WORK SHEET FOR STEPWISE CALCULATION (SUBSURFACE) ~~(SURFACE)~~ PRESSURE (P_f & P_s) ~~(P_c & P_w)~~

Rate #1

NY American Quasar Pet Co. LEASE Brinninstool WELL NO. 1 DATE 6-17-75

ION: UNIT G SECTION 20 TOWNSHIP 23 S RANGE 33 E

5611 H 15611 L/H 1.0 G .578 % CO_2 ____ % N_2 ____ % H_2S ____

d 2.441 F_r .010763 Q_m 2093 M^2cfd (L/H) $(F_rQ_M)^2$ .000507 P_{cr} 672 T_{cr} 350

ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
H		0	7806			15611					
GH		0	4512			9023					
37.5GH		0	169184			338368					
P_c or P_n		7043.2	7994.9	7974.0	7953.3	8862.2	8845.8	8830.0			
P_r		10.48	11.89	11.86	11.83	13.19	13.16	13.14			
T		540	598	598	598	655	655	655			
T_r		1.54	1.71	1.71	1.71	1.87	1.87	1.87			
Z		1.160	1.248	1.247	1.245	1.311	1.310	1.308			
P/Z	$\overline{4} \div \overline{8}$	6050.9	6406.1	6394.6	6388.2	6759.9	6752.5	6750.8			
P/TZ	$\overline{9} \div \overline{6}$	11.7052	10.7216	10.7122	10.6916	10.3204	10.3091	10.3065			
$(P/TZ)^2/1000$	$(10)^2/1000$	.125559	.114953	.114953	.114310	.106514	.10628	.10622			
$L/H(F_rQ_m)^2$		.000507	.000507	.000507	.000507	.000507	.000507	.000507			
	$\overline{11} \div \overline{12}$	.126066	.115460	.115048	.114817	.107019	.106709	.106723			
I_n	$\overline{10} \div \overline{13}$	88.884	92.857	93.026	93.118	96.435	96.539	96.564			
$M=P_n-P_{n-1}$			952	931	910	909	893	877			
$N=I_n+I_{n-1}$			177.767	181.744	185.885	186.146	184.539	192.92			
M × N	$\overline{15} \times \overline{16}$				169155			169239			
Σ(M × N)	Σ $\overline{17}$				169155			338394			

delta P = $\frac{3(338363)}{88.884 + 4(93.118) + 96.564} = \frac{1015105}{557.920} = 1819.4$

P = 7043.2 + 1819.4 = 8862.6