

XXXXXXXXXXXXXX

WORK SHEET FOR STEPWISE CALCULATION

(P_f & P_s)
PRESSURE
(P_c & P_w)
RATE NO. 4

Form C-122-E

COMPANY Mark Production Company LEASE SECTION 27 TOWNSHIP 18S RANGE 32E DATE 2-25-77

OCATION: UNIT H 12708 L/H 1.00 G 0.759 % CO₂ 0.00 %N₂ 0.00 %H₂S 0.00

d F_r Q_m M² cfd (L/H) (F_r Q_m)² P_{cr} 667 T_{cr} 411

INE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		12708	6354	0							
2	GH		9645	4823	0							
3	37.5GH		361701	180851	0							
4	P _c or P _n		3226.2	2657.9	3089.3	3014.8	3018.5					
5	P _r		4.84	3.98	4.63	4.52	4.53					
6	T		630	585	540	540	540					
7	T _r		1.53	1.42	1.31	1.31	1.31					
8	Z		0.815	0.727	0.698	0.691	0.691					
9	P/Z P/Z		3959.50	3655.96	4424.59	4365.45	4369.59					
10	P/TZ		6.2849	6.2495	8.1937	8.0842	8.0918					
11	(P/TZ ² /1000											
12	L/H(F _r Q _m) ²											
13												
14	I _n		159.111	160.013	122.045	123.699	123.581					
15	M=P _n ⁻¹			568	567	641	637	638				
16	N=1 _n ⁺¹			319.124	282.058	283.711	283.594					
17	M x N			181262			180649					
18	Σ(M x N)			181262			361912					

$$\text{Delta P} = \frac{3[361701]}{159.111 + 4[160.013]} + 123.581 = \frac{1085104}{922.744} = 1176.0$$

$$P = 3226.2 - 1176.0 = 2050.2$$