

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE) PRESSURE (P_f & P_s)
(SURFACE) (P_c & P_w)

Form C-122E
Adopted 9-1-65

Rate 1

COMPANY Grace Petr. Corp. LEASE New Mexico Federal "G" WELL NO. 1 DATE 6-12-80

LOCATION: Unit I Section 6 Township 21 S Range 32 E

L 13983 H 13983 L/H 1.0 G .635 % CO₂ .49 % N₂ .29 % H₂S 0

d — F_r — Q_m — M²cfd (L/H) (F_rQ_m)² — P_{cr} 670 T_{cr} 372

TABLE IX & X

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9
1	H		13983	6992			0				
2	GH		8879	4439			0				
3	37.5GH		332970	166485			0				
4	P _c or P _n		5275.2	4608.8	4590.1	4571.1	3868.7	3860.4	3851.5		
5	P _r		7.87	6.87	6.85	6.82	5.77	5.76	5.75		
6	T		648	593	593	593	538	538	538		
7	T _r		1.74	1.59	1.59	1.59	1.44	1.44	1.44		
8	Z		1.017	.918	.916	.915	.831	.831	.830		
9	P/Z	4÷8	5187.0	5020.5	5011.1	4995.7	4655.5	4645.5	4640.4		
10	P/TZ	9÷6	8.0046	8.4664	8.4504	8.4245	8.6534	8.6347	8.6253		
11	(P/TZ) ² /1000	(10) 2/1000									
12	L/H(F _r Q _m) ²										
13		I ₁ + I ₂									
14	I _n	I ₀ ÷ I ₃	124.927	118.114	118.336	118.701	115.561	115.810	115.937		
15	M = P _n · P _{n-1}			666	685	704	702	711	720		
16	N = I _n + I _{n-1}			249.854	243.041	236.451	237.037	234.262	231.372		
17	M × N	I ₅ × I ₆				166461			166588		
18	Σ (M × N)	Σ ₇				166461			333049		

Delta P₁ = 124.927 - 118.114 = 6.813

124.927 / 14 (118.701 + 115.937) = 222.249 / 715 = 1396.2

P = 5275.2 - 1396.2 = 3879.0

One copy to be filed in District Office (Work copy accepted)