

System		Pipe1		Pipe2	
deltaP	9443.43 psf	L1	600 ft	L2	900 ft
Gamma	62.3 lb/ft3	D1	0.1588 ft	D2	0.1588 ft
Density	1.94 lb-s/ft4	D/E1	3.17600E+04 ft	D/E2	3.18E+04 ft
Dynam	2.04E-05	NR	7.8658E+00	NR	?
Kinema	1.05E-05	F		F	?
E	5.00E-06	Ft		Ft	?
"Q"part1	1.44E-01 ft3/s	V	7.55E+00 ft/s	V2	?
A1	1.91E-02				
A2	1.02E-02				

Solutions	Convert	GPM
Q2solved	1.30E-01	58.15 GPM
Q3solved	5.32E-02	23.90 GPM
Q1new	1.83E-01	82.043 GPM

Assume					Assume				
Iteration	Q1	NR1	D/E1	F1	Ft1	Numerat	F2	D/E2	
1	0.15	1.19E+05	3.18E+04		1.7443E-02	9.73E-03	9.29E+01	0.020000	3.18E+04
1	0.15	1.19E+05	3.18E+04		1.7443E-02	9.73E-03	9.29E+01	0.017593	3.18E+04
1	0.15	1.19E+05	3.18E+04		1.7443E-02	9.73E-03	9.29E+01	0.017374	3.18E+04
1	0.15	1.19E+05	3.18E+04		1.7443E-02	9.73E-03	9.29E+01	0.017353	3.18E+04

Assume					Assume				
Iteration	Q1	NR1	D/E1	F1	Ft1	Numerat	F2	D/E2	
2	0.218	1.73E+05	3.18E+04		1.6245E-02	9.73E-03	3.61E+01	0.020000	3.18E+04
2	0.218	1.73E+05	3.18E+04		1.6245E-02	9.73E-03	3.61E+01	0.019369	3.18E+04
2	0.218	1.73E+05	3.18E+04		1.6245E-02	9.73E-03	3.61E+01	0.019304	3.18E+04
2	0.218	1.73E+05	3.18E+04		1.6245E-02	9.73E-03	3.61E+01	0.019297	3.18E+04

Assume					Assume				
Iteration	Q1	NR1	D/E1	F1	Ft1	Numerat	F2	D/E2	
3	0.173	1.37E+05	3.18E+04		1.6968E-02	9.73E-03	7.56E+01	0.020000	3.18E+04
3	0.173	1.37E+05	3.18E+04		1.6968E-02	9.73E-03	7.56E+01	0.017955	3.18E+04
3	0.173	1.37E+05	3.18E+04		1.6968E-02	9.73E-03	7.56E+01	0.017764	3.18E+04
3	0.173	1.37E+05	3.18E+04		1.6968E-02	9.73E-03	7.56E+01	0.017745	3.18E+04

Assume					Assume				
Iteration	Q1	NR1	D/E1	F1	Ft1	Numerat	F2	D/E2	
4	0.18	1.43E+05	3.18E+04		1.6840E-02	9.73E-03	7.00E+01	0.020000	3.18E+04
4	0.18	1.43E+05	3.18E+04		1.6840E-02	9.73E-03	7.00E+01	0.018095	3.18E+04
4	0.18	1.43E+05	3.18E+04		1.6840E-02	9.73E-03	7.00E+01	0.017916	3.18E+04
4	0.18	1.43E+05	3.18E+04		1.6840E-02	9.73E-03	7.00E+01	0.017898	3.18E+04

Assume					Assume				
Iteration	Q1	NR1	D/E1	F1	Ft1	Numerat	F2	D/E2	
5	0.182	1.44E+05	3.18E+04		1.6804E-02	9.73E-03	6.83E+01	0.020000	3.18E+04

5	0.182	1.44E+05	3.18E+04	1.6804E-02	9.73E-03	6.83E+01	0.018139	3.18E+04
5	0.182	1.44E+05	3.18E+04	1.6804E-02	9.73E-03	6.83E+01	0.017963	3.18E+04
5	0.182	1.44E+05	3.18E+04	1.6804E-02	9.73E-03	6.83E+01	0.017945	3.18E+04

Assume									
Iteration	Q1	NR1	D/E1	F1	Ft1	Numerat	F2	D/E2	
6	0.1826	1.45E+05	3.18E+04		1.6794E-02	9.73E-03	6.78E+01	0.020000	3.18E+04
6	0.1826	1.45E+05	3.18E+04		1.6794E-02	9.73E-03	6.78E+01	0.018152	3.18E+04
6	0.1826	1.45E+05	3.18E+04		1.6794E-02	9.73E-03	6.78E+01	0.017977	3.18E+04
6	0.1826	1.45E+05	3.18E+04		1.6794E-02	9.73E-03	6.78E+01	0.017960	3.18E+04

Pipe3

L3 900 ft
D3 0.1142 ft
D/E3 2.28E+04 ft
NR ?
F ?
Ft ?
V3 ?

Solve					New		Assume		
Ft2	Den2	Q2	V2	NR2	F2	%DIFF2	F3	D/E3	
9.73E-03	4.50E+03	0.143627	7.53E+00	1.14E+05	1.76E-02	-12%	0.02	2.28E+04	
9.73E-03	3.96E+03	0.153103	8.03E+00	1.21E+05	1.74E-02	-1%	1.97E-02	2.28E+04	
9.73E-03	3.91E+03	0.154061	8.08E+00	1.22E+05	1.74E-02	-0.12%	1.96E-02	2.28E+04	
9.73E-03	3.91E+03	0.154155	8.08E+00	1.22E+05	1.74E-02	-0.01%	1.96E-02	2.28E+04	

Solve					New		Assume		
Ft2	Den2	Q2	V2	NR2	F2	%DIFF2	F3	D/E3	
9.73E-03	4.50E+03	0.08956	4.70E+00	7.10E+04	1.94E-02	-3%	0.02	2.28E+04	
9.73E-03	4.36E+03	0.091002	4.77E+00	7.22E+04	1.93E-02	0%	2.18E-02	2.28E+04	
9.73E-03	4.35E+03	0.091154	4.78E+00	7.23E+04	1.93E-02	-0.04%	2.20E-02	2.28E+04	
9.73E-03	4.34E+03	0.09117	4.78E+00	7.23E+04	1.93E-02	0.00%	2.20E-02	2.28E+04	

Solve					New		Assume		
Ft2	Den2	Q2	V2	NR2	F2	%DIFF2	F3	D/E3	
9.73E-03	4.50E+03	0.129602	6.80E+00	1.03E+05	1.80E-02	-10%	0.02	2.28E+04	
9.73E-03	4.04E+03	0.136757	7.17E+00	1.08E+05	1.78E-02	-1%	2.01E-02	2.28E+04	
9.73E-03	4.00E+03	0.137488	7.21E+00	1.09E+05	1.77E-02	-0.11%	2.01E-02	2.28E+04	
9.73E-03	4.00E+03	0.13756	7.21E+00	1.09E+05	1.77E-02	-0.01%	2.01E-02	2.28E+04	

Solve					New		Assume		
Ft2	Den2	Q2	V2	NR2	F2	%DIFF2	F3	D/E3	
9.73E-03	4.50E+03	0.124667	6.54E+00	9.89E+04	1.81E-02	-10%	0.02	2.28E+04	
9.73E-03	4.08E+03	0.13104	6.87E+00	1.04E+05	1.79E-02	-1%	2.03E-02	2.28E+04	
9.73E-03	4.03E+03	0.131694	6.91E+00	1.04E+05	1.79E-02	-0.10%	2.03E-02	2.28E+04	
9.73E-03	4.03E+03	0.131759	6.91E+00	1.04E+05	1.79E-02	-0.01%	2.03E-02	2.28E+04	

Solve					New		Assume		
Ft2	Den2	Q2	V2	NR2	F2	%DIFF2	F3	D/E3	
9.73E-03	4.50E+03	0.12319	6.46E+00	9.77E+04	1.81E-02	-9%	0.02	2.28E+04	

9.73E-03	4.08E+03	0.129334	6.78E+00	1.03E+05	1.80E-02	-1%	2.03E-02	2.28E+04
9.73E-03	4.05E+03	0.129964	6.82E+00	1.03E+05	1.79E-02	-0.10%	2.04E-02	2.28E+04
9.73E-03	4.04E+03	0.130027	6.82E+00	1.03E+05	1.79E-02	-0.01%	2.04E-02	2.28E+04

		Solve			New		Assume	
Ft2	Den2	Q2	V2	NR2	F2	%DIFF2	F3	D/E3
9.73E-03	4.50E+03	0.122741	6.44E+00	9.73E+04	1.82E-02	-9%	0.02	2.28E+04
9.73E-03	4.09E+03	0.128815	6.75E+00	1.02E+05	1.80E-02	-1%	2.03E-02	2.28E+04
9.73E-03	4.05E+03	0.129438	6.79E+00	1.03E+05	1.80E-02	-0.10%	2.04E-02	2.28E+04
9.73E-03	4.04E+03	0.129501	6.79E+00	1.03E+05	1.80E-02	-0.01%	2.04E-02	2.28E+04

		Solve				New		New	Compare
Ft3	DEN3	Q3	V3	NR3	F3	%DIFF3	Q1	%DIFFQ	
1.03E-02	2.35E+04	0.062853	6.16E+00	6.70E+04	1.97E-02	-2%	0.218		45%
1.03E-02	2.31E+04	0.063379	6.21E+00	6.76E+04	1.96E-02	0%			
1.03E-02	2.31E+04	0.063434	6.22E+00	6.76E+04	1.96E-02	-0.02%			
1.03E-02	2.31E+04	0.063439	6.22E+00	6.76E+04	1.96E-02	0.00%			

		Solve				New		New	Compare
Ft3	DEN3	Q3	V3	NR3	F3	%DIFF3	Q1	%DIFFQ	
1.03E-02	2.35E+04	0.039192	3.84E+00	4.18E+04	2.18E-02	9%	0.129		-41%
1.03E-02	2.56E+04	0.037561	3.68E+00	4.01E+04	2.20E-02	1%			
1.03E-02	2.58E+04	0.037384	3.67E+00	3.99E+04	2.20E-02	0.11%			
1.03E-02	2.59E+04	0.037364	3.66E+00	3.98E+04	2.20E-02	0.01%			

		Solve				New		New	Compare
Ft3	DEN3	Q3	V3	NR3	F3	%DIFF3	Q1	%DIFFQ	
1.03E-02	2.35E+04	0.056715	5.56E+00	6.05E+04	2.01E-02	0%	0.194		12%
1.03E-02	2.36E+04	0.056577	5.55E+00	6.03E+04	2.01E-02	0%			
1.03E-02	2.36E+04	0.056563	5.55E+00	6.03E+04	2.01E-02	0.01%			
1.03E-02	2.36E+04	0.056561	5.55E+00	6.03E+04	2.01E-02	0.00%			

		Solve				New		New	Compare
Ft3	DEN3	Q3	V3	NR3	F3	%DIFF3	Q1	%diffQ	
1.03E-02	2.35E+04	0.054556	5.35E+00	5.82E+04	2.03E-02	1%	0.186		3%
1.03E-02	2.38E+04	0.0542	5.31E+00	5.78E+04	2.03E-02	0%			
1.03E-02	2.39E+04	0.054162	5.31E+00	5.78E+04	2.03E-02	0.01%			
1.03E-02	2.39E+04	0.054158	5.31E+00	5.77E+04	2.03E-02	0.00%			

		Solve				New		New	Compare
Ft3	DEN3	Q3	V3	NR3	F3	%DIFF3	Q1	%DIFFQ	
1.03E-02	2.35E+04	0.053909	5.29E+00	5.75E+04	2.03E-02	2%	0.183		0.81%

1.03E-02	2.39E+04	0.05349	5.24E+00	5.70E+04	2.04E-02	0%
1.03E-02	2.39E+04	0.053445	5.24E+00	5.70E+04	2.04E-02	0.02%
1.03E-02	2.39E+04	0.053441	5.24E+00	5.70E+04	2.04E-02	0.00%

		Solve			New		New	Compare
Ft3	DEN3	Q3	V3	NR3	F3	%DIFF3	Q1	%DIFFQ
1.03E-02	2.35E+04	0.053713	5.27E+00	5.73E+04	2.03E-02	2%	0.183	0.07%
1.03E-02	2.39E+04	0.053274	5.22E+00	5.68E+04	2.04E-02	0%		
1.03E-02	2.39E+04	0.053227	5.22E+00	5.68E+04	2.04E-02	0.02%		
1.03E-02	2.39E+04	0.053223	5.22E+00	5.68E+04	2.04E-02	0.00%		