

WORK SHEET FOR STEPWISE CALCULATION

PRESSURE (SURFACE)
PRESSURE (P_c & P_w)
RATE NO. 4

PAY MESA PETROLEUM CORP. LEASE NASH UNIT
SECTION 12 TOWNSHIP 23S RANGE 29E
DATE 10-25-76
12445 H 12445 L/H 1.00 G 0.721 CO₂ 0.00 N₂ 0.00 H₂ 0.00
d P_r 0 M cfd (L/H) (F_rQ_m)² P_{cr} 668 T_{cr} 398

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		12445	6223		0						
2	GH		8973	4486		0						
3	37.5GH		336482	168241		0						
4	P _c or P _n		6129.0	5380.8	5365.7	4602.2	4565.7					
5	P _r		9.18	8.06	8.03	6.89	6.83					
6	T		640	586	586	532	532					
7	T _r		1.61	1.47	1.47	1.34	1.34					
8	Z		1.077	0.991	0.988	0.886	0.881					
9	P/Z P/Z	$\bar{4} \div \bar{8}$	5692.39	5427.48	5428.63	5196.74	5184.78					
10	P/TZ	$\bar{9} \div \bar{6}$	8.8944	9.2619	9.2639	9.7683	9.7458					
11	(P/TZ) ² /1000	(10 ² /1000)										
12	L/H(F _r Q _m) ²											
13		$\bar{11} + \bar{12}$										
14	I _n	$\bar{10} \div \bar{13}$	112.431	107.969	107.946	102.372	102.608					
15	M=P _n -P _{n-1}			748	763	763	800	799				
16	N=I _n +I _{n-1}			220.400	220.377	210.318	210.554					
17	M x N	$\bar{15} \times \bar{16}$			168148		168443					
18	Σ(M x N)	$\Sigma \bar{17}$			168148		336591					

Delta P = $\frac{3[336482]}{112.431 + 4[107.946]} + 102.608$ = $\frac{1009445}{646.823}$ = 1560.6
P = 6129.0 - 1560.6 = 4568.4