

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE) PRESSURE
(SURFACE) PRESSURE
(PRESSURE)

Form C-122-E
Adopted 9-1-65

Standard Oil Company

COMPANY of Texas LEASE Bogle Flats Unit WELL NO. 4 DATE 6-8-66

LOCATION: Unit F Section 10 Township 22S Range 23E
L 7074 H 7074 L/H 1.000 G .646 %CO₂ .54 %N₂ .90 %H₂S .36

d 1.995 F_r 0.1823 I_{Qm} 5.231 M² cfd (1/H) (F_r Q_m)² .009095 P_{cr} 673 T_{cr} 368
TABLE IX & X TABLE IX & X

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		0	3527		7074			Delta P = 3 (37.5 GH)			
2	GH		0	2284.90		4569.80			I _t + 4 I ₁ + I ₂			
3	37.5GH		0	85,684		171,368						
4	P _c or P _n		2190.2	2498.2	2499.2	2809.2	2812.2		3 (17,368)			
5	P _r		3.25	3.71	3.71	4.17	4.18		139.312 + 550.716 + 136.380			
6	T		534	563	563	592	592		514,104			
7	T _r		1.45	1.53	1.53	1.61	1.61		826.408			
8	Z		.741	.785	.785	.825	.826					
9	P/Z P/Z	4÷8	2955.7	3182.4	3183.7	3405.1	3404.6		= 622.1			
10	P/VZ	9÷6	5.3350	5.6526	5.6549	5.7519	5.7510					
11	(P/VTZ) ² /1000 (Q) ² /1000		.030636	.031952	.031978	.033084	.033074		P _s = P _r + Delta P			
12	L/H(F _r Q _m) ²		.009095	.009095	.009095	.009095	.009095					
13		11 + 12	.039731	.041047	.041073	.042179	.042169		= 2190.2 + 622.1			
14	I _n	10÷13	139.312	137.710	137.679	136.369	136.380					
15	M=I _n ⁻¹ P _n ⁻¹			308	309	310	313		= 2812.3			
16	N=I _n ⁻¹ +I _n ⁻¹			277.022	276.991	274.048	274.059					
17	M x N	15 x 16							85,780			
18	>> (M x N)	>> 17							171,370			