

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE)

Form C-122-E

(P_f & P_s)

PRESSURE

~~XXXXXXXXXX~~

(P_c & P_w)

RATE NO. 3

COMPANY MESA-PETROLEUM COMPANY

LEASE

HONDO STATE

WELL NO. 1

DATE 5-2-77

LOCATION: UNIT 11126 H 11126 L/H 1.00 G 0.688 % CO₂ 1.17 % N₂ 1.49 % H₂S 0.00
 SECTION 2 TOWNSHIP RANGE
 α F_r Q_m M² cfd (L/H) (F_r Q_m)² P_{cr} 670 T_{cr} 350

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		11126	5563		0						
2	GH		7655	3827		0						
3	37.5GH		287051	143525		0						
4	P _c or P _n		2876.5	2530.8	2523.6	2171.4	2155.3					
5	P _r		4.29	3.78	3.77	3.24	3.22					
6	T		654	592	592	530	530					
7	T _r		1.87	1.69	1.69	1.51	1.51					
8	Z		0.913	0.851	0.852	0.778	0.778					
9	P/Z P/Z	4 ÷ 8	3150.26	2973.59	2961.96	2792.02	2771.00					
10	P/TZ	9 ÷ 6	4.8169	5.0230	5.0033	5.2680	5.2283					
11	(P/TZ) ² /1000	(10 ² /1000)										
12	L/H(F _r Q _m) ²											
13		11 + 12										
14	I _n	10 ÷ 13	207.602	199.086	199.868	189.827	191.267					
15	M=P _n -P _{n-1}			346	353	352	368	367				
16	N=1 _n + 1 _{n-1}			406.688	407.470	389.695	391.134					
17	M x N	15 x 16			143837		143937					
18	Σ(M x N)	Σ 17			143837		287774					

Delta P = 207.602 + 4[199.868] + 191.267 = 861152
 3[287051] = 1198.341
 P = 2876.5 - 718.6 = 2157.9