w)

Form C-122F
Adopted 9-1-65

FROM KNOWN BOTTOM HOLE PRESSURE (P_f or P_s)

COMPANY Belec Pet. Corp LEASE James Ranch Unit WELL NO. 10 DATE 4/28/80

LOCATION: Unit 1 Section 23 Township 30 Range 30

L 12841 H 12841 L/H 1.000 G .605 % CO₂ _____ % N₂ _____ % H₂S _____

GH 7769 P_{cr} 671 T_{cr} 362
TABLE IX & X
1st 2nd 3rd 4th

LINE	1	2	3	4	5	6	7	8
1	$T_w(W.H., °R)$	534	534	534	534	534	534	534
2	$T_s(B.H., °R)$	662	662	662	662	662	662	662
3	$T = \frac{T_w + T_s}{2}$	598	598	598	598	598	598	598
4	Z (Est.)	.858	.842	.854	.840	.847	.835	.838
5	TZ	513.0	503.5	510.7	502.3	506.5	498.3	501.1
6	GH/TZ	15.142	15.429	15.913	15.466	15.338	15.559	15.503
7	e^s (Table XIV)	1.764	1.783	1.769	1.786	1.777	1.792	1.788
8	P_f or P_s	3285.2	3285.2	3208.2	3208.2	3021.2	3021.2	2764.2
9	P_f^2 or P_s^2	10792.5	10792.5	10292.5	10292.5	9127.6	9127.6	7640.8
10	$P_c^2 = P_f^2/e^s$ or $P_w^2 = P_s^2/e^s$	6118.2	6053.0	5818.3	5762.9	5136.5	5093.5	4273.4
11	P_c or P_w	2473.5	2460.3	2412.1	2400.6	2266.4	2256.8	2067.2
12	$P = \frac{P_w + P_s}{2}$ or $\left(\frac{P_c + P_f}{2}\right)$	2879.3	2872.7	2810.2	2804.4	2643.8	2639.0	2415.7
13	$P_r = (P/P_{cr})$	4.25	4.28	4.19	4.18	3.94	3.93	3.60
14	$T_r = (T/T_{cr})$	1.65	1.65	1.65	1.65	1.65	1.65	1.65
15	Z (Table XI)	.842	.842	.840	.840	.835	.835	.836