4/

CENTRAL DISTRIBUTION SYSTEM (1994 PEAK HOUR FACTOR = 1.75)

08/22/95

PIPE NO	NODES FROM-TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	CK	--HEADLOSS-- MT	MT/1000	CK
1120	7 20	2000	700.	135	0.146E-05	1342.28	2.58		0.90	1.29	
1121	187 188	1200	414.	125	0.617E-04	185.39	1.94		0.98	2.36	HI
1122	21 116	600	950.	120	0.446E-02	-80.29	3.36	HI	15.02	15.81	HI
1125	29 112	500	1307.	120	0.149E-01	7.11	0.43	LO	0.56	0.43	LO
1127	27 29	600	824.	120	0.387E-02	42.36	1.77		3.99	4.84	HI
1128	189 190	600	750.	125	0.327E-02	16.87	0.71	LO	0.61	0.82	
1129	28 29	500	2060.	120	0.235E-01	-25.39	1.53		9.39	4.56	HI
1130	162 14	450	1150.	120	0.219E-01	12.05	0.90		2.20	1.92	
1131	31 168	2200	576.	130	0.417E-05	822.02	2.56		1.04	1.81	
1132	32 31	2600	950.	130	0.305E-05	946.85	2.11		0.99	1.04	
1133	6120 6122	750	2049.	125	0.301E-02	-30.85	0.83		1.72	0.84	
1134	163 33	600	800.	125	0.349E-02	-13.12	0.55	LO	0.41	0.51	
1136	11 10	750	800.	125	0.118E-02	38.53	1.03		1.02	1.27	
1144	2 6150	300	800.	120	0.110E 00	2.05	-0.34	LO	0.42	0.52	
1145	6000 2	300	700.	125	0.892E-01	12.90	2.16		10.17	14.53	HI
1146	182 62	500	800.	120	0.914E-02	-33.63	2.02		6.14	7.67	HI
1148	137 132	2200	550.	130	0.398E-05	725.20	2.26		0.79	1.43	
1150	136 137	2200	700.	130	0.507E-05	762.61	2.37		1.10	1.57	
1153	128 32	2600	1450.	130	0.465E-05	1024.85	2.28		1.75	1.21	
1154	22 128	2600	248.	130	0.795E-06	1024.85	2.28		0.30	1.21	
1160	168 136	2200	550.	130	0.398E-05	793.69	2.47		0.93	1.69	
1161	8006 30	600	600.	120	0.282E-02	0.0	0.0	LO	0.0	0.0	LO
1162	30 162	450	850.	120	0.162E-01	20.47	1.52		4.34	5.11	HI
1163	10 161	600	850.	120	0.399E-02	17.76	0.74	LO	0.82	0.97	
1164	160 11	750	700.	125	0.103E-02	58.36	1.56		1.92	2.74	HI
1165	6 159	1050	813.	125	0.234E-03	123.89	1.69		1.75	2.15	HI
1166	411 158	3000	1915.	135	0.285E-05	1633.32	2.73		2.54	1.33	
1195	117 116	1050	1250.	125	0.357E-03	155.90	2.13		4.10	3.28	HI
1566	518 553	300	650.	125	0.828E-01	16.12	2.70		14.25	21.93	HI
1567	553 552	300	500.	120	0.687E-01	8.38	1.40		3.52	7.05	HI
1628	620 628	600	400.	120	0.188E-02	33.82	1.41		1.28	3.19	HI
1637	632 636	300	450.	120	0.619E-01	7.95	1.33		2.88	6.39	HI
1638	631 635	200	300.	120	0.297E 00	2.56	0.96		1.69	5.64	HI
1639	627 628	400	300.	125	0.942E-02	-33.82	3.18	HI	6.39	21.31	HI
1641	634 601	400	950.	125	0.298E-01	16.79	1.58		5.54	5.83	HI
1642	620 644	300	180.	120	0.247E 00	11.40	1.91		22.40	12.45	HI
1643	635 636	300	180.	120	0.247E 00	1.24	0.21	LO	0.37	0.21	LO
1701	702 701	300	1050.	125	0.134E 00	1.62	0.27	LO	0.33	0.31	LO
1702	702 703	300	252.	125	0.319E-01	4.66	0.78	LO	0.55	2.20	HI
1712	747 727	600	1000.	125	0.436E-02	48.39	2.02		5.74	5.74	HI
1725	713 725	400	1130.	120	0.383E-01	4.30	-0.40	LO	0.57	0.50	
1727	727 746	600	180.	120	0.846E-03	31.85	1.33		0.51	2.85	HI
1730	701 6015	400	1000.	125	0.314E-01	9.41	0.89		1.99	1.99	
1732	746 728	400	1994.	125	0.626E-01	6.97	0.66	LO	2.28	1.14	
1734	633 701	400	1130.	130	0.230E-01	2.38	-0.22	LO	0.16	0.15	LO
1900	5502 907	2200	2702.	130	0.195E-04	542.55	1.69		2.26	0.84	
1902	906 904	300	1250.	120	0.172E 00	6.67	1.11		5.76	4.61	HI
1903	909 914	2000	480.	125	0.594E-05	411.71	1.55		0.41	0.86	
1904	910 909	2000	665.	125	0.824E-05	415.64	1.56		0.58	0.87	
1906	907 910	2200	2000.	130	0.145E-04	443.59	1.38		1.15	0.58	

PIPE NO	NODES FROM	TO	DIA IN	L (FT)	H-W C	K-VALUE	FLOW	--VEL-- FPS	CK	--HEADLOSS FT	FT/1000	CK
1900	907	900	1050	770.	125	0.220E-03	82.34	1.10		0.78	1.01	
1910	900	901	600	1420.	120	0.669E-02	31.24	1.31		3.92	2.75	HI
1911	901	902	400	605.	120	0.205E-01	11.84	1.31		1.99	3.29	HI
2015	66	173	600	620.	115	0.315E-02	22.90	0.96		1.04	1.68	
2016	719	813	1000	460.	130	0.885E-05	253.37	1.18		0.25	0.54	
2017	8007	8008	300	800.	115	0.119E 00	-1.82	0.30	LO	0.36	0.45	LO
2018	8007	741	250	430.	115	0.155E 00	-1.82	0.44	LO	0.47	1.10	
2019	8008	740	500	350.	115	0.432E-02	-1.63	0.10	LO	0.01	0.03	LO
2023	506	706	400	2730.	115	0.100E 00	5.97	0.56	LO	2.74	1.00	
4109	109	5711	750	1100.	125	0.162E-02	22.85	0.61	LO	0.53	0.48	LO
4400	400	6090	3000	2000.	130	0.320E-05	0.0	0.0	LO	0.0	0.0	LO
4401	404	6085	3000	1500.	130	0.240E-05	-33.37	0.06	LO	0.00	0.00	LO
4411	412	411	3000	555.	135	0.827E-06	1633.32	2.73		0.74	1.33	
4412	6085	412	3000	2735.	135	0.408E-05	1654.89	3.10	HI	4.60	1.68	
4505	502	5502	1800	407.	120	0.908E-05	207.91	0.97		0.18	0.44	LO
4618	616	5618	1500	124.	90	0.114E-04	0.0	0.0	LO	0.0	0.0	LO
4711	5711	711	600	550.	125	0.240E-02	13.21	0.55	LO	0.29	0.52	
4719	719	6509	500	700.	122	0.775E-02	0.0	0.0	LO	0.0	0.0	LO
4726	5711	726	600	700.	125	0.305E-02	9.65	0.40	LO	0.20	0.29	LO
7000	4746	4745	1050	1400.	125	0.400E-03	0.0	0.0	LO	0.0	0.0	LO
7700	1016	4746	1050	400.	125	0.114E-03	0.0	0.0	LO	0.0	0.0	LO
7001	741	747	1200	900.	125	0.134E-03	120.60	1.26		0.96	1.06	
7002	745	741	1200	150.	125	0.223E-04	146.99	1.54		0.23	1.54	
7004	748	717	400	500.	125	0.157E-01	8.67	0.82		0.86	1.71	
7005	21	6122	1050	330.	125	0.942E-04	91.63	1.25		0.40	1.23	
7008	5804	16	666	200.	95	0.871E-03	18.64	0.63	LO	0.19	0.96	
7015	6015	746	600	330.	125	0.144E-02	9.41	0.39	LO	0.09	0.28	LO
7040	6030	1021	1350	275.	125	0.232E-04	68.33	0.56	LO	0.06	0.21	LO
7045	6030	719	1300	1700.	125	0.352E-04	249.64	1.16		0.97	0.57	
7050	900	6040	600	764.	115	0.388E-02	23.12	0.97		1.30	1.71	
7060	132	47	2200	430.	130	0.311E-05	708.63	2.20		0.59	1.37	
8000	40	6000	1050	630.	85	0.367E-03	57.27	0.78	LO	0.66	1.05	
9000	47	66	2200	1300.	130	0.941E-05	604.01	1.88		1.33	1.02	
9010	66	65	2200	700.	130	0.507E-05	472.67	1.47		0.45	0.65	
9015	65	181	2200	1300.	130	0.941E-05	454.67	1.41		0.79	0.60	
9020	181	200	2200	650.	130	0.615E-05	410.06	1.28		0.42	0.50	LO
9036	6120	30	750	50.	125	0.735E-04	30.85	0.83		0.04	0.84	
1024	1024	1026	600	470.	125	0.205E-02	17.90	0.75	LO	0.43	0.91	
1026	1026	1028	300	280.	120	0.385E-01	8.97	1.50		2.24	7.99	HI
1350	254	260	300	925.	130	0.110E 00	-5.37	-0.90		2.46	2.66	HI
1351	13	5804	600	1725.	130	0.697E-02	29.77	1.24		3.74	2.17	HI
1352	17	6122	750	700.	130	0.957E-03	60.78	1.63		1.92	2.75	HI
4502	5502	506	1800	98.	135	0.176E-05	334.64	1.55		0.08	0.85	
259	270	277	300	753.	85	0.195E 00	10.70	1.79		15.73	20.97	HI
260	258	270	600	1075.	120	0.505E-02	7.23	0.30	LO	0.20	0.18	LO
261	255	259	400	750.	60	0.917E-01	-1.64	0.15	LO	0.23	0.30	LO
262	5264	274	600	150.	90	0.120E-02	7.57	0.32	LO	0.05	0.34	LO
263	259	274	400	750.	105	0.325E-01	-7.62	0.72	LO	1.40	1.86	
264	262	269	400	1500.	75	0.121E 00	-2.57	0.24	LO	0.69	0.46	LO
4262	264	5264	600	750.	125	0.327E-02	3.78	0.16	LO	0.04	0.05	LO

43 CENTRAL DISTRIBUTION SYSTEM (1994 PEAK HOUR FACTOR = 1.75) 9/23/93

PIPE NO	NODES FROM	TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	VELOCITY MPS	CK	HEADLOSS MT	MT/1000	CK
265	274	272	500	237.	90	0.554E-02	-6.04	0.24	LO	0.16	0.64	
266	270	282	600	700.	120	0.320E-02	-8.76	0.12	LO	0.02	0.03	LO
267	257	264	600	800.	80	0.797E-02	3.06	0.04	LO	0.28	0.47	LO
268	272	284	500	560.	105	0.819E-02	-7.54	0.65	LO	0.35	0.62	
269	270	272	600	400.	105	0.241E-02	0.42	0.02	LO	0.00	0.00	LO
270	269	293	400	900.	75	0.728E-01	1.72	0.17	LO	0.21	0.24	LO
272	282	280	500	370.	105	0.541E-02	3.30	0.20	LO	0.05	0.13	LO
273	280	283	400	130.	115	0.476E-02	-2.81	0.26	LO	0.03	0.25	LO
274	284	282	500	232.	105	0.485E-02	9.65	0.58	LO	0.32	0.97	
275	293	285	400	850.	105	0.368E-01	12.90	1.21		4.20	4.94	HI
276	286	284	400	250.	105	0.108E-01	19.58	1.84		2.68	10.70	HI
278	288	286	1522	250.	125	0.113E-04	86.96	0.56	LO	0.04	0.18	LO
279	288	299	400	1100.	75	0.889E-01	9.32	0.88		5.54	5.04	HI
280	289	288	1773	600.	108	0.175E-04	107.64	0.52	LO	0.10	0.17	LO
281	290	289	1773	250.	108	0.729E-05	130.93	0.63	LO	0.06	0.24	LO
282	291	290	1773	450.	108	0.131E-04	140.93	0.67	LO	0.13	0.28	LO
283	292	291	1773	300.	108	0.875E-05	140.93	0.67	LO	0.08	0.28	LO
284	292	294	1144	350.	108	0.063E-04	-122.43	1.41		0.63	1.81	
285	281	301	300	600.	65	0.257E 00	4.20	0.70	LO	3.65	6.09	HI
286	296	294	1070	170.	120	0.443E-04	124.90	1.64		0.34	1.99	
288	830	296	1095	600.	128	0.134E-03	126.14	1.53		1.04	1.73	
300	297	300	1095	1100.	123	0.245E-03	24.74	0.31	LO	0.09	0.08	LO
301	285	301	250	450.	75	0.359E 00	0.58	0.14	LO	0.13	0.29	LO
302	300	302	535	1000.	125	0.762E-02	-2.40	0.13	LO	0.04	0.04	LO
303	299	301	400	900.	75	0.728E-01	5.73	0.54	LO	1.84	2.05	HI
824	824	278	300	550.	85	0.143E 00	33.26	5.56	HI	94.21	171.30	HI
826	824	826	300	1600.	125	0.204E 00	3.67	0.61	LO	2.27	1.42	
828	824	828	1112	160.	125	0.345E-04	140.53	1.81		0.36	2.27	HI
830	828	820	1095	180.	128	0.401E-04	140.20	1.76		0.38	2.10	HI
1217	265	264	400	650.	125	0.204E-01	5.49	0.52	LO	0.48	0.74	
1219	266	255	300	400.	125	0.510E-01	9.17	1.53		3.08	7.71	HI
1222	260	266	2000	800.	130	0.921E-05	134.65	0.51	LO	0.08	0.10	LO
1223	266	269	600	300.	125	0.131E-02	26.56	1.11		0.57	1.89	
1224	266	267	2000	650.	130	0.748E-05	92.47	0.35	LO	0.03	0.05	LO
1225	267	292	2000	650.	125	0.805E-05	81.91	0.31	LO	0.03	0.04	LO
1226	287	295	1500	332.	125	0.167E-04	35.32	0.24	LO	0.01	0.04	LO
1227	269	276	400	200.	120	0.677E-02	12.46	1.17		0.72	3.62	HI
1228	286	287	1500	310.	125	0.159E-04	51.78	0.35	LO	0.02	0.08	LO
1229	295	283	400	350.	130	0.102E-01	21.43	2.02		2.98	8.51	HI
1231	287	281	260	300.	65	0.258E 00	4.20	0.93		3.67	12.22	HI
1301	285	301	600	400.	120	0.188E-02	9.92	0.41	LO	0.13	0.33	LO
1302	297	305	1050	2100.	125	0.559E-03	9.62	0.13	LO	0.04	0.02	LO
1305	305	302	1050	800.	125	0.228E-03	9.62	0.13	LO	0.02	0.02	LO
4262	264	264	600	75.	125	0.327E-02	3.78	0.16	LO	0.04	0.05	LO
1800	292	832	1050	55.	125	0.271E-03	45.72	0.62	LO	0.32	0.34	LO
1802	832	934	900	1280.	125	0.774E-03	42.13	0.78	LO	0.79	0.62	
1804	836	834	900	1950.	1250	0.166E-04	-37.35	0.69	LO	0.01	0.01	LO
1815	818	816	1200	600.	130	0.831E-04	92.39	0.97		0.36	0.60	
1806	836	838	900	1850.	125	0.112E-02	23.63	0.44	LO	0.39	0.21	LO
1808	838	840	900	900.	125	0.544E-03	8.67	0.16	LO	0.03	0.03	LO

PIPE NO	NODES FROM	TO	DIA MM	L METRS	H-W C	K-VALUE	FLOW	VEL MPS	CK	HEADLOSS MT	MT/1000	CK
1810	838	842	750	900.	125	0.132E-02	4.82	0.13	LO	0.02	0.03	LO
1812	842	844	400	1050.	120	0.355E-01	3.59	0.34	LO	0.38	0.36	LO
4404	404	405	750	750.	130	0.103E-02	33.37	0.80		0.68	0.91	
4405	405	406	750	1500.	130	0.205E-02	30.59	0.82		1.16	0.77	
4408	406	408	600	1200.	130	0.527E-02	19.83	0.83		1.33	1.02	
4406	406	407	500	1200.	120	0.137E-01	6.58	0.40	LO	0.45	0.37	LO
1106	6	5	900	1200.	130	0.680E-03	80.62	1.65		2.75	2.27	HI
1104	5	4	900	950.	130	0.534E-03	60.78	1.30		1.39	1.46	
1101	4	1	750	2100.	130	0.298E-02	62.17	1.66		6.26	2.86	HI
3096	1	2084	750	1157.	130	0.158E-02	20.38	0.55	LO	-0.42	0.36	LO
3097	2084	2085	500	1051.	120	0.131E-01	4.37	0.29	LO	0.23	0.21	LO
3098	4	2086	450	1059.	120	0.202E-01	3.89	0.29	LO	0.25	0.24	LO
3099	2086	2087	300	1177.	110	0.190E 00	0.0	0.0	LO	0.0	0.0	LO
4206	277	276	300	0.	0	0.137E 03	-0.88	0.0	LO	105.96	0.0	LO
4000	124	126	750	0.	0	0.350E-06	27.36	0.0	LO	0.00	0.0	LO
4007	81	82	900	0.	0	0.169E-06	-9.93	0.0	LO	0.00	0.0	LO
4804	6090	404	3000	0.	0	0.137E-08	0.0	0.0	LO	0.0	0.0	LO
4806	818	6115	1200	0.	0	0.534E-07	160.98	0.0	LO	0.00	0.0	LO
4807	27	25	1050	0.	0	0.911E-07	-11.50	0.0	LO	0.00	0.0	LO
5208	295	297	0	0.	0	0.124E-02	11.37	0.0	LO	29.67	0.0	LO
502	504	505	0	0.	0	0.784E-21	197.87	0.0	LO	45.96	0.0	LO
645	609	607	0	0.	0	0.155E-03	132.39	0.0	LO	16.30	0.0	LO
5204	243	2043	0	0.	0	0.0	69.09	0.0	LO	0.0	0.0	LO
5802	738	5800	0	0.	0	0.154E-02	121.75	0.0	LO	9.35	0.0	LO
5804	816	815	0	0.	0	0.900E-02	275.40	0.0	LO	10.44	0.0	LO

45 CENTRAL DISTRIBUTION SYSTEM (1994 PEAK HOUR FACTOR = 1.75)

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SQCM	CK	PCT DROP	CK
1	21.0	41.79	42.52U	20.72	2.07		59.53	HI
2	12.0	10.85	37.50U	25.50	2.55		58.20	HI
3	11.0	17.90	26.16U	15.16	1.52		75.55	HI
4	16.1	3.72	49.78U	22.68	3.27		42.57	HI
5	9.1	18.84	50.15U	41.06	4.11		35.74	HI
6	26.0	25.85	52.91U	26.91	2.69		42.74	HI
7	30.0	6.67	55.87U	25.87	2.59		39.84	HI
8	11.5	7.95	43.16U	31.66	3.17		48.52	HI
10	11.5	10.38	42.77U	31.27	3.13		49.15	HI
11	12.0	11.92	43.79U	31.79	3.18		47.88	HI
12	12.0	11.92	46.78U	34.78	3.48		42.99	HI
13	13.0	7.95	48.23U	35.23	3.52		41.28	HI
14	12.0	13.80	41.89U	29.89	2.99		51.01	HI
15	12.0	22.35	41.48U	29.48	2.95		51.67	HI
16	18.0	29.83	44.69U	26.69	2.67		51.47	HI
17	22.0	39.87	48.27U	26.27	2.63		48.49	HI
18	26.0	26.62	51.79U	25.79	2.58		45.12	HI
19	23.0	16.62	51.26U	23.26	2.33		48.31	HI
20	20.0	32.77	54.96U	24.96	2.50		41.95	HI
21	26.0	48.67	36.59U	10.59	1.06		77.46	HI
22	22.0	33.80	53.64U	21.64	2.16		47.23	HI
25	20.0	10.00	46.86U	26.86	2.69		49.32	HI
27	20.0	13.50	46.86U	26.86	2.69		49.32	HI
28	22.0	18.23	33.49U	11.49	1.15		77.48	HI
29	20.0	9.87	42.87U	22.87	2.29		56.84	HI
30	12.0	10.38	48.43U	36.42	3.64		40.28	HI
31	20.0	33.20	50.60U	30.60	3.06		42.26	HI
32	25.0	26.58	51.59U	26.59	2.66		44.61	HI
33	11.0	9.79	40.91U	29.91	2.99		51.75	HI
35	15.0	9.44	38.42U	23.42	2.34		59.62	HI
36	30.0	28.89	50.91U	20.91	2.09		51.38	HI
37	26.0	15.04	48.99U	22.99	2.30		51.09	HI
38	24.0	0.0	48.55U	24.55	2.46		49.89	HI
39	22.0	16.49	48.38U	26.38	2.64		48.27	HI
40	20.0	7.56	48.33U	28.33	2.83		46.55	HI
41	12.0	9.79	26.67U	14.67	1.47		75.95	HI
42	13.0	9.79	42.15U	29.15	2.92		51.41	HI
43	12.0	9.79	41.28U	29.28	2.93		51.99	HI
45	12.0	13.03	32.43U	20.43	2.04		66.51	HI
46	13.0	9.79	42.87U	29.87	2.99		50.22	HI
47	12.0	15.13	46.14U	34.14	3.41		44.03	HI
48	12.0	9.79	34.87U	22.87	2.29		62.50	HI
49	12.0	9.79	30.50U	18.50	1.85		69.68	HI
50	12.0	9.79	27.72U	15.72	1.57		74.23	HI
51	12.0	12.35	26.53U	14.53	1.45		76.18	HI
52	12.0	10.21	27.48U	15.48	1.55		74.62	HI
53	12.0	9.79	26.78U	14.98	1.50		75.44	HI
54	13.0	14.57	26.15U	13.15	1.32		78.08	HI
55	12.0	12.73	25.46U	13.46	1.35		77.93	HI
56	12.0	13.84	2.01U	-9.99	-1.00	LO	116.37	HI

CENTRAL DISTRIBUTION SYSTEM (1994 PEAK HOUR FACTOR = 1.75) 09/23/95

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SQCM	CK	PCT DROP	CK
57	13.0	11.62	26.26U	13.26	1.33		77.91	HI
58	12.0	20.39	45.88U	33.88	3.39		44.45	HI
59	17.0	10.73	46.95U	29.90	2.99		46.60	HI
60	12.0	-44.01	26.64U	14.64	1.46		76.00	HI
61	20.0	17.95	47.92U	27.92	2.79		47.32	HI
62	13.0	-12.22	43.52U	30.52	3.05		49.14	HI
63	16.0	18.29	46.91U	30.91	3.09		45.78	HI
64	20.0	-18.29	46.97U	26.97	2.70		49.12	HI
65	12.0	6.49	44.36U	32.36	3.24		46.95	HI
66	12.0	9.79	44.82U	32.82	3.28		46.20	HI
67	12.0	13.02	37.70U	25.78	2.58		57.74	HI
68	12.0	6.49	29.74U	17.74	1.77		70.92	HI
69	12.0	9.79	33.01U	21.01	2.10		65.56	HI
70	12.0	12.45	27.56U	15.56	1.56		74.49	HI
71	12.0	0.0	27.94U	15.94	1.59		73.87	HI
72	12.0	13.03	26.98U	14.98	1.50		75.44	HI
73	12.0	4.40	26.98U	14.98	1.50		75.43	HI
74	12.0	-4.40	27.01U	15.01	1.50		75.40	HI
75	12.0	-14.96	41.62U	29.62	2.96		51.44	HI
76	12.0	-8.46	28.21U	16.21	1.62		73.43	HI
77	12.0	-4.40	27.44U	15.44	1.54		74.68	HI
78	12.0	-2.21	27.17U	15.17	1.52		75.13	HI
79	12.0	-8.08	27.00U	15.00	1.50		75.41	HI
80	12.0	-12.35	27.00U	15.00	1.50		75.40	HI
81	12.0	0.0	27.00U	15.00	1.50		75.41	HI
82	12.0	-2.14	27.00U	15.00	1.50		75.41	HI
83	12.0	-6.24	27.65U	15.65	1.57		74.34	HI
84	13.0	13.97	27.38U	14.38	1.44		76.03	HI
85	13.0	-0.0	27.76U	14.76	1.48		75.40	HI
86	12.0	-4.40	27.18U	15.18	1.52		75.11	HI
87	12.0	0.0	27.71U	15.71	1.57		74.24	HI
88	13.0	-2.48	28.59U	15.59	1.56		74.02	HI
89	13.0	-14.61	28.24U	15.24	1.52		74.61	HI
90	13.0	-2.48	29.01U	16.01	1.60		73.31	HI
91	12.0	-3.72	29.22U	17.22	1.72		71.76	HI
92	13.0	-20.17	29.03U	16.03	1.60		73.28	HI
93	13.0	-6.71	31.66U	18.66	1.87		68.89	HI
94	13.0	-20.25	36.85U	23.85	2.39		60.25	HI
95	13.0	-6.92	32.41U	19.41	1.94		67.64	HI
96	12.0	-4.14	31.58U	19.58	1.96		67.90	HI
97	13.0	-2.73	37.57U	24.57	2.46		59.05	HI
98	13.0	-4.14	41.91U	28.91	2.89		51.82	HI
99	12.0	-4.14	43.52U	31.52	3.15		48.32	HI
100	12.0	-18.67	43.76U	31.76	3.18		47.94	HI
101	12.0	-23.25	44.49U	32.49	3.25		46.75	HI
104	18.0	0.0	46.39U	28.39	2.84		48.39	HI
105	22.0	-15.72	47.42U	25.42	2.54		50.16	HI
106	14.0	0.0	47.39U	33.39	3.34		43.41	HI
107	32.0	0.0	49.13U	17.18	1.72		58.10	HI
108	11.0	22.60	42.80U	31.80	3.18		48.71	HI

47 CENTRAL DISTRIBUTION SYSTEM (1994 PEAK HOUR FACTOR = 1.75)

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SQ-CK	PCT DROP-CK	
109	12.0	0.0	41.08U	29.08	2.91	52.33	HI
111	12.0	2.73	41.90U	29.90	2.99	50.99	HI
112	20.0	6.11	50.83U	30.83	3.08	41.83	HI
113	28.0	9.66	42.31U	14.31	1.43	69.20	HI
114	30.0	10.73	48.80U	18.30	1.88	56.28	HI
115	27.0	17.65	50.26U	23.26	2.33	49.43	HI
116	20.0	3.59	51.62U	25.62	2.56	45.49	HI
117	20.0	14.74	55.72U	17.72	1.77	49.37	HI
118	12.0	0.0	45.88U	33.88	3.39	44.45	HI
119	12.0	0.0	45.87U	33.87	3.39	44.47	HI
122	20.0	0.0	48.33U	28.33	2.83	46.55	HI
123	26.0	0.0	51.61U	25.61	2.56	45.51	HI
124	26.0	0.0	51.44U	25.44	2.54	45.88	HI
126	26.0	0.0	51.44U	25.44	2.54	45.88	HI
128	30.0	0.0	53.34U	23.34	2.33	45.73	HI
132	12.0	6.92	46.74U	34.74	3.47	43.06	HI
135	24.0	23.20	55.07U	31.07	3.11	36.59	HI
136	13.0	9.79	43.63U	30.63	3.06	40.62	HI
137	12.0	13.03	47.52U	35.52	3.55	41.76	HI
138	12.0	10.38	41.87U	29.87	2.99	51.03	HI
152	26.0	7.56	49.60U	23.60	2.36	49.79	HI
153	30.0	11.71	43.85U	13.85	1.38	67.80	HI
154	28.0	4.57	40.68U	12.68	1.27	71.83	HI
155	18.0	3.97	47.34U	29.34	2.93	46.66	HI
156	18.0	18.63	41.76U	23.76	2.38	56.80	HI
157	16.0	15.13	40.90U	24.90	2.49	56.31	HI
158	30.0	14.74	57.12U	27.12	2.71	36.94	HI
159	24.0	7.95	51.16U	27.16	2.72	44.58	HI
160	11.0	7.55	45.71U	34.71	3.47	44.02	HI
161	12.0	12.90	41.95U	29.95	3.00	50.90	HI
162	12.0	9.42	44.09U	32.09	3.21	47.40	HI
163	12.0	13.12	40.50U	28.50	2.85	53.27	HI
164	20.0	16.62	51.80U	21.80	2.18	49.30	HI
165	27.0	8.80	47.91U	20.91	2.09	54.55	HI
166	12.0	28.97	43.10U	31.10	3.11	49.02	HI
167	28.0	27.99	54.31U	26.31	2.63	41.52	HI
168	12.0	28.33	49.56U	37.56	3.76	38.43	HI
169	22.0	8.46	43.94U	21.94	2.19	56.97	HI
170	12.0	9.79	40.94U	28.94	2.89	52.56	HI
171	12.0	9.79	41.52U	29.52	2.95	51.60	HI
172	12.0	6.49	42.77U	30.77	3.08	49.56	HI
173	12.0	9.79	43.78U	31.78	3.18	47.91	HI
174	12.0	9.79	36.27U	24.27	2.43	60.22	HI
175	12.0	9.79	28.57U	16.57	1.66	72.83	HI
176	26.0	2.18	41.93U	15.93	1.59	66.10	HI
178	12.0	22.13	25.07U	13.07	1.31	78.57	HI
179	12.0	11.62	-0.99U	-12.99	-1.30	LO 121.29	HI
180	12.0	6.49	42.38U	30.38	3.04	50.20	HI
181	12.0	12.65	43.58U	31.58	3.16	48.24	HI
182	12.0	14.57	37.38U	25.38	2.54	58.39	HI

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SQ CM	CK	PCT DROP	CK
183	12.0	14.67	43.59U	31.59	3.16		48.21	HI
184	16.0	17.00	47.27U	31.27	3.11		45.43	HI
185	12.0	10.73	49.16U	37.16	3.72		39.08	HI
186	14.0	4.40	45.60U	31.60	3.16		46.45	HI
187	26.0	20.25	57.90U	31.90	3.19		40.82	HI
188	24.0	14.74	56.92U	32.92	3.29		41.23	HI
189	28.0	14.74	33.98U	5.98	0.60		86.70	HI
190	22.0	23.93	33.37U	11.37	1.14		77.70	HI
191	30.0	17.86	49.32U	19.32	1.93		55.08	HI
192	12.0	7.86	10.20U	-1.80	-0.18	LO	102.95	HI
193	12.0	16.45	25.40U	13.40	1.34		78.04	HI
200	13.0	6.62	43.15U	30.15	3.02		49.75	HI
201	12.0	8.85	37.92U	25.92	2.59		57.51	HI
202	12.0	14.14	35.12U	23.12	2.31		62.10	HI
203	13.0	4.96	39.26U	26.26	2.63		56.23	HI
204	13.0	0.0	39.26U	26.26	2.63		56.23	HI
206	12.0	3.93	31.04U	19.04	1.90		68.79	HI
208	13.0	5.90	30.40U	17.40	1.74		71.00	HI
210	12.0	3.16	30.41U	18.41	1.84		69.82	HI
211	11.0	15.30	30.42U	19.42	1.94		68.68	HI
212	11.0	-22.99	30.48U	19.48	1.95		68.58	HI
214	12.0	5.90	29.72U	17.72	1.77		70.95	HI
216	13.0	17.26	41.85U	28.85	2.88		51.92	HI
217	11.0	23.16	26.61U	15.61	1.56		74.83	HI
218	12.0	25.08	41.84U	29.84	2.98		51.09	HI
220	12.0	2.26	42.03U	30.03	3.00		50.77	HI
222	12.0	21.11	33.66U	21.66	2.17		64.49	HI
223	12.0	25.94	43.97U	31.97	3.20		47.60	HI
224	12.0	25.47	29.80U	17.80	1.78		70.82	HI
226	12.0	11.45	29.45U	17.45	1.74		71.40	HI
228	12.0	9.49	34.10U	22.10	2.21		63.78	HI
230	13.0	12.65	41.67U	28.67	2.87		52.22	HI
232	12.0	15.34	29.44U	17.44	1.74		71.40	HI
234	13.0	15.34	35.35U	22.35	2.23		62.75	HI
236	13.0	12.78	41.47U	28.47	2.85		52.55	HI
238	13.0	18.72	41.15U	28.15	2.81		53.09	HI
240	12.0	10.94	40.99U	28.99	2.90		52.48	HI
242	12.0	26.54	40.71U	28.71	2.87		52.94	HI
243	13.0	0.0	40.99U	27.99	2.80		53.35	HI
244	13.0	21.84	40.92U	27.92	2.79		53.47	HI
246	13.0	15.81	40.14U	27.14	2.71		54.77	HI
247	18.0	7.48	42.89U	24.89	2.49		54.74	HI
248	12.0	12.43	39.63U	27.63	2.76		54.70	HI
249	12.0	9.32	40.19U	28.19	2.82		53.79	HI
250	12.0	12.26	39.91U	27.91	2.79		54.24	HI
251	12.0	0.0	37.27U	25.27	2.53		58.58	HI
252	13.0	0.0	38.85U	25.85	2.58		56.92	HI
253	12.0	5.94	39.63U	27.63	2.76		54.70	HI
254	12.0	11.58	38.56U	26.56	2.66		56.45	HI
255	13.0	5.98	35.67U	22.67	2.27		62.22	HI

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SQCM	CK	PCT DROP	CK
256	12.0	7.65	41.15U	29.15	2.91		52.21	HI
257	13.0	5.98	37.76U	24.76	2.48		58.73	HI
258	13.0	11.04	37.65U	24.65	2.46		58.92	HI
259	13.0	5.98	35.98U	22.98	2.29		61.84	HI
260	13.0	10.64	41.03U	28.03	2.80		53.29	HI
262	13.0	17.35	39.69U	26.69	2.67		55.52	HI
263	14.0	15.04	37.64U	23.64	2.36		59.94	HI
264	12.0	5.98	37.38U	25.38	2.54		58.39	HI
265	12.0	3.67	37.86U	25.86	2.59		57.60	HI
266	13.0	6.45	40.95U	27.95	2.79		53.42	HI
267	13.0	10.55	40.91U	27.91	2.79		53.48	HI
268	19.0	23.07	22.97U	3.97	0.40	LO	92.66	HI
269	13.0	9.74	40.38U	27.38	2.74		54.37	HI
270	12.0	9.57	37.45U	25.45	2.55		58.28	HI
271	18.0	8.80	-45.61U	-63.61	-6.36	LO	215.65	HI
272	13.0	1.92	37.45U	24.45	2.45		59.25	HI
273	14.0	10.30	2.45U	-11.55	-1.15	LO	119.57	HI
274	13.0	5.98	37.29U	24.29	2.43		59.51	HI
276	13.0	11.58	39.66U	26.66	2.67		55.57	HI
277	13.0	11.58	-66.30U	-79.30	-7.93	LO	232.17	HI
278	16.0	22.56	-50.58U	-66.58	-6.66	LO	216.80	HI
280	12.0	6.11	37.42U	25.42	2.54		58.32	HI
281	13.0	0.0	36.78U	23.78	2.38		60.36	HI
282	13.0	3.59	37.47U	24.47	2.45		59.21	HI
283	13.0	5.73	37.46U	24.46	2.45		59.24	HI
284	13.0	2.39	37.80U	24.80	2.48		58.67	HI
285	13.0	2.39	33.26U	20.26	2.03		66.23	HI
286	13.0	15.60	40.47U	27.47	2.75		54.22	HI
287	13.0	12.26	40.45U	27.45	2.74		54.25	HI
288	13.0	11.37	40.52U	27.52	2.75		54.14	HI
289	12.0	23.29	40.62U	28.62	2.86		53.09	HI
290	12.0	10.00	40.68U	28.68	2.87		52.99	HI
291	14.0	0.0	40.80U	26.80	2.68		54.57	HI
292	14.0	17.69	40.89U	26.89	2.69		54.43	HI
293	14.0	1.79	40.16U	26.16	2.62		55.65	HI
294	16.0	2.48	41.52U	25.52	2.55		55.23	HI
295	13.0	2.52	40.43U	27.43	2.74		54.28	HI
296	13.0	1.24	41.86U	23.86	2.39		56.62	HI
297	13.0	-22.99	70.10U	57.10	5.71		4.83	HI
299	13.0	3.59	34.97U	21.97	2.20		63.38	HI
300	13.0	27.13	70.91U	57.01	5.70		4.98	HI
301	13.0	20.42	33.13U	20.13	2.01		66.45	HI
302	13.0	7.22	70.05U	57.05	5.71		4.92	HI
305	12.0	0.0	70.07U	58.07	5.81		4.81	HI
400	73.0	0.0	65.00U	-8.00	-0.80	LO	100.00	HI
404	60.0	0.0	65.00U	5.00	0.50		61.55	HI
405	56.5	2.78	64.32U	7.82	0.78		52.61	HI
406	56.5	4.19	63.16U	6.66	0.67		59.61	HI
407	56.5	6.58	62.71U	6.21	0.62		62.33	HI
408	40.5	19.83	61.03U	12.33	1.23		47.52	HI

CENTRAL DISTRIBUTION SYSTEM (1994 PEAK HOUR FACTOR = 1.75)

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD METRS	PRESSURE KG/SCM	CK	PCT DROP	CK
411	42.0	0.0	59.60U	17.66	1.77		42.02	HI
412	43.0	15.94	60.40U	17.40	1.74		43.00	HI
500	58.3	-878.07J	58.30	0.0	0.0	LO	100.00	HI
501	58.3	-787.25J	58.30	-0.00	-0.00	LO	100.00	HI
502	30.0	0.0	57.98U	27.98	2.90		34.94	HI
504	52.0	0.0	58.13U	6.13	0.61		70.81	HI
505	52.0	0.0	104.09U	52.09	5.21		-148.03	
506	50.0	0.0	57.88U	7.88	0.79		65.73	HI
507	50.0	0.0	57.87U	7.87	0.79		65.77	HI
508	50.0	0.0	57.84U	7.84	0.78		65.92	HI
509	80.0	4.32	98.01U	18.01	1.90		357.23	HI
510	80.0	4.32	100.66U	20.66	2.07		395.14	HI
511	70.0	4.32	94.86U	24.86	2.49		-728.80	
512	78.0	6.49	98.15U	20.16	2.02		503.18	HI
513	59.0	2.18	94.54U	35.54	3.55		-153.84	
514	58.0	-6.24	93.37U	-35.87	-3.59		-139.10	
516	58.0	0.0	94.70U	36.70	3.67		-144.65	
517	57.0	0.0	94.55U	37.55	3.76		-134.70	
518	54.0	8.46	82.52U	28.52	2.85		-50.09	
519	54.0	0.68	90.37U	36.37	3.64		-91.44	
520	54.0	2.56	76.46U	22.46	2.25		-18.22	
521	52.0	5.26	67.07U	15.07	1.51		28.25	HI
522	48.0	9.61	60.39U	12.39	1.24		50.43	HI
523	44.0	2.31	61.07U	17.07	1.71		41.15	HI
524	38.0	17.05	67.94U	29.94	2.99		14.45	HI
525	43.0	17.05	72.33U	29.33	2.93		2.22	HI
526	46.0	7.95	64.71U	18.71	1.87		30.71	HI
527	33.0	9.44	64.09U	31.09	3.11		22.27	HI
528	34.0	5.73	53.31U	19.31	1.93		50.48	HI
529	34.0	5.73	49.73U	15.73	1.57		59.66	HI
530	32.0	18.29	42.29U	10.29	1.03		74.90	HI
531	40.0	5.60	52.54U	12.54	1.25		62.01	HI
532	40.0	9.61	42.25U	2.25	0.23	LO	93.17	HI
533	46.0	10.51	60.60U	14.60	1.46		45.92	HI
534	50.0	0.0	67.34U	17.34	1.73		24.60	HI
535	52.0	4.10	69.32U	17.32	1.73		17.51	HI
536	52.0	0.0	56.27U	4.27	0.43		79.86	HI
537	47.0	4.10	78.23U	31.23	3.12		-20.13	
538	67.0	6.24	91.23U	24.23	2.42		-303.91	
539	36.0	8.29	66.21U	30.21	3.02		18.35	HI
541	56.0	11.45	50.58U	-5.42	-0.54	LO	131.89	HI
542	57.0	0.0	94.72U	37.72	3.77		-135.74	
543	43.0	2.31	63.44U	20.44	2.04		31.87	HI
544	48.0	2.31	60.39U	12.39	1.24		50.43	HI
545	56.0	9.02	51.04U	-4.96	-0.50	LO	129.19	HI
546	60.0	4.32	64.90U	4.90	0.49		62.34	HI
547	68.0	6.49	91.71U	23.71	2.37		-374.10	
548	46.0	4.10	70.23U	24.23	2.42		10.28	HI
549	41.0	5.26	61.65U	20.65	2.07		35.47	HI
551	32.0	9.61	47.60U	15.60	1.56		61.95	HI

CENTRAL DISTRIBUTION SYSTEM (1994 PEAK HOUR FACTOR = 1.75)

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SCM	CK	PCT DROP	CK
552	50.0	7.95	64.74U	14.74	1.47		35.91	HI
553	50.0	7.73	68.26U	18.26	1.83		20.59	HI
600	52.0	15.04	59.53U	7.53	0.75		64.16	HI
601	54.0	12.05	59.60U	5.60	0.56		70.51	HI
602	60.0	17.01	65.14U	5.14	0.51		60.49	HI
603	52.0	9.87	66.94U	14.94	1.49		28.86	HI
607	52.0	9.97	70.95U	18.95	1.90		9.75	HI
609	50.0	0.0	54.65U	4.65	0.47		79.77	HI
610	45.0	0.0	53.76U	8.76	0.88		68.73	HI
616	41.0	0.0	53.59U	12.59	1.26		60.66	HI
620	30.0	-255.01	70.92U	32.92	3.29		5.96	HI
621	42.0	-19.70	69.65U	27.65	2.76		10.81	HI
622	46.0	-31.53	68.40U	22.40	2.24		17.02	HI
623	47.0	-19.70	63.40U	16.40	1.64		36.93	HI
624	40.0	14.78	48.15U	8.15	0.82		75.30	HI
625	36.0	-5.73	45.89U	9.89	0.99		73.27	HI
626	30.0	-5.73	50.38U	20.38	2.04		52.60	HI
627	38.0	21.02	63.25U	25.25	2.52		27.87	HI
629	30.0	0.0	69.64U	31.64	3.16		9.60	HI
630	38.0	0.0	53.06U	15.06	1.51		56.97	HI
631	20.0	2.91	48.85U	28.85	2.89		45.56	HI
632	23.0	6.71	50.41U	27.41	2.74		45.19	HI
633	26.0	24.87	56.66U	30.66	3.07		34.77	HI
634	54.0	15.34	65.14U	11.14	1.11		41.30	HI
635	20.0	3.80	47.16U	27.16	2.72		48.76	HI
636	21.0	6.71	47.53U	26.53	2.65		48.98	HI
641	53.0	12.05	60.39U	7.39	0.74		63.05	HI
642	52.0	8.93	57.31U	5.81	0.58		72.33	HI
644	33.0	4.91	48.51U	15.51	1.55		61.22	HI
645	22.0	3.80	46.13U	24.13	2.41		52.68	HI
700	59.0	28.97	65.61U	6.61	0.66		52.82	HI
701	32.0	10.17	56.49U	24.49	2.45		40.26	HI
702	38.0	6.28	56.17U	18.17	1.82		48.10	HI
703	46.0	0.0	56.72U	10.72	1.07		60.31	HI
704	40.0	32.90	64.88U	24.88	2.49		24.60	HI
705	17.0	6.62	41.95U	24.95	2.50		55.44	HI
708	18.0	3.93	40.36U	22.36	2.24		59.34	HI
711	11.0	5.55	40.25U	29.26	2.93		52.81	HI
712	49.0	6.84	63.13U	14.13	1.41		41.12	HI
713	12.0	4.44	39.27U	27.27	2.73		55.30	HI
714	48.0	8.50	62.88U	14.88	1.49		40.47	HI
716	48.0	7.05	62.84U	14.84	1.48		40.64	HI
717	51.0	3.20	62.86U	11.86	1.19		46.09	HI
718	50.0	0.0	62.86U	12.86	1.29		44.09	HI
719	20.0	2.18	48.43U	18.43	1.84		57.13	HI
720	50.0	0.0	62.71U	12.71	1.27		44.75	HI
721	15.0	2.18	48.79U	33.79	3.38		41.75	HI
722	51.0	4.10	62.63U	11.63	1.16		47.14	HI
724	50.0	11.07	62.49U	12.49	1.25		45.70	HI
725	14.0	3.33	38.70U	24.70	2.47		58.14	HI

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD METRS	PRESSURE KG/SCM	CK	PCT DROP	CK
726	16.0	6.62	40.34U	24.34	2.43		57.29	HI
727	26.0	16.54	59.09U	22.09	2.31		37.59	HI
728	22.0	13.25	56.30U	34.30	3.43		32.75	HI
729	15.0	0.0	49.20U	34.20	3.42		41.03	HI
730	28.0	9.91	61.57U	23.57	2.36		32.47	HI
732	30.0	2.19	61.63U	31.63	3.16		26.45	HI
734	20.0	9.91	61.44U	41.44	4.14		21.80	HI
736	20.0	0.0	43.58U	23.58	2.36		55.51	HI
738	20.0	7.48	41.99U	21.99	2.20		58.51	HI
740	50.0	3.90	64.97U	14.97	1.50		34.92	HI
741	50.0	7.91	65.79U	15.79	1.58		31.34	HI
742	20.0	4.36	38.48U	18.48	1.85		65.13	HI
745	40.0	-146.99	66.02U	25.02	2.60		21.14	HI
746	32.0	15.47	58.58U	26.58	2.66		35.17	HI
747	42.0	20.55	64.83U	22.83	2.28		26.34	HI
748	50.0	2.56	63.72U	13.72	1.37		40.36	HI
800	28.0	11.75	51.03U	23.03	2.30		48.82	HI
802	36.0	10.55	49.72U	13.72	1.37		62.91	HI
804	19.0	10.34	48.82U	29.82	2.98		44.78	HI
805	22.0	6.24	48.00U	16.00	1.60		60.97	HI
806	36.0	9.72	46.40U	10.40	1.04		71.89	HI
807	10.0	20.34	27.06U	9.06	0.91		83.53	HI
808	10.0	28.84	31.73U	-49.73	-4.97	LO	190.42	HI
809	22.0	12.18	32.90U	10.90	1.09		78.62	HI
810	24.0	11.75	44.89U	20.89	2.09		57.36	HI
811	32.0	6.24	38.49U	6.49	0.65		84.18	HI
812	30.0	6.24	51.13U	21.13	2.11		50.86	HI
813	32.0	10.21	49.86U	17.86	1.79		56.44	HI
814	40.0	5.00	57.13U	17.13	1.71		48.08	HI
815	40.0	2.48	58.26U	18.26	1.83		44.67	HI
816	40.0	-182.01	47.82U	7.82	0.78		76.30	HI
818	16.0	0.0	48.18U	32.18	3.22		43.54	HI
820	14.0	4.06	47.52U	33.52	3.35		43.18	HI
822	24.0	12.43	44.18U	20.18	2.02		58.82	HI
824	22.0	6.20	43.64U	21.64	2.16		57.57	HI
826	28.0	3.67	41.37U	13.37	1.34		70.29	HI
828	20.0	8.33	43.27U	23.27	2.33		56.09	HI
830	20.0	14.06	42.90U	22.90	2.29		56.80	HI
832	15.0	3.59	40.56U	25.56	2.56		55.92	HI
834	18.0	4.79	39.78U	21.78	2.18		60.47	HI
836	20.0	13.72	39.76U	9.76	0.98		77.30	HI
838	22.0	10.13	39.37U	7.37	0.74		82.02	HI
840	40.0	8.67	39.34U	-0.66	-0.07	LO	102.00	HI
842	40.0	1.24	39.35U	-0.65	-0.07	LO	101.98	HI
844	30.0	3.59	38.97U	-8.97	-0.90		79.15	HI
900	24.0	27.99	54.75U	30.76	3.08		37.22	HI
901	22.0	19.40	50.04U	28.84	2.88		43.44	HI
902	26.0	11.84	48.85U	22.35	2.29		51.37	HI
904	12.0	6.67	49.38U	30.38	3.04		42.74	HI
906	18.0	16.62	55.14U	37.14	3.71		32.47	HI

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COASTAL DISTRIBUTION SYSTEM (1994 PEAK HOUR FACTOR = 1.75)

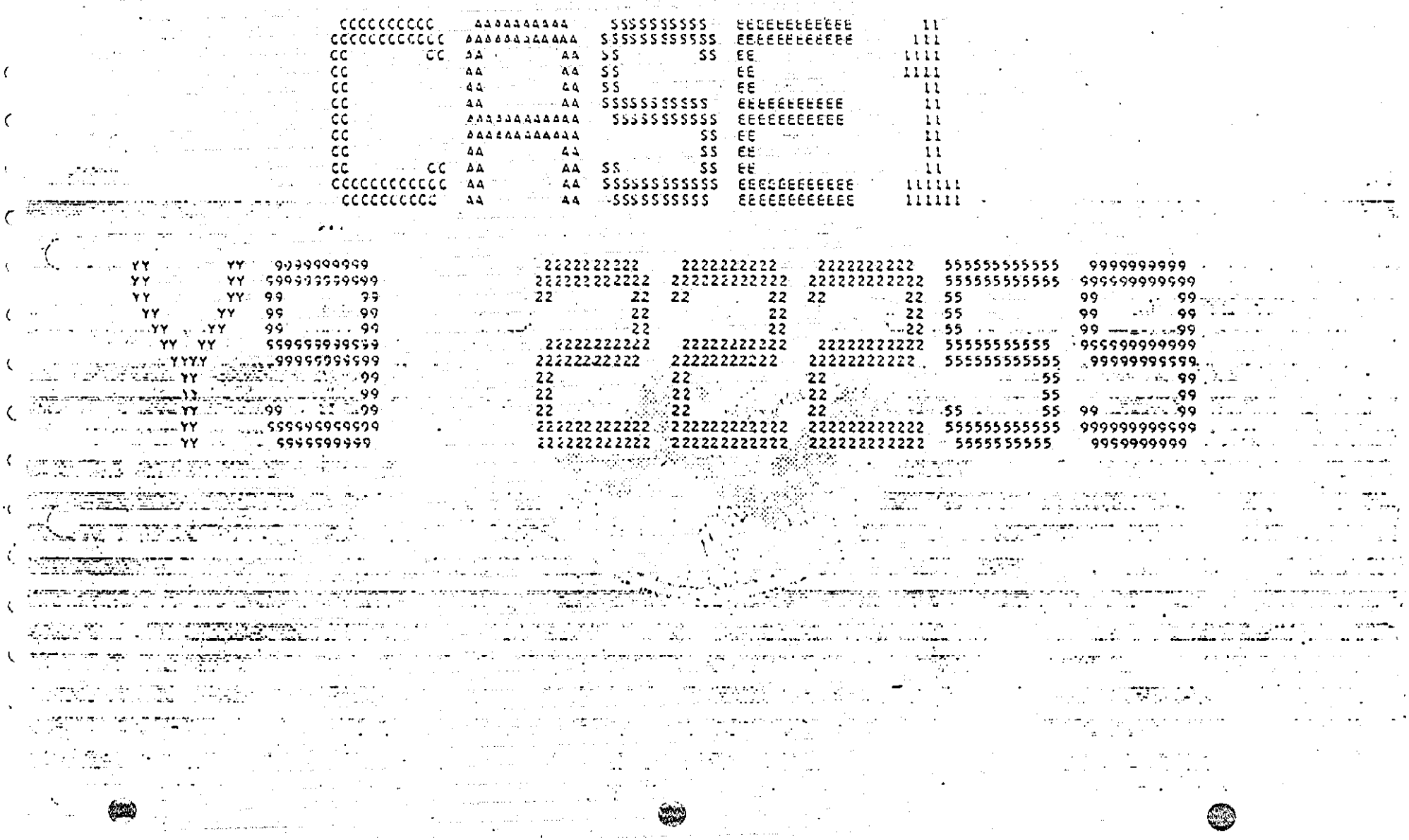
03/23/95

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SQ CM	OK	PCT DROP	OK
907	22.0	16.42	55.34U	33.34	3.35		34.24	HI
909	19.0	8.72	54.90U	35.90	3.59		33.51	HI
909	20.0	3.93	53.80U	33.80	3.38		36.23	HI
910	19.0	27.95	54.38U	35.38	3.54		34.48	HI
912	20.0	3.93	54.11U	34.11	3.41		35.65	HI
914	20.0	16.42	53.39U	33.39	3.34		37.01	HI
916	20.0	41.23	42.13U	22.18	2.22		58.15	HI
1002	22.0	7.91	52.01U	30.01	3.00		41.16	HI
1004	13.0	16.07	47.13U	36.13	3.61		39.79	HI
1006	14.0	9.33	50.36U	36.36	3.64		38.37	HI
1009	14.0	8.38	50.41U	36.41	3.64		38.29	HI
1016	14.0	8.35	49.93U	35.93	3.59		39.11	HI
1021	15.0	14.78	49.34U	34.34	3.43		40.79	HI
1022	15.0	8.38	49.02U	34.02	3.40		41.35	HI
1023	15.0	13.80	48.46U	33.46	3.35		42.31	HI
1024	14.0	5.28	47.87U	33.87	3.39		42.59	HI
1026	14.0	8.93	47.44U	33.44	3.34		43.32	HI
1029	12.0	8.47	45.21U	33.21	3.32		45.57	HI
1216	13.0	0.0	41.85U	28.85	2.88		51.92	HI
2043	13.0	0.0	40.99U	27.99	2.80		53.35	HI
2004	17.0	15.51	42.13U	24.50	2.45		55.78	HI
2005	12.6	4.87	41.87U	29.27	2.93		51.54	HI
2026	34.1	3.09	48.53U	14.43	1.44		62.91	HI
2087	24.1	0.0	48.53U	24.43	2.44		50.05	HI
4745	40.0	0.0	49.93U	9.93	0.99		69.92	HI
4746	14.0	0.0	49.93U	35.93	3.59		39.11	HI
5264	13.0	0.0	37.35U	24.35	2.43		59.42	HI
5502	45.0	0.0	57.80U	12.80	1.28		54.29	HI
5619	41.0	0.0	53.56U	12.56	1.26		60.66	HI
5619	43.0	0.0	53.48U	13.48	1.35		59.15	HI
5711	14.0	0.0	40.65U	26.65	2.65		55.01	HI
5800	28.0	0.0	51.34U	23.34	2.33		48.13	HI
5804	18.0	0.0	44.50U	26.50	2.65		51.82	HI
6000	12.0	0.0	47.67U	35.67	3.57		41.53	HI
6015	22.0	0.0	48.49U	26.49	2.65		35.39	HI
6030	15.0	0.0	49.40U	34.40	3.44		40.69	HI
6040	26.0	23.12	53.46U	27.46	2.75		41.58	HI
6085	65.0	-1888.27U	65.00	-0.00	-0.00	LO	100.00	HI
6090	60.5	0.0	65.00U	4.50	0.45		64.01	HI
6110	18.0	0.0	47.34U	29.34	2.93		46.66	HI
6115	16.0	0.0	48.18U	32.18	3.22		43.54	HI
6120	12.0	0.0	48.47U	36.47	3.65		40.21	HI
6122	20.0	0.0	50.19U	30.19	3.02		43.03	HI
6150	11.0	2.05	37.08U	26.08	2.61		57.93	HI
6182	24.0	19.33	42.33U	18.33	1.83		62.59	HI
8000	12.0	0.0	42.01U	30.01	3.00		50.81	HI
8001	12.0	0.0	42.21U	30.21	3.08		49.49	HI
8006	13.0	0.0	48.43U	35.43	3.54		40.95	HI
8007	48.0	0.0	65.32U	17.32	1.73		30.72	HI
8008	49.0	0.0	64.96U	15.96	1.60		33.51	HI

54 CENTRAL DISTRIBUTION SYSTEM (1994 PEAK HOUR FACTOR = 1.75)

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SCM	CK	PCT DROP	CK
8509	40.0	0.0	48.430	8.43	0.84		74.44	NI

55 END OF SIMULATION INPUT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CC CC AA AA SS SS EE 11
CCCCCCCCCCCC AA AA SSSSSSSSSS EEEEEEEEEEE 111111
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DATE 07/04/99,CLOCK 11/15/59,DURATION 00/03/14

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WATER DISTRIBUTION NETWORK SIMULATION
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 MAXPR 7.0, MINPR 0.4, MAXPC 0.60, STATMOL  73.0
DFULT 1.00,MAXIT 50, MAXERR 0.001, NEPNODE 500
PRDATA, PRCEN, PRINT
DATE 07/04/95
TITLE  BLOCKS 2,3,4,5&6 (2015 PEAK HOUR - CASE 1)
 HORIZON AVEDAY15
CARDS 5
RUN 5
END
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CARD  1
CARD  2
CARD  3
CARD  4
CARD  5
CARD  6
CARD  7
CARD  8
CARD  9
CARD 10
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SUBAREA DATA

ID	PIPE, VALVE, AND PUMP NUMBERS

PIPE AND VALVE DATA

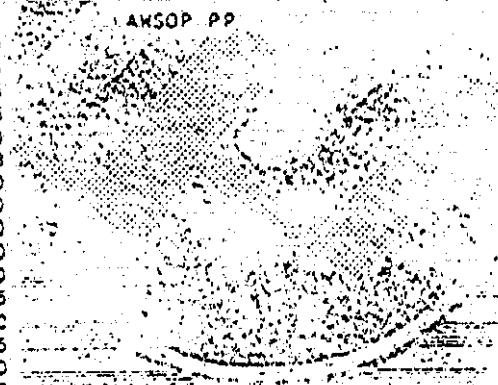
	NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.	
1	200	201	200	450.00	500	105	
2	201	202	201	400.00	500	105	
3	202	202	203	850.00	300	105	
4	203	204	203	400.00	300	60	
5	204	206	202	1100.00	500	105	
6	206	208	206	280.00	500	110	
7	208	210	208	500.00	900	110	
8	209	211	210	350.00	900	110	
9	210	208	214	326.00	500	105	
10	212	214	226	340.00	500	105	
11	213	211	212	250.00	900	110	
12	214	226	228	730.00	300	65	
13	216	228	230	520.00	300	65	
14	217	218	216	972.00	900	110	
15	218	218	220	263.00	900	105	
16	220	217	218	500.00	300	120	
17	5220	217	218	500.00	400	130	AWSOP PP
18	222	224	217	1040.00	300	105	
19	224	224	222	1590.00	400	60	
20	226	222	220	500.00	400	110	
21	228	223	220	1600.00	1350	105	
22	230	220	238	700.00	1050	105	
23	232	228	234	680.00	400	60	
24	234	234	232	800.00	300	125	
25	236	234	236	500.00	500	65	
26	237	236	238	500.00	500	60	
27	238	234	251	750.00	400	60	
28	239	238	251	1450.00	500	60	
29	240	253	252	700.00	600	120	
30	5240	253	252	700.00	750	135	AWSOP PP
31	241	244	246	537.00	600	120	
32	5241	244	246	537.00	750	135	AWSOP PP
33	242	238	240	250.00	750	110	
34	243	238	243	300.00	1200	105	
35	244	240	242	1450.00	750	110	
36	245	244	253	700.00	600	120	
37	5245	244	253	700.00	750	135	AWSOP PP
38	246	242	250	900.00	400	75	
39	248	250	248	750.00	400	75	
40	250	246	248	1396.00	600	105	
41	252	246	254	750.00	600	50	
42	253	808	271	950.00	300	65	
43	254	252	258	1075.00	600	120	
44	5254	252	258	1075.00	600	130	AWSOP PP
45	255	251	255	1000.00	400	65	
46	256	254	257	750.00	600	50	
47	257	268	273	1050.00	300	65	
48	4118	268	273	1050.00	300	130	AWSOP PP
49	258	248	262	850.00	400	65	
50	802	800	802	300.00	600	105	

PIPE AND VALVE DATA

	NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.	
51	804	800	804	700.00	500	110	
52	806	802	804	400.00	600	105	
53	807	804	805	650.00	715	128	
54	808	805	806	400.00	718	128	
55	811	806	809	563.00	300	65	
56	5811	806	809	663.00	600	130	AWSOP PP
57	812	809	808	300.00	300	65	
58	5812	809	809	300.00	600	130	AWSOP PP
59	814	806	810	850.00	715	128	
60	816	810	268	800.00	300	65	
61	4119	810	268	800.00	300	120	AWSOP PP
62	818	810	822	300.00	1313	108	
63	822	822	824	150.00	1104	128	
64	1208	216	230	590.00	2200	130	
65	1210	230	236	750.00	2200	130	
66	1212	236	256	1600.00	2200	130	
67	1216	1216	216	10.00	900	115	
68	1218	256	260	1100.00	2200	130	
69	1220	260	262	500.00	600	120	
70	1221	262	263	400.00	400	120	
71	1250	249	8516	700.00	600	120	
72	1252	247	249	2200.00	600	120	
73	1254	736	247	1000.00	750	125	
74	1260	226	232	400.00	1032	120	
75	1801	268	807	430.00	400	120	
76	1803	807	809	520.00	500	120	
77	1805	809	811	350.00	600	120	
78	1809	805	811	520.00	600	120	
79	1811	800	813	500.00	750	130	
80	8811	800	813	500.00	750	125	AWSOP PP
81	1813	813	805	1150.00	750	120	
82	5813	813	805	1150.00	750	135	AWSOP PP
83	1814	812	805	700.00	1200	125	REROUTED (GUINGUA ST)
84	1816	814	812	1285.00	1200	125	
85	1818	815	814	233.00	1200	125	
86	1821	736	738	324.00	900	125	
87	1822	820	736	1187.00	1050	125	
88	1824	6115	820	1074.00	1500	125	
89	2002	203	8001	330.00	300	125	
90	2000	230	8000	800.00	300	125	
91	2001	8000	220	250.00	400	125	
92	2003	200	8001	900.00	2200	135	
93	2043	2043	244	176.00	1171	132	
94	4122	2043	244	176.00	900	120	AWSOP PP
95	4238	238	8246	689.00	600	125	
96	4246	256	238	250.00	2200	135	
97	4800	5800	800	29.00	750	125	
98	8800	5800	800	29.00	900	135	AWSOP PP
99	7010	805	810	1280.00	1200	125	
100	9060	8001	6182	1250.00	2200	130	

PIPE AND VALVE DATA

	NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.
101	9061	6182	216	1500.00	2200	135
102	5	539	176	800.00	400	65
103	6	113	154	800.00	400	60
104	7	114	153	1200.00	400	105
105	8	116	152	1100.00	400	105
106	10	166	15	1550.00	666	55
107	11	18	165	475.00	300	60
108	12	20	164	1000.00	600	105
109	13	20	167	550.00	2860	128
110	15	32	169	650.00	564	115
111	16	193	192	780.00	300	65
112	17	35	193	470.00	400	65
113	18	137	171	350.00	300	100
114	19	136	170	750.00	300	120
115	20	70	41	300.00	400	105
116	21	66	173	480.00	300	115
117	22	65	172	1050.00	400	100
118	23	65	190	400.00	400	100
119	24	181	76	1080.00	400	105
120	25	47	174	620.00	300	65
121	26	53	175	390.00	500	75
122	27	178	53	628.00	500	85
123	29	56	182	400.00	300	65
124	5029	56	182	400.00	400	130
125	30	64	184	400.00	1200	110
126	31	183	62	500.00	750	65
127	32	106	186	1050.00	1350	105
128	33	632	185	750.00	1500	105
129	34	112	632	250.00	1500	110
130	35	115	191	600.00	766	128
131	36	156	109	500.00	900	110
132	37	108	156	450.00	900	110
133	38	155	6110	770.00	600	110
134	39	106	155	760.00	600	110
135	43	54	3	725.00	728	120
136	46	19	6	800.00	400	105
137	47	106	105	600.00	1050	70
138	48	59	25	240.00	1050	85
139	49	84	83	323.00	500	60
140	50	100	98	800.00	900	70
141	52	43	132	350.00	300	90
142	53	32	18	450.00	584	105
143	54	126	17	1400.00	750	65
144	58	123	124	112.00	750	80
145	59	123	18	120.00	750	80
146	62	40	122	130.00	750	80
147	67	82	80	133.00	900	105
148	68	35	45	600.00	500	105
149	72	58	119	50.00	1200	85
150	75	58	113	200.00	750	85



PIPE AND VALVE DATA

NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.	
151	76	60	57	600.00	1050	85	ALGECIRAS P.S.
152	79	51	193	700.00	400	60
153	80	100	99	300.00	650	60
154	82	107	104	1700.00	1202	70
155	84	94	95	370.00	400	60
156	86	107	106	1100.00	1532	75
157	87	105	104	350.00	1050	110
158	88	109	157	350.00	900	110
159	89	107	108	1400.00	900	110
160	4123	107	108	1400.00	600	130	AWSOP PP
161	90	54	55	600.00	750	70
162	91	51	179	1479.00	200	65
163	92	114	113	1300.00	350	75
164	93	191	114	800.00	766	128
165	94	116	115	510.00	772	130
166	95	631	61	631.00	1200	85
167	96	610	631	3000.00	1200	85
168	97	185	105	1150.00	1500	105
169	100	89	90	320.00	300	60
170	101	51	3	755.00	728	120
171	102	82	83	589.00	500	105
172	103	101	100	600.00	1528	85
173	104	22	36	611.00	1050	85
174	105	37	38	217.00	1050	85
175	106	38	39	185.00	1050	85
176	107	36	37	697.00	1050	85
177	108	74	70	680.00	400	105
178	109	73	71	540.00	400	60
179	110	104	101	650.00	1528	75
180	111	43	33	880.00	300	60
181	112	43	171	430.00	300	85
182	113	33	170	500.00	300	105
183	114	39	40	240.00	1050	85
184	115	174	67	550.00	300	65
185	116	15	14	1200.00	500	60
186	117	5804	166	200.00	666	85
187	118	6000	27	1230.00	1050	85
188	119	47	48	580.00	300	105
189	120	164	15	800.00	600	105
190	121	66	69	360.00	400	105
191	122	22	18	1271.00	1050	85
192	123	59	58	2000.00	1200	85
193	124	61	59	1000.00	1200	85
194	125	63	64	760.00	1218	125
195	126	194	105	800.00	1200	110
196	127	115	62	672.00	750	65
197	128	55	178	1000.00	600	85
198	130	67	68	200.00	300	60
199	131	81	80	325.00	600	105
200	132	101	224	910.00	500	60

/0 BLOCKS 2,3,4,5&6 (2015 PEAK HOUR - CASE 1) 07/04/95

PIPE AND VALVE DATA

NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.
201	135	165	19	462.00	300	60
202	136	169	35	670.00	564	120
203	137	35	136	680.00	300	105
204	138	22	167	600.00	2860	120
205	139	83	73	273.00	500	65
206	140	69	70	300.00	400	105
207	141	71	68	250.00	300	60
208	142	77	76	150.00	400	105
209	143	186	223	1000.00	1350	105
210	144	50	45	470.00	500	105
211	145	49	50	460.00	500	105
212	146	51	50	516.00	750	105
213	147	50	52	700.00	500	105
214	148	48	49	400.00	500	105
215	149	47	48	630.00	500	105
216	150	47	46	660.00	500	105
217	151	42	46	380.00	692	100
218	152	33	42	729.00	600	105
219	153	48	52	300.00	300	100
220	154	52	53	354.00	500	60
221	155	53	72	767.00	500	60
222	156	67	175	1000.00	500	60
223	157	66	173	1300.00	626	125
224	158	66	65	713.00	500	100
225	159	59	63	604.00	1200	105
226	160	81	72	149.00	750	105
227	161	72	73	146.00	712	80
228	162	73	74	180.00	400	105
229	163	74	77	570.00	300	60
230	164	66	67	300.00	500	100
231	165	90	83	422.00	500	105
232	166	90	93	601.00	500	105
233	167	111	98	1200.00	900	70
234	168	97	95	405.00	650	60
235	169	99	97	500.00	300	60
236	170	70	76	900.00	300	60
237	171	94	182	700.00	300	65
238	172	56	179	550.00	300	65
239	173	63	62	780.00	300	90
240	174	57	54	654.00	1078	125
241	175	17	16	745.00	750	90
242	176	45	137	670.00	300	100
243	177	183	101	650.00	750	65
244	178	79	78	398.00	500	105
245	179	80	79	126.00	500	105
246	180	181	75	750.00	400	105
247	181	180	75	550.00	400	95
248	182	78	77	150.00	400	105
249	183	89	85	222.00	750	65
250	184	80	84	374.00	750	65

II-95

PIPE AND VALVE DATA

	NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.
251	185	84	85	178.00	750	65
252	186	87	86	330.00	450	60
253	187	83	87	159.00	400	105
254	189	92	89	184.00	750	65
255	190	90	91	212.00	300	60
256	191	91	88	279.00	550	60
257	192	94	92	719.00	750	60
258	193	93	91	532.00	550	60
259	194	100	94	1069.00	900	75
260	195	95	93	322.00	900	65
261	196	95	96	490.00	400	60
262	197	98	97	261.00	600	60
263	198	78	86	180.00	400	95
264	199	88	87	230.00	450	60
265	247	157	242	1300.00	900	115
266	501	500	502	357.00	1800	110
267	502	503	504	118.00	2100	120
268	504	504	502	222.00	2100	120
269	505	502	506	120.00	2100	120
270	506	501	506	120.00	1525	105
271	4117	501	506	120.00	1625	105
272	507	506	507	10.00	2100	115
273	508	506	508	30.00	1986	105
274	509	505	510	1015.00	1200	110
275	510	510	509	150.00	300	80
276	511	509	511	1620.00	300	80
277	512	509	511	1200.00	300	65
278	513	510	512	979.00	1200	110
279	514	511	513	1000.00	200	85
280	515	512	542	1600.00	1200	110
281	516	547	538	650.00	300	105
282	517	514	538	1100.00	300	105
283	518	513	516	500.00	300	80
284	519	542	514	170.00	500	105
285	520	517	516	150.00	300	85
286	521	517	518	460.00	300	85
287	522	517	519	1033.00	900	110
288	523	519	518	280.00	300	65
289	524	517	520	700.00	300	115
290	525	520	521	500.00	300	115
291	526	549	522	650.00	300	50
292	527	523	544	1275.00	300	105
293	528	543	523	1275.00	300	105
294	529	525	524	555.00	627	125
295	530	519	525	1255.00	627	125
296	5530	519	525	1255.00	600	130
297	540	526	552	450.00	300	75
298	541	542	517	110.00	1200	110
299	542	524	539	518.00	627	125
300	544	539	527	966.00	627	125

AKSOP PP

PIPE AND VALVE DATA

NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.	
301	545	527	528	512.00	400	85	
302	546	528	529	290.00	400	85	
303	547	529	530	410.00	400	85	
304	548	529	531	800.00	400	95	
305	549	532	530	800.00	400	65	
306	550	522	531	964.00	400	95	
307	551	551	532	750.00	400	60	
308	552	535	533	800.00	400	65	
309	5552	535	533	800.00	300	130	AWSOP PP
310	553	534	533	540.00	521	95	
311	554	535	534	257.00	600	85	
312	558	503	536	2290.00	2148	120	
313	559	535	545	1180.00	300	105	
314	5559	535	545	1180.00	300	130	AWSOP PP
315	560	535	548	750.00	400	85	
316	561	514	537	900.00	300	115	
317	562	546	541	1100.00	300	95	
318	563	533	522	282.00	780	85	
319	571	516	542	10.00	300	85	
320	572	524	543	700.00	300	105	
321	573	522	544	700.00	300	105	
322	574	541	545	600.00	300	105	
323	575	510	546	2100.00	300	85	
324	576	512	547	800.00	300	115	
325	577	537	548	650.00	300	95	
326	578	521	549	600.00	300	105	
327	579	533	551	550.00	400	65	
328	580	525	526	700.00	300	85	
329	600	600	601	1000.00	300	130	
330	602	602	641	680.00	400	115	
331	603	602	634	900.00	600	120	
332	604	607	603	500.00	600	120	
333	4061	607	603	500.00	900	135	AWSOP PP
334	610	609	610	1080.00	1525	115	
335	611	609	616	2030.00	1525	115	
336	616	610	616	950.00	1525	115	
337	617	616	5619	144.00	2640	100	
338	620	620	621	1337.00	1200	110	
339	4120	620	621	1337.00	1200	135	AWSOP PP
340	621	621	622	730.00	1200	110	
341	622	622	602	890.00	600	110	
342	4062	622	602	890.00	1750	130	AWSOP PP
343	623	621	623	800.00	500	100	
344	5623	621	623	800.00	900	135	AWSOP PP
345	624	623	624	750.00	300	105	
346	625	625	644	850.00	300	105	
347	626	626	645	700.00	300	75	
348	627	627	626	1100.00	300	115	
349	628	621	627	450.00	400	115	
350	5628	621	627	450.00	600	130	AWSOP PP

PIPE AND VALVE DATA

	NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.	
351	629	5619	630	140.00	1350	90	
352	630	5619	630	224.00	1850	100	
353	631	630	107	2290.00	1676	100	
354	4124	630	107	2290.00	1200	115	AWSOP PP
355	632	536	609	1286.00	1986	115	
356	633	507	616	5670.00	2100	120	
357	634	603	600	770.00	300	105	
358	635	623	603	1300.00	300	105	
359	4064	623	603	1300.00	900	135	AWSOP PP
360	636	630	112	1250.00	1500	110	
361	637	634	603	600.00	600	120	
362	640	535	600	1400.00	300	80	
363	641	627	633	950.00	464	125	
364	642	642	601	800.00	300	105	
365	643	641	642	750.00	300	105	
366	644	607	535	550.00	900	85	
367	4144	607	535	550.00	600	120	AWSOP PP
368	645	624	644	700.00	300	105	
369	646	645	625	700.00	200	75	
370	700	708	726	800.00	300	105	
371	701	700	703	1100.00	250	100	
372	703	726	742	1100.00	300	105	
373	704	728	730	750.00	300	90	
374	705	705	708	900.00	300	130	
375	706	712	720	259.00	500	90	
376	707	742	725	1300.00	300	105	
377	708	720	730	929.00	500	105	
378	709	722	712	256.00	626	125	
379	711	109	713	1700.00	250	70	
380	712	722	724	450.00	600	100	
381	713	711	713	250.00	400	70	
382	714	724	730	1000.00	600	105	
383	715	714	712	400.00	600	105	
384	716	714	716	600.00	600	105	
385	717	716	717	250.00	500	105	
386	718	717	718	800.00	500	105	
387	719	719	721	900.00	500	105	
388	721	729	721	200.00	400	105	
389	722	741	748	750.00	400	125	
390	723	729	1021	200.00	500	105	
391	724	717	732	1000.00	300	80	
392	726	730	734	500.00	648	115	
393	732	704	747	1000.00	912	100	
394	734	704	700	1000.00	912	100	
395	735	747	712	500.00	750	115	
396	737	700	622	1200.00	913	100	
397	742	704	8008	400.00	500	90	
398	743	740	741	500.00	400	80	
399	744	108	705	600.00	469	115	
400	900	502	906	2730.00	816	125	

PIPE AND VALVE DATA

	NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.	
401	901	906	908	600.00	816	125	
402	904	908	912	750.00	600	110	
403	906	912	914	1100.00	600	110	
404	1000	914	1002	1627.00	2000	125	
405	1002	1002	1008	1960.00	2000	125	
406	1005	1004	916	1750.00	600	130	
407	1006	1006	1004	500.00	750	130	
408	1008	1008	1006	110.00	2200	130	
409	1016	1006	1016	1325.00	2200	130	
410	1018	6030	1016	1345.00	2100	130	
411	1103	412	187	874.00	1200	125	
412	1105	11	8	1200.00	500	120	
413	1107	158	7	958.00	3000	125	
414	1108	135	6	1601.00	1500	125	
415	1109	7	135	500.00	1500	125	
416	1110	138	10	622.00	450	120	
417	1111	12	160	750.00	900	125	
418	1112	13	12	750.00	900	125	
419	1113	159	13	1540.00	1050	125	
420	1114	188	117	592.00	1200	125	
421	1115	161	14	760.00	600	120	
422	1116	21	189	1000.00	600	125	
423	1117	190	28	700.00	600	125	
424	1120	7	20	700.00	2800	135	
425	1121	187	188	414.00	1200	125	
426	1122	21	116	950.00	600	120	
427	5031	21	116	950.00	750	120	AWSOP PP
428	1125	29	113	1307.00	500	120	
429	1127	27	29	824.00	600	120	
430	1128	189	190	750.00	600	125	
431	1129	28	29	2060.00	500	120	
432	1130	162	14	1150.00	450	120	
433	1131	31	168	576.00	2200	130	
434	4121	31	168	576.00	1200	135	AWSOP PP
435	1132	32	31	950.00	2600	130	
436	1133	6120	6122	2045.00	750	125	
437	1134	163	33	800.00	600	125	
438	1136	11	10	800.00	750	125	
439	1144	2	6150	800.00	300	120	
440	1145	6000	2	700.00	300	125	
441	1146	182	62	800.00	500	120	
442	1148	137	132	550.00	2200	130	
443	1150	136	137	700.00	2200	130	
444	4126	136	137	700.00	1200	135	AWSOP PP
445	1153	128	32	950.00	2600	130	
446	1154	22	128	248.00	2600	130	
447	1160	168	136	550.00	2200	130	
448	4127	160	136	550.00	1200	135	AWSOP PP
449	1161	8006	30	600.00	600	120	
450	1162	30	162	850.00	450	120	

PIPE AND VALVE DATA

	NUMBER	NODE	NODE	LENGTH	DIAM	F-n COEF.	
451	1163	10	161	850.00	600	120	
452	1164	160	11	700.00	750	125	
453	1165	6	159	818.00	1050	125	
454	1166	411	158	1916.00	3000	135	
455	1195	117	116	1250.00	1050	125	
456	1566	518	553	650.00	300	125	
457	5566	518	553	650.00	300	130	AWSOP PP
458	1567	553	552	500.00	300	120	
459	1628	620	628	400.00	600	120	
460	1637	632	636	450.00	200	120	
461	1638	631	635	300.00	200	120	
462	1639	627	628	300.00	400	125	
463	1641	634	601	950.00	400	125	
464	1642	620	644	1800.00	300	120	
465	1643	635	636	1800.00	300	120	
466	1701	702	701	1050.00	300	125	
467	1702	702	703	250.00	300	125	
468	1712	747	727	1000.00	600	125	
469	1725	713	725	1130.00	400	120	
470	1727	727	746	180.00	600	120	
471	1730	701	6015	1000.00	400	125	
472	1732	746	728	1994.00	400	125	
473	1734	633	701	1130.00	400	125	
474	1900	5502	907	2700.00	2200	130	
475	1902	906	904	1250.00	300	120	
476	1903	909	914	460.00	2000	125	
477	1904	910	909	666.00	2000	125	
478	1906	907	910	2000.00	2200	130	
479	2015	66	173	620.00	600	115	
480	2016	719	818	460.00	1800	130	
481	2017	8007	8008	820.00	300	115	
482	2018	8007	741	420.00	250	115	
483	2019	8008	740	350.00	500	115	
484	2023	506	906	2730.00	400	115	
485	4109	109	5711	1100.00	750	125	
486	4400	400	6090	2000.00	3000	130	
487	4401	404	6085	1500.00	3000	130	
488	4411	412	411	555.00	3000	135	
489	4412	6085	412	2738.00	3000	135	
490	4505	502	5502	407.00	1800	120	
491	4618	616	5618	124.00	1500	50	
492	4711	5711	711	550.00	600	125	
493	4719	718	8505	700.00	500	122	
494	4726	5711	726	700.00	600	125	
495	7000	4746	4745	1400.00	1050	125	
496	7720	1016	4746	400.00	1050	125	
497	4040	4746	4745	1400.00	1350	135	AWSOP PP
498	7001	741	747	900.00	1200	125	
499	7002	745	741	150.00	1200	125	
500	7004	748	717	500.00	400	125	

PIPE AND VALVE DATA

	NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.	
501	7005	31	6122	330.00	1050	125	
502	7008	5804	16	200.00	666	95	
503	7015	6015	746	330.00	600	125	
504	7040	6030	1021	276.00	1350	125	
505	7045	6030	719	1700.00	1800	125	
506	7060	132	47	4430.00	2200	130	
507	8000	-40	6000	630.00	1050	85	
508	9000	-47	66	1300.00	2200	130	
509	9010	-66	-65	700.00	2200	130	
510	9015	65	181	1300.00	2200	130	
511	9020	-181	-200	850.00	2200	130	
512	9036	6120	30	50.00	750	125	
513	1350	254	260	925.00	300	130	DP
514	1351	13	5804	1720.00	600	130	DP
515	1352	17	6122	700.00	750	120	DP
516	4502	5502	506	98.00	1800	135	
517	256	278	277	750.00	300	85	
518	260	258	270	1075.00	600	120	
519	5260	258	270	1075.00	600	130	AWSOP PP
520	261	255	259	750.00	400	60	
521	262	5264	274	150.00	600	90	
522	263	259	274	750.00	400	105	
523	264	262	269	1500.00	400	75	
524	4262	264	5264	750.00	600	125	
525	265	274	272	287.00	500	90	
526	266	270	282	700.00	600	120	
527	5266	270	282	700.00	600	130	AWSOP PP
528	267	257	264	800.00	600	60	
529	268	272	284	560.00	500	105	
530	269	270	272	400.00	600	105	
531	270	269	293	900.00	400	75	
532	272	282	280	370.00	500	105	
533	273	280	283	130.00	400	115	
534	274	284	282	332.00	500	105	
535	275	283	285	850.00	400	105	
536	276	286	284	250.00	400	105	
537	278	288	286	250.00	1532	125	
538	279	288	299	1100.00	400	75	
539	280	289	288	600.00	1773	108	
540	281	290	289	250.00	1773	108	
541	282	291	290	1450.00	1773	108	
542	283	292	291	300.00	1773	108	
543	284	292	294	350.00	1144	108	
544	4032	292	294	350.00	1200	135	AWSOP PP
545	285	281	301	600.00	300	65	
546	5285	281	301	600.00	600	130	AWSOP PP/MPLAN BLK 5 ✓
547	288	830	296	600.00	1095	126	
548	300	297	300	1100.00	1095	128	
549	7826	297	300	1100.00	1200	135	MPLAN PIPE BLK 5 ✓
550	301	285	301	450.00	250	75	

PIPE AND VALVE DATA

	NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.		
551	302	300	302	1000.00	535	125		
552	7827	300	302	1000.00	1200	135	MPLAN PIPE	BLK 5
553	303	299	301	900.00	400	75		
554	824	824	278	550.00	300	85		
555	5824	824	278	550.00	600	130	AWSOP PP	
556	826	824	826	1600.00	200	125		
557	828	824	828	160.00	1112	125		
558	830	828	830	180.00	1095	128		
559	1217	265	264	650.00	400	125		
560	1219	266	265	400.00	300	125		
561	1222	260	266	800.00	2000	130		
562	1223	266	269	300.00	600	125		
563	1224	266	267	650.00	2000	130		
564	1225	267	292	650.00	2000	125		
565	1226	287	295	332.00	1500	125		
566	1227	269	276	200.00	400	120		
567	1228	286	287	316.00	1500	125		
568	1229	285	283	350.00	400	130		
569	1231	287	281	300.00	260	65		
570	5231	267	281	300.00	600	130	~~AWSOP PP~~/MPLAN	BLK 5 ✓
571	1301	285	301	400.00	600	120		
572	1302	297	305	2100.00	1050	125		
573	1305	305	302	800.00	1050	125		
574	4262	262	264	750.00	600	125		
575	1819	31	31	600.00	1200	130		
576	5004	140	506	8000.00	2600	140	LBAQ-4	
577	1316	314	312	750.00	750	125		
578	308	306	308	150.00	400	110		
579	7830	306	308	500.00	1200	✓ 135	MPLAN PIPE	BLK 5
580	310	308	310	600.00	400	110		
581	7831	308	310	600.00	1200	✓ 135	MPLAN PIPE	
582	1312	311	312	2100.00	900	125		
583	1314	312	312	145.00	500	120		
584	7832	310	312	1450.00	1200	✓ 135	MPLAN PIPE	
585	1311	309	306	1000.00	600	115		
586	3033	306	2082	1670.00	450	130		
587	7834	306	2082	1670.00	600	✓ 130	MPLAN PIPE	
588	3032	2082	2081	330.00	300	120		
589	7835	2082	2081	330.00	600	✓ 130	MPLAN PIPE	
590	1310	309	311	2900.00	900	✓ 125		
591	1303	305	307	1750.00	1050	125		
592	304	302	304	1500.00	500	105		
593	7828	302	304	1500.00	1200	✓ 135	MPLAN PIPE	
594	1308	307	309	1100.00	1050	125		
595	306	306	306	2100.00	400	110		
596	7829	304	306	2600.00	1200	135	MPLAN PIPE	
597 V	4206	277	276		300			
598 V	4000	124	126		750			
599 V	4007	81	82		900			
600 V	4804	6090	404		3000			

99999.00	PIPE MKT
0.01	CALC PS BYPASS
0.01	TONOO PS BYPASS
0.01	PIPE BAGBAG

PIPE AND VALVE DATA

	NUMBER	NODE	NODE	LENGTH	DIAM	H-W COEF.	
601	V 4806	818	6115		1200	0.01	PIPE FT RUNI
602	V 4807	27	25		1050	0.01	PIPE
603	V 5000	252	258		100	99999.00	PIPE 254
604	V 5001	255	259		100	99999.00	PIPE 261
605	V 5002	257	264		100	99999.00	PIPE 267
606	V 5004	260	266		100	99999.00	PIPE 1222
607	V 5005	262	269		100	99999.00	PIPE 264
608	V 5006	822	824		100	99999.00	PIPE 822
609	V 5007	718	719		100	99999.00	PIPE 4715

NODE 838 NOT ON PIPES

NODE DATA

NUMBER	GROUND ELEV MT	RELATIVE DEMAND	DEMAND DISTRICT	MINIMUM HGL ELEV MT	DESCRIPTION	PIPE, VALVE, AND PUMP NUMBERS
1	2	12.0	5.840	BAGBAG	33.0	1144 1145
2	3	11.0	8.770	BAGBAG	32.0	43 101
3	6	26.0	22.120	BAGBAG	47.0	46 1138 1165
4	7	30.0	5.610	BAGBAG	51.0	1107 1109 1120
5	8	11.5	6.990	BAGBAG	32.5	1105
6	10	11.5	9.400	BAGBAG	32.5	1110 1136 1163
7	11	12.0	11.340	BAGBAG	33.0	1105 1136 1164
8	12	12.0	10.500	BAGBAG	33.0	1111 1112
9	13	13.0	6.990	BAGBAG	34.0	1112 1113 1351
10	14	12.0	12.490	BAGBAG	33.0	116 1115 1130
11	15	12.0	19.690	BAGBAG	22.0	10 116
12	16	18.0	25.620	BAGBAG	39.0	175 7008
13	17	22.0	33.790	BAGBAG	43.0	54 175 1352
14	18	26.0	22.390	BAGBAG	47.0	11 53 59 122
15	19	28.0	13.980	BAGBAG	49.0	46 120 135
16	20	30.0	27.580	BAGBAG	51.0	12 13 1120
17	21	26.0	32.570	BAGBAG	47.0	1116 1122 5031
18	22	32.0	28.460	BAGBAG	53.0	104 122 138 1154
19	25	20.0	6.680	BAGBAG	41.0	48 4807
20	27	20.0	9.030	BAGBAG	41.0	110 1127 4807
21	28	22.0	12.260	BAGBAG	43.0	1117 1129
22	29	20.0	6.600	BAGBAG	41.0	1125 1127 1129
23	30	12.0	9.400	BAGBAG	33.0	1161 1162 9036
24	31	20.0	27.950	BAGBAG	41.0	1131 4121 1132 7005
25	32	25.0	22.360	BAGBAG	46.0	25 53 1132 1153
26	33	11.0	4.800	BAGBAG	32.0	111 113 152 1134
27	35	15.0	4.620	BAGBAG	36.0	17 68 136 137
28	36	30.0	19.310	BAGBAG	51.0	104 107
29	37	26.0	10.080	BAGBAG	47.0	105 107
30	38	24.0	0.0	BAGBAG	45.0	105 106
31	39	22.0	32.400	BAGBAG	43.0	106 114
32	40	20.0	5.070	BAGBAG	41.0	62 114 8000
33	41	12.0	4.800	BAGBAG	33.0	20
34	42	13.0	4.800	BAGBAG	34.0	151 152
35	43	12.0	4.800	BAGBAG	33.0	52 111 112
36	45	12.0	6.390	BAGBAG	33.0	68 144 176
37	46	13.0	4.800	BAGBAG	34.0	150 151 157
38	47	12.0	7.420	BAGBAG	33.0	25 119 149 150 7060 9000
39	48	12.0	4.800	BAGBAG	33.0	119 148 149 153
40	49	12.0	4.800	BAGBAG	33.0	145 148
41	50	12.0	4.800	BAGBAG	33.0	144 145 146 147
42	51	12.0	6.060	BAGBAG	33.0	79 91 101 146
43	52	12.0	5.000	BAGBAG	33.0	147 153 154
44	53	12.0	4.800	BAGBAG	33.0	26 27 154 155
45	54	13.0	7.140	BALARA1	34.0	43 90 174
46	55	12.0	6.260	BAGBAG	32.0	90 128
47	56	12.0	6.790	BALARA1	33.0	29 5029 172
48	57	13.0	5.710	BALARA1	34.0	76 174
49	58	12.0	10.200	BALARA1	33.0	72 75 123
50	59	17.0	7.170	BALARA1	38.0	48 123 124 159

BLOCKS 2.3.4.5&6 (2015 PEAK HOUR - CASE 1) 07/04/95

ACCE DATA

	NUMBER	GROUND ELEV MT	RELATIVE DEMAND	DEMAND DISTRICT	MINIMUM HGL ELEV MT	DESCRIPTION	PIPE, VALVE, AND PUMP NUMBERS
51	60	12.0	-86.860	BALARA1	33.0		76
52	61	20.0	12.000	BALARA1	41.0		95 124
53	62	13.0	-5.990	BALARA1	34.0		31 127 173 1146
54	63	16.0	9.630	BALARA1	37.0		125 159 173
55	64	20.0	7.140	BALARA1	41.0		30 125
56	65	12.0	3.190	BAGBAG	33.0		22 23 158 9010 9015
57	66	12.0	4.800	BAGBAG	33.0		21 121 158 164 2015 9000 9010
58	67	12.0	6.390	BAGBAG	33.0		115 130 156 164
59	68	12.0	3.190	BAGBAG	33.0		130 141
60	69	12.0	4.800	BAGBAG	33.0		121 140
61	70	12.0	6.210	BAGBAG	33.0		20 108 140 170
62	71	12.0	0.0	BAGBAG	33.0		109 141
63	72	12.0	6.390	BAGBAG	33.0		155 160 161
64	73	12.0	2.150	BAGBAG	33.0		109 139 161 162
65	74	12.0	2.150	BAGBAG	33.0		108 162 163
66	75	12.0	7.240	BAGBAG	33.0		180 181
67	76	12.0	4.140	BAGBAG	33.0		24 142 170
68	77	12.0	2.150	BAGBAG	33.0		142 163 182
69	78	12.0	1.140	BAGBAG	33.0		178 182 198
70	79	12.0	3.960	BAGBAG	33.0		178 179
71	80	12.0	6.060	BAGBAG	33.0		67 131 139 179 184
72	81	12.0	-43.430	BAGBAG	33.0		131 160 4007
73	82	12.0	1.050	BAGBAG	33.0		67 102 4007
74	83	12.0	3.050	BAGBAG	33.0		49 102 165 187
75	84	13.0	6.850	BAGBAG	34.0		49 184 185
76	85	13.0	0.0	BAGBAG	34.0		183 185
77	86	12.0	2.150	BAGBAG	33.0		186 158
78	87	12.0	0.0	BAGBAG	33.0		186 187 199
79	88	13.0	1.210	BAGBAG	34.0		191 199
80	89	13.0	7.160	BALARA1	34.0		100 183 189
81	90	13.0	1.210	BALARA1	34.0		100 165 166 190
82	91	12.0	1.820	BALARA1	33.0		190 191 193
83	92	13.0	9.880	BALARA1	34.0		189 192
84	93	13.0	3.290	BALARA1	34.0		166 193 195
85	94	13.0	9.930	BALARA1	34.0		84 171 192 194
86	95	13.0	3.400	BALARA1	34.0		84 168 195 196
87	96	12.0	2.030	BALARA1	33.0		196
88	97	13.0	1.340	BALARA1	34.0		168 165 197
89	98	13.0	2.030	BALARA1	34.0		150 167 197
90	99	12.0	2.030	BALARA1	33.0		80 169
91	100	12.0	5.160	BALARA1	33.0		50 80 103 194
92	101	12.0	11.410	BALARA1	33.0		103 110 132 177
93	104	18.0	0.0	BALARA1	39.0		82 87 110
94	105	22.0	8.050	BALARA1	43.0		47 87 97 126
95	106	14.0	0.0	BALARA1	35.0		32 39 47 86
96	107	32.0	0.0	BALARA1	53.0		82 86 89 4123 631 4124
97	108	11.0	12.110	BALARA1	32.0		37 89 4123 744
98	109	12.0	0.0	BALARA1	33.0		36 38 711 4109
99	111	12.0	1.340	BALARA1	33.0		167
100	112	20.0	3.120	BALARA1	41.0		34 636

NODE DATA

	NUMBER	GROUND ELEV MT	RELATIVE DEMAND	DEMAND DISTRICT	MINIMUM HGL ELEV MT	DESCRIPTION	PIPE, VALVE, AND PUMP NUMBERS
101	113	28.0	6.070	BAGBAG	46.0		6 92 1125
102	114	30.0	7.160	BAGBAG	51.0		7 92 93
103	115	27.0	11.800	BAGBAG	48.0		35 94
104	116	26.0	2.400	BAGBAG	47.0		8 94 1122 5031 1195
105	117	38.0	9.870	BAGBAG	59.0		1114 1155
106	118	12.0	0.0	BAGBAG	33.0		75
107	119	12.0	0.0	BAGBAG	33.0		72 127
108	122	20.0	0.0	BAGBAG	41.0		62
109	123	26.0	0.0	BAGBAG	47.0		58 59
110	124	26.0	0.0	BAGBAG	47.0		58 4000
111	126	26.0	-43.430	BAGBAG	47.0		54 4000
112	128	30.0	0.0	BAGBAG	51.0		1153 1154
113	132	12.0	3.400	BAGBAG	33.0		52 1148 7060
114	135	24.0	19.800	BAGBAG	45.0		1108 1109
115	136	13.0	4.300	BAGBAG	34.0		19 137 1150 4126 1160 4127
116	137	12.0	6.390	BAGBAG	33.0		18 176 1148 1150 4126
117	138	12.0	9.400	BAGBAG	33.0		1110
118	152	26.0	5.070	BAGBAG	47.0		8
119	153	30.0	7.830	BAGBAG	51.0		7
120	154	28.0	3.060	BAGBAG	46.0		6
121	155	18.0	2.140	BALARA1	25.0		38 39
122	156	18.0	9.680	BALARA1	25.0		36 37
123	157	16.0	7.630	BALARA1	27.0		88 247
124	158	30.0	9.870	BAGBAG	51.0		1107 1166
125	159	24.0	6.590	BAGBAG	45.0		1113 1165
126	160	11.0	6.590	BAGBAG	32.0		1111 1164
127	161	12.0	11.670	BAGBAG	33.0		1115 1163
128	162	12.0	7.590	BAGBAG	33.0		1130 1162
129	163	10.0	11.840	BAGBAG	33.0		1134
130	164	30.0	13.980	BAGBAG	51.0		12 120
131	165	27.0	7.410	BAGBAG	48.0		11 135
132	166	12.0	25.150	BAGBAG	33.0		10 117
133	167	28.0	21.580	BAGBAG	49.0		13 138
134	168	12.0	18.050	BAGBAG	33.0		1131 4121 1160 4127
135	169	12.0	4.160	BAGBAG	33.0		15 136
136	170	12.0	4.800	BAGBAG	33.0		19 113
137	171	12.0	4.800	BAGBAG	33.0		18 112
138	172	12.0	3.190	BAGBAG	33.0		22
139	173	12.0	4.800	BAGBAG	33.0		21 157 2015
140	174	12.0	4.800	BAGBAG	33.0		25 115
141	175	12.0	4.800	BAGBAG	33.0		26 156
142	176	26.0	1.470	BALARA1	47.0		5
143	178	12.0	10.850	BAGBAG	33.0		27 128
144	179	12.0	5.710	BAGBAG	33.0		91 172
145	180	12.0	3.190	BAGBAG	33.0		23 181
146	181	12.0	6.210	BAGBAG	33.0		24 180 9015 9020
147	182	12.0	7.140	BALARA1	32.0		29 5029 171 1146
148	183	12.0	7.140	BALARA1	33.0		31 177
149	184	16.0	9.720	BALARA1	37.0		30 126
150	185	12.0	6.390	BAGBAG	33.0		33 97

NODE DATA

NUMBER	ZONE NUM	DEMAND	DEMAND DISTRICT	MINIMUM HGL ELEV	DESCRIPTION	PIPE, VALVE, AND PUMP NUMBERS
		MGD		FT		
151	186	1.[illegible]	2.3[illegible]	BALARA1	35.0	32 143
152	187	[illegible]	13.[illegible]0	BAGBAG	57.0	1103 1121
153	188	34.0	9.370	BAGBAG	55.0	1114 1121
154	189	28.0	9.870	BAGBAG	49.0	1116 1128
155	190	22.0	16.010	BAGBAG	43.0	1117 1128
156	191	30.0	11.950	BAGBAG	51.0	35 93
157	192	12.0	3.850	BAGBAG	33.0	16
158	193	12.0	8.060	BAGBAG	33.0	16 17 79
159	200	13.0	3.260	ERMITAPS	21.0	200 2003 9020
160	201	12.0	4.350	ERMITAPS	21.0	200 201
161	202	12.0	6.930	ERMITAPS	21.0	201 202 204
162	203	13.0	2.430	ERMITAPS	21.0	202 203 2002
163	204	13.0	0.0	PASIGGR	21.0	203
164	206	12.0	1.930	ERMITAPS	21.0	204 206
165	208	13.0	2.890	ERMITAPS	21.0	206 208 210
166	210	12.0	1.550	ERMITAPS	21.0	208 209
167	211	11.0	7.500	ERMITAPS	21.0	209 213
168	212	11.0	43.430	ERMITAPS	21.0	213
169	214	12.0	2.890	ERMITAPS	21.0	210 212
170	216	13.0	8.470	PASIGGR	21.0	217 1208 1216 9061
171	217	11.0	11.360	BALARAGR	21.0	220 5220 222
172	218	12.0	12.310	BALARAGR	21.0	217 218 220 5220
173	220	12.0	1.100	BALARAGR	21.0	218 226 228 230 2001
174	222	12.0	10.360	BALARAGR	21.0	224 226
175	223	12.0	12.720	BALARAGR	21.0	228 143
176	224	12.0	12.500	BALARAGR	21.0	222 224 132
177	226	12.0	5.610	ERMITAPS	21.0	212 214 1260
178	228	12.0	4.650	ERMITAPS	21.0	214 216 232
179	230	13.0	6.210	PASIGGR	21.0	216 1208 1210 2000
180	232	12.0	7.520	ERMITAPS	21.0	234 1260
181	234	13.0	7.520	ERMITAPS	21.0	232 234 236 238
182	236	13.0	6.270	PASIGGR	21.0	236 237 1210 1212
183	238	13.0	9.190	PASIGGR	21.0	230 237 239 242 243 4238 4246
184	240	12.0	5.260	PASIGGR	21.0	242 244
185	242	12.0	13.010	PASIGGR	21.0	244 246 247
186	243	13.0	0.0	ESPIRIPS	21.0	243 5204
187	244	13.0	0.0	ESPIRIPS	21.0	241 5241 245 5245 2043 4122
188	246	13.0	7.750	ESPIRIPS	21.0	241 5241 250 252
189	247	18.0	4.040	BALARAGR	21.0	1252 1254
190	248	12.0	6.740	PASIGGR	21.0	248 250 258
191	249	12.0	5.030	BALARAGR	21.0	1250 1252
192	250	12.0	6.440	PASIGGR	21.0	246 248
193	251	12.0	0.0	ESPIRIPS	21.0	238 239 255
194	252	13.0	0.0	ESPIRIPS	21.0	240 5240 254 5254 5000
195	253	12.0	2.910	ESPIRIPS	21.0	240 5240 245 5245
196	254	12.0	5.670	ESPIRIPS	21.0	252 256 1350
197	255	13.0	4.800	ESPIRIPS	21.0	255 261 5001
198	256	12.0	4.800	ESPIRIPS	21.0	1212 1218 4246
199	257	13.0	4.790	ESPIRIPS	21.0	256 267 5002
200	258	13.0	9.570	ESPIRIPS	21.0	254 5254 260 5260 5000

NODE DATA

	NUMBER	GROUND ELEV MT	RELATIVE DEMAND	DEMAND DISTRICT	MINIMUM HGL ELEV MT	DESCRIPTION	PIPE, VALVE, AND PUMP NUMBERS
201	259	12.0	4.790	ESPIRIPS	21.0		261 263 5001
202	260	13.0	5.760	PASIGGR	21.0		1218 1220 1350 1222 5004
203	262	13.0	9.390	PASIGGR	21.0		258 1220 1221 264 5005
204	263	14.0	8.140	PASIGGR	21.0		1221
205	264	12.0	4.800	ESPIRIPS	21.0		4262 267 1217 4262 5002
206	265	12.0	2.320	ESPIRIPS	21.0		1217 1219
207	266	13.0	3.480	PASIGGR	21.0		1219 1222 1223 1224 5004
208	267	13.0	5.700	PASIGGR	21.0		1224 1225
209	268	19.0	12.490	BALARAGR	21.0		257 4118 816 4119 1801
210	269	13.0	5.270	PASIGGR	21.0		264 270 1223 1227 5005
211	270	12.0	7.640	ESPIRIPS	21.0		260 5260 266 5266 269
212	271	18.0	4.770	MAKATIPS	21.0		253
213	272	13.0	1.520	PASIGGR	21.0		265 266 269
214	273	14.0	5.580	BALARAGR	21.0		257 4118
215	274	13.0	4.800	ESPIRIPS	21.0		262 263 265
216	276	13.0	6.260	PASIGGR	21.0		1227 4206
217	277	13.0	6.260	PASIGGR	21.0		259 4206
218	278	16.0	12.200	PASIGGR	21.0		259 824 5824
219	280	12.0	4.890	ESPIRIPS	21.0		272 273
220	281	13.0	0.0	PASIGGR	21.0		285 5285 1231 5231
221	282	13.0	2.880	PASIGGR	21.0		266 5266 272 274
222	283	13.0	4.570	PASIGGR	21.0		273 275 1229
223	284	13.0	1.920	PASIGGR	21.0		268 274 276
224	285	13.0	1.920	PASIGGR	21.0		275 301 1301
225	286	13.0	12.470	PASIGGR	21.0		276 278 1228
226	287	13.0	9.800	PASIGGR	21.0		1226 1228 1231 5231
227	288	13.0	9.100	PASIGGR	21.0		278 279 280
228	289	12.0	18.620	PASIGGR	21.0		280 281
229	290	12.0	7.980	PASIGGR	21.0		281 282
230	291	14.0	0.0	PASIGGR	21.0		282 283
231	292	14.0	9.570	PASIGGR	21.0		283 284 4032 1225
232	293	14.0	0.970	PASIGGR	21.0		270
233	294	16.0	1.340	FTBONIPS	21.0		284 4032
234	295	13.0	2.030	PASIGGR	21.0		1226 1225 5208
235	296	18.0	0.670	FTBONIPS	21.0		288
236	297	13.0	22.860	PASAYPS	21.0		300 7826 1302 5208
237	299	13.0	2.870	PASIGGR	21.0		279 303
238	300	13.0	18.440	PASAYPS	21.0		300 7826 302 7827
239	301	13.0	39.000	PASIGGR	21.0		285 5285 301 303 1301
240	302	13.0	9.230	PASAYPS	21.0		302 7827 1305 304 7828
241	304	12.0	5.530	BAGBAG	21.0		304 7828 306 7829
242	305	12.0	0.0	PASAYPS	21.0		1302 1305 1303
243	306	12.0	11.060	BAGBAG	21.0		308 7830 1311 3033 7834 306 7829
244	307	12.0	0.0	BAGBAG	21.0		1303 1308
245	308	12.0	35.750	BAGBAG	21.0		308 7830 310 7831
246	309	12.0	12.000	BAGBAG	21.0		1311 1310 1308
247	310	12.0	4.210	BAGBAG	21.0		310 7831 1314 7832
248	311	12.0	0.0	BAGBAG	21.0		1312 1310
249	312	12.0	55.770	BAGBAG	21.0		1316 1314 7832
250	314	12.0	0.0	BAGBAG	21.0		1316 1312

NODE DATA

NUMBER	GROUND ELEV MT	RELATIVE DEMAND	DEMAND DISTRICT	MINIMUM HGL ELEV MT	DESCRIPTION	PIPE, VALVE, AND PUMP NUMBERS
251	400	73.0	-857.140 BAGBAG	41.0		4400
252	402	72.0	-580.000 BALARAGP	21.0		5004
253	404	60.0	0.0 BAGBAG	81.0		4401 4804
254	411	42.0	0.0 BAGBAG	63.0		1166 4411
255	412	43.0	10.670 BAGBAG	64.0		1103 4411 4412
256	500				RESERVOIR	501 502
257	501				RESERVOIR	506 4117
258	502	30.0	0.0 BALARAS	51.0		501 504 505 900 4505
259	504	52.0	22.860 BALARAS	73.0		502 504 -502
260	505	52.0	-33.760 BALARAS	73.0		509 502
261	506	50.0	0.0 BALARAS	71.0		505 506 4117 507 508 2023 4502 5004
262	507	50.0	0.0 BALARAS	71.0		507 633
263	508	50.0	0.0 BALARAS	71.0		508 558
264	509	80.0	2.880 BALARAS	101.0		510 511 512
265	510	80.0	2.880 BALARAS	101.0		509 510 513 575
266	511	70.0	-2.880 BALARAS	91.0		511 512 514
267	512	78.0	4.250 BALARAS	99.0		513 515 576
268	513	59.0	1.450 BALARAS	80.0		514 518
269	514	58.0	4.180 BALARAS	79.0		517 519 561
270	516	58.0	0.0 BALARAS	79.0		518 520 571
271	517	57.0	0.0 BALARAS	78.0		520 521 522 524 541
272	518	54.0	5.660 BALARAS	75.0		521 523 1566 5566
273	519	54.0	0.460 BALARAS	75.0		522 523 530 5530
274	520	54.0	1.700 BALARAS	75.0		524 525
275	521	52.0	3.510 BALARAS	73.0		525 578
276	522	48.0	6.450 BALARAS	69.0		526 550 563 573
277	523	44.0	1.550 BALARAS	65.0		527 528
278	524	38.0	11.400 BALARAS	59.0		529 542 572
279	525	43.0	11.400 BALARAS	64.0		529 530 5530 580
280	526	46.0	5.310 BALARAS	67.0		540 580
281	527	33.0	6.230 BALARAS	54.0		544 545
282	528	34.0	3.840 BALARAS	55.0		545 546
283	529	34.0	3.840 BALARAS	55.0		546 547 548
284	530	32.0	12.230 BALARAS	53.0		5 547 549
285	531	40.0	3.740 BALARAS	61.0		548 550
286	532	40.0	6.450 BALARAS	61.0		549 551
287	533	46.0	7.040 BALARAS	67.0		552 5552 553 563 579
288	534	50.0	0.0 BALARAS	71.0		553 554
289	535	52.0	2.740 BALARAS	73.0		552 5552 554 559 5559 560 640 644 4144
290	536	52.0	0.0 BALARAS	73.0		558 632
291	537	47.0	2.740 BALARAS	66.0		561 577
292	538	67.0	4.170 BALARAS	88.0		516 517
293	539	36.0	5.540 BALARAS	57.0		542 544
294	541	56.0	7.680 BALARAS	77.0		562 574
295	542	57.0	0.0 BALARAS	78.0		515 519 541 571
296	543	43.0	1.550 BALARAS	64.0		528 572
297	544	48.0	1.550 BALARAS	49.0		527 573
298	545	56.0	6.020 BALARAS	77.0		559 5559 574
299	546	60.0	2.880 BALARAS	81.0		562 575
300	547	66.0	4.350 BALARAS	89.0		516 576

NODE DATA

	NUMBER	GROUND ELEV MT	RELATIVE DEMAND	DEMAND DISTRICT	MINIMUM HGL ELEV MT	DESCRIPTION	PIPE, VALVE, AND PUMP NUMBERS
301	548	46.0	2.740	BALARAS	67.C		566 577
302	549	41.0	3.510	BALARAS	62.C		526 578
303	551	32.0	6.440	BALARAS	52.C		551 579
304	552	50.0	5.310	BALARAS	71.0		540 1567
305	553	50.0	5.180	BALARAS	71.0		1566 5566 1567
306	600	52.0	10.080	SANJUAN	73.0		600 634 640
307	601	54.0	8.070	SANJUAN	75.C		600 642 1641
308	602	60.0	11.280	SANJUAN	81.C		602 603 622 4062
309	603	52.0	6.600	SANJUAN	73.0		604 4061 624 635 4064 637
310	607	52.0	6.600	SANJUAN	73.0		604 4061 644 4144 645
311	609	50.0	0.0	SANJUAN	71.0		610 611 632 645
312	610	45.0	0.0	SANJUAN	66.C		96 610 616
313	616	41.0	0.0	SANJUAN	62.C		611 616 617 633 4618
314	620	38.0	213.710	SANJUAN	59.C		620 4120 1628 1642
315	621	42.0	13.190	SANJUAN	63.C		620 4120 621 623 5623 628 5628
316	622	46.0	18.700	SANJUAN	67.C		621 622 4062 737
317	623	47.0	13.190	SANJUAN	68.C		623 5623 624 635 4064
318	624	40.0	9.890	SANJUAN	61.C		624 645
319	625	36.C	3.830	SANJUAN	57.C		625 646
320	626	30.0	3.830	SANJUAN	51.0		626 627
321	627	30.0	11.860	SANJUAN	59.0		627 628 5628 641 1639
322	628	38.0	0.0	SANJUAN	59.0		1628 1639
323	630	38.0	0.0	SANJUAN	59.C		629 630 631 4124 636
324	631	20.0	1.760	BAGBAG	49.C		95 96 1638
325	632	23.0	4.300	BAGBAG	44.0		33 34 1637
326	633	26.0	13.050	SANJUAN	47.0		641 1734
327	634	54.0	10.260	SANJUAN	75.0		603 1637 1641
328	635	20.0	2.560	BAGBAG	46.0		1638 1643
329	636	21.0	4.300	BAGBAG	42.C		1637 1643
330	641	53.C	8.070	SANJUAN	74.0		602 643
331	642	52.0	5.970	SANJUAN	73.0		642 643
332	644	33.0	3.300	SANJUAN	54.0		625 645 1642
333	645	22.0	2.530	SANJUAN	43.0		626 646
334	700	59.0	17.090	BALARA7	80.C		701 734 737
335	701	32.0	5.210	BALARA7	37.C		1701 1730 1734
336	702	38.0	3.210	BALARA7	59.C		1701 1702
337	703	46.0	0.0	BALARA7	67.C		701 1702
338	704	40.0	20.770	BALARA7	61.C		732 734 742
339	705	17.0	3.480	BALARA7	38.C		705 744
340	708	18.0	2.130	BALARA7	39.0		700 705
341	711	11.0	3.010	BALARA1	32.C		713 4711
342	712	49.0	4.100	BALARA7	70.C		706 709 715 735
343	713	12.0	2.400	BALARA1	33.C		711 713 1725
344	714	48.0	5.400	BALARA7	69.C		715 716
345	716	48.0	5.520	BALARA7	69.C		716 717
346	717	51.0	2.530	BALARA7	72.C		717 718 724 7004
347	718	50.0	0.0	BALARA7	61.C		718 4719 5007
348	719	30.0	1.720	BALARA7	56.C		719 2016 7045 5007
349	720	50.0	0.0	BALARA7	71.C		706 708
350	721	15.0	1.720	BALARA7	36.C		719 721

NODE DATA

NUMBER	GROUND ELEV MT	RELATIVE DEMAND	DEMAND DISTRICT	MINIMUM HGL ELEV MT	DESCRIPTION	PIPE, VALVE, AND PUMP NUMBERS
351	722	51.0	2.660	BALARA7	72.0	709 712
352	724	50.0	5.590	BALARA7	71.0	712 714
353	725	14.0	1.800	BALARA1	35.0	707 1725
354	726	16.0	3.580	BALARA7	37.0	700 702 4726
355	727	36.0	8.970	BALARA7	57.0	1712 1727
356	728	22.0	7.170	BALARA7	43.0	704 1732
357	729	15.0	0.0	BALARA7	36.0	721 723
358	730	38.0	5.630	BALARA7	59.0	704 708 714 726
359	732	30.0	1.720	BALARA7	51.0	724
360	734	20.0	4.780	BALARA7	41.0	726
361	736	20.0	0.0	CAPITLPS	21.0	1254 1821 1822
362	738	20.0	4.040	CAPITLPS	21.0	1821 5802
363	740	50.0	2.960	BALARA7	71.0	743 2015
364	741	50.0	6.220	BALARA7	71.0	722 743 2018 7001 7002
365	742	20.0	2.270	BALARA7	41.0	703 707
366	745	40.0	-123.880	BALARA7	61.0	7002
367	746	32.0	8.370	BALARA7	52.0	1727 1732 7015
368	747	42.0	11.150	BALARA7	63.0	732 735 1712 7001
369	748	50.0	2.000	BALARA7	71.0	722 7004
370	800	28.0	6.350	MAKATIPS	21.0	802 804 1811 8811 4800 8800
371	802	36.0	5.700	MAKATIPS	21.0	802 806
372	804	19.0	5.590	MAKATIPS	21.0	804 806 807
373	805	32.0	3.370	MAKATIPS	21.0	807 808 1809 1813 5813 1814 7010
374	806	36.0	4.720	BALARAGR	21.0	808 811 5811 814
375	807	18.0	11.000	MAKATIPS	21.0	1801 1803
376	808	18.0	15.590	MAKATIPS	21.0	253 812 5812
377	809	22.0	6.580	MAKATIPS	21.0	811 5811 812 5812 1803 1805
378	810	24.0	6.370	MAKATIPS	21.0	814 816 4119 818 7010
379	811	32.0	3.370	MAKATIPS	21.0	1805 1805
380	812	30.0	3.370	FTBONIPS	21.0	1814 1816
381	813	32.0	5.540	MAKATIPS	21.0	1811 8811 1813 5813
382	814	40.0	2.690	FTBONIPS	21.0	1816 1818
383	815	40.0	1.500	FTBONIPS	21.0	1818 5804
384	816	40.0	-28.550	FTBONIPS	21.0	1819 5804
385	818	16.0	0.0	BALARAGR	21.0	2016 1819 4806
386	820	14.0	2.210	BALARAGR	21.0	1822 1824
387	822	24.0	6.720	MAKATIPS	21.0	818 822 5006
388	824	22.0	3.360	MAKATIPS	21.0	822 824 5824 826 828 5006
389	826	28.0	1.990	MAKATIPS	21.0	826
390	828	20.0	4.510	MAKATIPS	21.0	828 830
391	830	20.0	7.610	MAKATIPS	21.0	288 830
392	904	19.0	5.420	BALARAGR	21.0	1902
393	906	18.0	13.510	BALARAGR	21.0	900 901 1902 2023
394	907	22.0	13.510	BALARAGR	21.0	1900 1906
395	908	19.0	7.100	BALARAGR	21.0	901 904
396	909	20.0	3.210	BALARAGR	21.0	1903 1904
397	910	19.0	22.730	BALARAGR	21.0	1904 1906
398	912	20.0	3.210	BALARAGR	21.0	904 906
399	914	20.0	13.510	BALARAGR	21.0	906 1000 1903
400	916	20.0	27.600	BALARAGR	21.0	1005

NODE DATA

	NUMBER	GROUND ELEV MT	RELATIVE DEMAND	DEMAND DISTRICT	MINIMUM HGL ELEV MT	DESCRIPTION	PIPE, VALVE, AND PUMP NUMBERS
401	1002	22.0	6.210	BALARAGR	21.0		1000 1002
402	1004	13.0	12.600	BALARAGR	21.0		1005 1006
403	1006	14.0	6.540	BALARAGR	21.0		1006 1008 1016
404	1008	14.0	6.570	BALARAGR	21.0		1002 1008
405	1016	14.0	6.570	BALARAGR	21.0		1016 1018 7700
406	1021	15.0	11.610	BALARAGR	21.0		723 7040
407	1216	13.0	0.0	PASIGGR	24.0		1216
408	2043	13.0	-43.430	ESPIRIPS	21.0		2043 4122 5204
409	2081	18.0	16.590	BAGBAG	21.0		3032 7835
410	2082	14.0	14.000	BAGBAG	21.0		3033 7834 3032 7835
411	4745	40.0	78.290	BALARAGR	61.0		7000 4040
412	4746	14.0	0.0	BALARAGR	21.0		7000 7700 4040
413	5264	13.0	0.0	ESPIRIPS	21.0		262 4262 4262
414	5502	45.0	0.0	BALARAS	66.0		1900 4505 4502
415	5618	41.0	128.000	SANJUAN	62.0		4619
416	5619	40.0	0.0	SANJUAN	62.0		617 625 630
417	5711	14.0	0.0	BALARA1	35.0		4109 4711 4726
418	5800	28.0	-18.080	MAKATIPS	49.0		4800 8800 5802
419	5804	18.0	0.0	BAGBAG	21.0		117 7008 1351
420	6000	12.0	0.0	BAGBAG	21.0		118 1145 8000
421	6015	32.0	0.0	BALARA7	21.0		1730 7015
422	6030	15.0	0.0	BALARAGR	21.0		1018 7040 7045
423	6085					RESERVOIR	4401 4412
424	6090	60.5	0.0	BAGBAG	21.0		4400 4804
425	6110	18.0	0.0	BALARA1	21.0		28
426	6115	16.0	0.0	BALARAGR	21.0		1824 4806
427	6120	12.0	0.0	BAGBAG	21.0		1133 9036
428	6122	20.0	0.0	BAGBAG	21.0		1133 7005 1352
429	6150	11.0	0.0	BAGBAG	21.0		1144
430	6182	24.0	0.0	ERMITAPS	21.0		5060 9061
431	8000	12.0	0.0	BALARAGR	33.0		2000 2001
432	8001	12.0	0.0	BAGBAG	33.0		2002 2003 9060
433	8006	13.0	0.0	BAGBAG	34.0		1161
434	8007	48.0	0.0	BALARA7	69.0		2017 2018
435	8008	49.0	0.0	BALARA7	70.0		742 2017 2019
436	8246	13.0	0.0	ESPIRIPS	21.0		4238
437	8509	50.0	0.0	BALARA7	56.0		4719
438	8516	12.0	0.0	PASIGGR	21.0		1250

RESERVOIR DATA

NUMBER	WATER SURFACE ELEV./SCHEDULE MT	INFLOW RATE /SCHEDULE ML/D	EST. SUPPLY RATE/SCHEDULE ML/D	ELEV. MT	VOLUME MGL	ELEV. MT	VOLUME MGL	ELEV. MT	VOLUME MGL	CURVE COEFFICIENTS MC MT	A	B
1 501	58.30	0.000	500.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 6085	65.00	0.000	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 500	58.30	0.000	1250.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PRESSURE REGULATOR DATA

NUMBER	NODE	CEMANC NCLE	D/S HGL RATE/SCHEDULE	ELEV./SCHEDULE

30 BLOCKS 2,3,4,5&6 (2015 PEAK HOUR - CASE 1) 07/04/95

SCHEDULE DATA

	ID	UNITS	DESIGN CONDITION NUMBERS 5
1	PASYRCST	JTS	2204.000
2	BALRECST	B	1004.000
3	CUBADCST	BP	2000.000
4	ESPTRCST	Y	2104.000
5	ARTIRCST		3012.000
6	FTRCRCST		2112.000
7	PEAKFACT	J	1.750

PUMP DATA

NUMBER	NODE	NODE	CURVE NO./SCHEDULE
1	5208	295	297 PASYBCST
2	502	504	505 BALRCCST
3	645	609	607 CUBABCST
4	5204	243	2043 FSPTBCST
5	5E02	736	5000 MKTIBCST
6	5204	816	815 FTPCBCST

PUMP CURVE DATA

NUMBER	HEAD UNITS	FLOW UNITS	HEAD	FLOW	HEAD	FLOW	HEAD	FLOW	CURVE NO MTR	COEFFICIENTS A	B
1004	MTR	MLD	45.00	120.000	36.00	170.000	31.00	186.000	48.26	0.40416E-07	3.803
2000	MTR	MLD	33.50	30.000	32.50	110.000	31.50	125.000	33.50	0.87097E-11	5.418
2112	MTR	MLD	52.92	20.000	42.92	70.000	38.92	86.000	53.72	0.19730E-02	2.003
2104	M	MLD	40.00	60.000	30.00	156.000	24.00	196.000	42.36	0.19455E-02	1.734
2304	M	MLD	27.00	172.000	17.00	268.000	11.00	308.000	32.38	0.27415E-04	2.368
8012	M	MLD	48.92	40.000	41.92	112.000	32.92	176.000	50.66	0.54091E-02	1.566

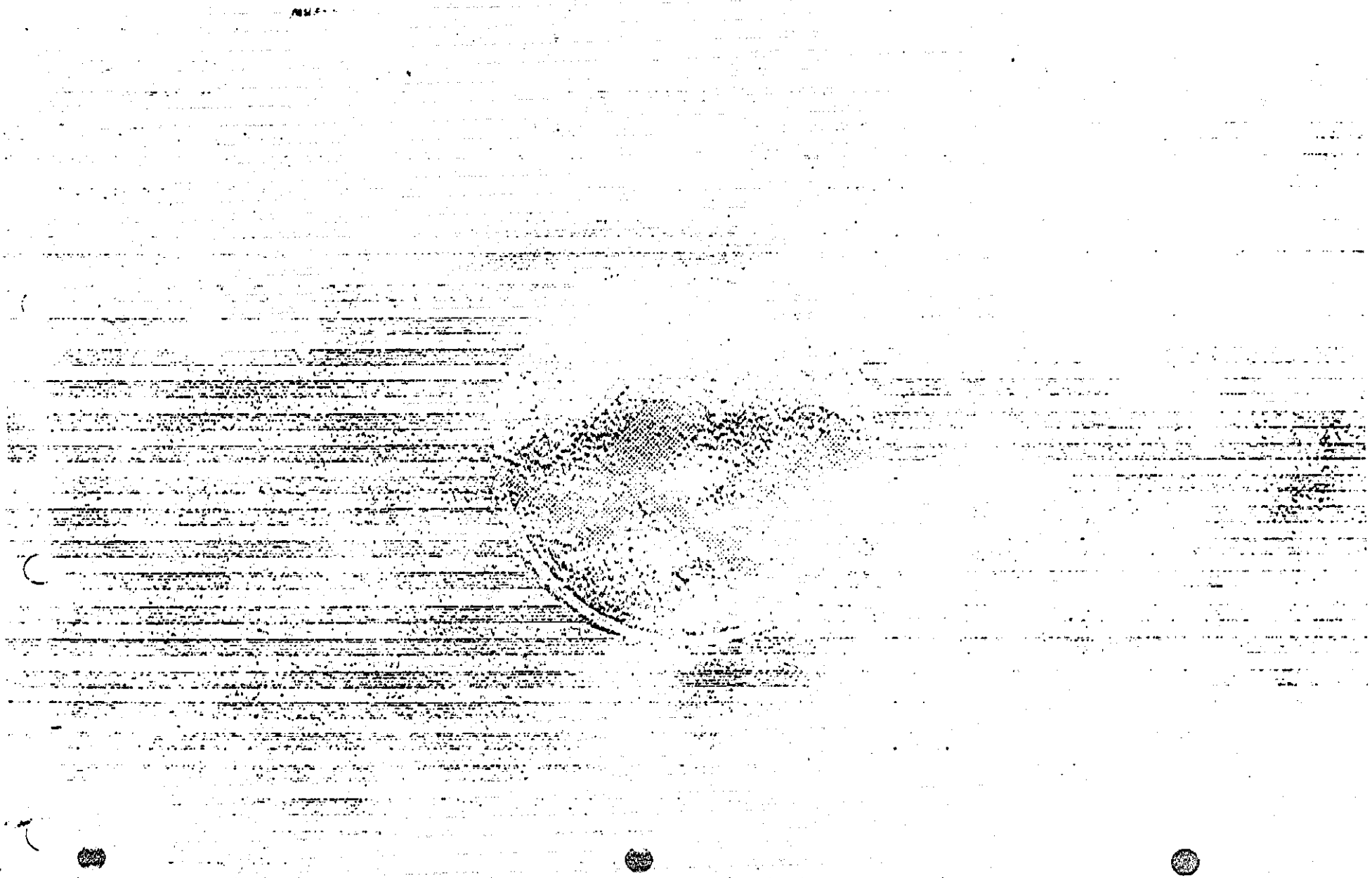
END OF NETWORK SELECTION PROCESS

SUMMARY OF DEMANDS AVERAGE 10AM

NO.	DEMAND DISTRICT	SUM OF RELATIVE DEMANDS	TOTAL DEMAND WITHOUT FACTORS ML/D	PEAKING FACTOR	TOTAL DEMAND WITH PEAKING FACTOR ML/D	TOTAL DEMAND WITH MULTIPLIER ML/D	SPECIAL FLOWS ML/D	TOTAL DEMAND ML/D
1	BAGBAG	167.306	100.000	1.750	175.000	175.000	0.0	175.000
2	BALARAI	127.070	100.000	1.750	175.000	175.000	0.0	175.000
3	BALARAS	162.500	100.000	1.750	175.000	175.000	0.0	175.000
4	ERMITAPS	15.600	100.000	1.750	175.000	175.000	0.0	175.000
5	BALARAGR	-247.392	100.000	1.750	175.000	175.000	0.0	175.000
6	PASIGGR	264.520	100.000	1.750	175.000	175.000	0.0	175.000
7	SANJUAN	74.690	100.000	1.750	175.000	175.000	0.0	175.000
8	BALARA7	22.570	100.000	1.750	175.000	175.000	0.0	175.000
9	ESPIRIPS	35.690	100.000	1.750	175.000	175.000	0.0	175.000
10	MAKATIPS	87.060	100.000	1.750	175.000	175.000	0.0	175.000
11	CAPITLPS	-4.040	100.000	1.750	175.000	175.000	0.0	175.000
12	FTBONIPS	-18.980	100.000	1.750	175.000	175.000	0.0	175.000
13	PASAYPS	4.810	100.000	1.750	175.000	175.000	0.0	175.000
	TOTAL		1300.000		2275.000	2275.000	0.0	1169.030

33 BANDWIDTH 39

SOLUTION REACHED IN 16 ITERATIONS. 0.0009 ML/D UNBALANCE



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BLOCKS 2,3,4,5&6 (2013 PEAK HOUR - CASE 1) 07/24/95

PIPE NO	NODES FROM	TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	CK	--HEADLOSS MT	MT/1000	CK
200	201	200	500	450.	105	0.656E-02	-6.60	0.40	LO	0.22	0.48	LO
201	202	201	500	400.	105	0.583E-02	1.01	0.06	LO	0.01	0.01	LO
202	202	203	300	850.	105	0.150E 00	2.27	0.38	LO	0.68	0.80	
203	204	203	300	400.	60	0.199E 00	0.0	0.0	LO	0.0	0.0	LO
204	206	202	500	1100.	105	0.161E-01	15.41	0.93		2.55	2.31	HI
206	208	206	500	280.	110	0.276E-02	18.78	1.13		0.86	3.07	HI
208	210	208	900	500.	110	0.382E-03	60.16	1.12		0.76	1.51	
209	211	210	900	350.	110	0.268E-03	62.68	1.17		0.57	1.64	
210	208	214	500	326.	105	0.477E-02	36.22	2.19		3.69	11.33	HI
212	214	226	500	340.	105	0.497E-02	31.27	1.88		2.92	8.58	HI
213	211	212	900	250.	110	0.192E-03	76.00	1.41		0.58	2.33	HI
214	226	228	300	730.	65	0.312E 00	3.03	0.51	LO	2.43	3.33	HI
216	228	230	300	520.	65	0.222E 00	-3.53	0.59	LO	2.29	4.41	HI
217	218	216	900	972.	110	0.745E-03	-2.78	0.05	LO	0.00	0.01	LO
218	218	220	900	263.	105	0.220E-03	-40.63	0.75	LO	0.21	0.80	
220	217	218	300	500.	120	0.687E-01	-6.61	1.11		2.27	4.54	HI
5220	217	218	400	500.	130	0.246E-01	-15.26	1.44		2.27	4.54	HI
222	224	217	300	1040.	105	0.183E 00	-1.59	0.33	LO	0.66	0.63	
224	224	222	400	1590.	60	0.194E 00	1.59	0.15	LO	0.46	0.29	LO
226	222	220	400	500.	110	0.199E-01	-16.54	1.56		3.59	7.18	HI
228	223	220	1350	1600.	105	0.185E-03	156.62	1.62		3.28	2.05	HI
230	220	238	1050	700.	105	0.276E-03	134.81	1.84		2.42	3.46	HI
232	228	234	400	680.	60	0.831E-01	-1.58	0.15	LO	0.19	0.29	LO
234	234	232	300	800.	125	0.102E 00	-5.26	0.88		2.21	2.76	HI
236	234	236	500	500.	65	0.178E-01	-10.59	0.66	LO	1.50	3.01	HI
237	236	238	500	500.	60	0.206E-01	8.72	0.53	LO	1.14	2.27	HI
238	234	251	400	750.	60	0.517E-01	1.50	0.14	LO	0.19	0.26	LO
239	238	251	500	1450.	60	0.598E-01	3.25	0.20	LO	0.56	0.39	LO
240	253	252	600	700.	120	0.329E-02	-40.34	1.69		3.09	4.42	HI
5240	253	252	750	700.	135	0.892E-03	81.61	2.18		3.09	4.42	HI
241	244	246	600	537.	120	0.252E-02	40.56	1.70		2.40	4.47	HI
5241	244	246	750	537.	135	0.684E-03	82.06	2.20		2.40	4.47	HI
242	238	240	750	250.	110	0.466E-03	-25.46	0.68	LO	0.19	0.75	
243	238	243	1200	300.	105	0.617E-04	172.65	1.81		0.87	2.89	HI
244	240	242	750	1450.	110	0.272E-02	-34.84	0.53		1.94	1.34	
245	244	253	600	700.	120	0.325E-02	42.02	1.76		3.34	4.77	HI
5245	244	253	750	700.	135	0.892E-03	85.02	2.27		3.34	4.77	HI
246	242	250	600	900.	75	0.728E-01	-4.29	0.41	LO	1.13	1.25	
248	250	248	400	750.	75	0.606E-01	-15.66	1.47		9.89	13.19	HI
250	246	248	600	1396.	105	0.840E-02	47.56	1.99		10.72	7.68	HI
252	246	254	600	750.	90	0.600E-02	61.50	2.57		12.33	16.44	HI
253	808	271	300	950.	85	0.247E 00	8.35	1.40		12.58	13.24	HI
254	252	258	600	1075.	120	0.505E-02	58.52	2.45		9.46	8.80	HI
5254	252	258	600	1075.	130	0.436E-02	63.40	2.65		9.46	8.80	HI
255	251	255	400	1000.	65	0.105E 00	4.85	0.46	LO	1.96	1.96	
256	254	257	600	750.	90	0.600E-02	38.63	1.62		5.26	7.02	HI
257	268	273	300	1050.	85	0.272E 00	3.86	0.65	LO	3.33	3.18	HI
4118	268	273	300	1050.	130	0.124E 00	5.90	0.99		3.33	3.18	HI
258	248	262	400	850.	85	0.545E-01	20.10	1.89		14.11	16.61	HI
802	800	802	600	300.	105	0.181E-02	32.18	1.35		1.12	3.73	HI

PIPE NO	NODES FROM	NODES TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	--VEL-- CK	--HEADLOSS MT	--HEADLOSS MT/1000	--HEADLOSS CK
804	803	804	500	700.	110	0.935E-02	17.43	1.06		1.87	2.67	HI
806	802	804	600	400.	105	0.241E-02	22.21	0.93		0.75	1.87	
807	804	805	715	650.	122	0.124E-02	29.65	0.38		0.67	1.03	
808	905	806	718	480.	128	0.835E-03	49.23	1.44		1.14	2.37	HI
811	806	809	300	663.	85	0.173E 00	4.26	0.71	LO	2.53	3.81	HI
5811	206	809	600	663.	130	0.269E-02	40.25	1.69		2.53	3.81	HI
812	809	808	300	300.	85	0.781E-01	3.40	0.57	LO	0.75	2.52	HI
5812	809	808	600	300.	130	0.122E-02	32.23	1.35		0.75	2.52	HI
814	806	810	715	850.	123	0.162E-02	-3.54	0.10	LO	0.02	0.02	LO
816	810	268	300	800.	85	0.206E 00	7.34	1.23		8.35	10.43	HI
4119	810	268	300	800.	120	0.111E 00	10.36	1.73		8.35	10.43	HI
818	810	822	1313	300.	108	0.278E-04	76.23	0.67	LO	0.12	0.39	LO
822	822	824	1134	150.	128	0.321E-04	64.47	0.80	LO	0.07	0.48	LO
1208	216	230	2200	550.	130	0.427E-05	538.65	1.67		0.49	0.83	
1210	230	236	2200	750.	130	0.543E-05	526.96	1.64		0.60	0.79	
1212	236	256	2200	1600.	130	0.116E-04	456.29	1.54		1.14	0.71	
1216	1216	216	900	10.	115	0.706E-05	0.0	0.0	LO	0.0	0.0	LO
1218	256	260	2200	1100.	130	0.756E-05	463.79	1.44		0.69	0.63	
1220	260	262	600	500.	120	0.235E-02	13.21	0.56	LO	0.28	0.57	
1221	262	263	400	400.	120	0.135E-01	14.24	1.34		1.85	4.63	HI
1250	249	6516	600	700.	120	0.329E-02	0.0	0.0	LO	0.0	0.0	LO
1252	247	249	600	2200.	120	0.103E-01	8.80	0.37	LO	0.58	0.26	LO
1254	736	247	750	1000.	125	0.147E-02	15.87	0.42	LO	0.25	0.25	LO
1260	226	232	1032	400.	120	0.134E-03	18.42	0.25	LO	0.03	0.07	LO
1801	268	807	400	430.	120	0.146E-01	13.92	1.31		1.91	4.44	HI
1803	807	809	500	520.	120	0.594E-02	23.17	2.00		3.89	7.48	HI
1805	805	811	600	350.	120	0.164E-02	35.71	1.49		1.23	3.53	HI
1809	805	811	600	520.	120	0.244E-02	41.60	1.74		2.43	4.68	HI
1811	800	813	750	500.	130	0.683E-03	47.70	1.28		0.88	1.75	
8011	800	813	750	500.	135	0.637E-03	49.53	1.33		0.88	1.75	
1813	813	805	750	1150.	130	0.157E-02	42.94	1.15		1.66	1.44	
5813	813	805	750	1150.	135	0.147E-02	44.59	1.19		1.66	1.44	
1814	812	805	1200	700.	125	0.104E-03	88.06	0.92		0.42	0.59	
1816	814	812	1200	1285.	125	0.191E-03	53.96	0.98		0.86	0.67	
1818	815	814	1200	233.	125	0.347E-04	98.66	1.03		0.17	0.73	
1821	736	738	900	324.	125	0.156E-03	122.28	2.48		1.69	5.21	HI
1822	820	736	1050	1187.	125	0.235E-03	149.26	2.04		3.59	3.03	HI
1824	6115	820	1500	1074.	125	0.540E-04	153.12	1.02		0.60	0.56	
2002	203	8001	300	330.	125	0.421E-01	-1.59	0.33	LO	0.15	0.45	LO
2000	230	8000	300	800.	125	0.102E 00	-2.70	0.45	LO	0.64	0.80	
2001	8000	220	400	250.	125	0.783E-02	-2.70	0.25	LO	0.05	0.20	LO
2003	200	8001	2200	900.	135	0.603E-05	558.24	1.74		0.74	0.82	
2043	2043	244	1171	176.	132	0.267E-04	167.23	1.84		0.35	1.99	
4122	2043	244	900	176.	130	0.590E-04	82.42	1.53		0.35	1.99	
4238	238	8246	600	689.	125	0.300E-02	0.0	0.0	LO	0.0	0.0	LO
4246	256	238	2200	250.	135	0.169E-05	24.09	0.07	LO	0.00	0.00	LO
4800	5800	800	750	29.	125	0.426E-04	57.55	1.54		0.08	2.67	HI
8600	5800	800	900	29.	135	0.152E-04	100.40	1.87		0.08	2.67	HI
7010	805	810	1200	1280.	125	0.191E-03	108.62	1.14		1.12	0.88	
9060	8001	6102	2200	1250.	130	0.905E-05	556.26	1.73		1.10	0.88	

BLOCKS 2,3,4,5&6 (2015 PEAK HOUR - CASE 1)

07/30/85

PIPE NO	NODES FROM	NODES TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	--CK	--HEADLOSS MT	MT/1000	CK
9061	6182	216	2200	1500.	135	0.101E-04	556.26	1.73		1.23	0.82	
5	530	176	400	800.	65	0.842E-01	2.57	0.24	LO	0.48	0.61	
6	113	154	400	800.	60	0.978E-01	5.35	0.50	LO	2.19	2.73	HI
7	114	153	400	1200.	105	0.522E-01	10.70	1.29		6.63	5.52	HI
8	116	152	400	1100.	105	0.477E-01	8.67	0.83		2.72	2.47	HI
10	166	15	600	1550.	95	0.675E-02	22.59	1.11		4.28	2.76	HI
11	18	165	300	475.	60	0.236E 00	7.47	1.25		9.76	20.56	HI
12	20	164	600	1000.	105	0.602E-02	40.41	1.69		5.68	5.68	HI
13	20	167	2360	550.	128	0.114E-05	1272.64	2.34		0.64	1.17	
15	32	169	584	650.	115	0.377E-02	30.68	1.35		2.14	3.29	HI
16	193	192	300	780.	65	0.324E 00	6.74	1.13		11.42	14.64	HI
17	35	193	400	470.	65	0.495E-01	11.48	1.08		4.54	9.66	HI
18	137	171	300	350.	100	0.674E-01	10.30	1.77		5.32	15.19	HI
19	136	170	300	750.	120	0.102E 00	10.24	1.73		7.80	10.40	HI
20	70	41	400	300.	105	0.130E-01	8.40	0.79	LO	0.67	2.23	HI
21	66	173	300	480.	115	0.714E-01	3.98	0.67	LO	0.92	1.92	
22	65	172	400	1050.	100	0.495E-01	5.58	0.53	LO	1.20	1.15	
23	65	180	400	400.	100	0.190E-01	11.42	1.07		1.72	4.31	HI
24	181	76	400	1080.	105	0.448E-01	3.38	0.32	LO	0.45	0.41	LO
25	47	174	300	620.	65	0.265E 00	4.86	0.81		4.96	7.99	HI
26	53	175	500	390.	75	0.106E-01	10.36	0.62	LO	0.81	2.07	HI
27	178	53	500	628.	85	0.136E-01	16.28	0.98		2.38	3.79	HI
29	56	182	300	400.	65	0.171E 00	2.20	0.54	LO	1.48	3.69	HI
5029	56	182	400	400.	130	0.117E-01	13.65	1.28		1.48	3.69	HI
30	64	184	1200	400.	110	0.755E-04	25.41	0.27	LO	0.03	0.08	LO
31	183	62	750	500.	65	0.247E-02	7.31	0.20	LO	0.10	0.20	LO
32	106	186	1350	1050.	105	0.122E-03	222.66	1.84		2.72	2.59	HI
33	632	185	1500	250.	105	0.521E-04	194.01	1.30		0.90	1.20	
34	112	632	1500	250.	110	0.155E-04	210.20	1.41		0.32	1.27	
35	115	191	766	600.	128	0.761E-03	50.88	1.31		1.10	1.84	
36	156	109	900	500.	110	0.383E-03	87.75	1.63		1.52	3.04	HI
37	108	156	900	450.	110	0.345E-03	104.69	1.95		1.90	4.22	HI
38	155	6110	600	770.	110	0.425E-02	0.0	0.0	LO	0.0	0.0	LO
39	106	155	600	760.	110	0.420E-02	2.74	0.16	LO	0.05	0.06	LO
43	54	3	728	725.	120	0.133E-02	83.29	2.37		4.79	6.60	HI
46	19	6	400	800.	105	0.347E-01	14.02	1.32		4.61	5.76	HI
47	106	105	1050	600.	70	0.501E-03	48.16	0.66	LO	0.65	1.09	
48	59	25	1050	240.	85	0.140E-03	1.07	0.01	LO	0.00	0.00	LO
49	84	83	500	323.	60	0.133E-01	1.17	0.07	LO	0.02	0.05	LO
50	100	98	900	800.	70	0.142E-02	26.29	0.49	LO	0.60	0.75	
52	43	132	300	350.	90	0.815E-01	5.17	1.53		4.96	14.18	HI
53	32	18	584	450.	105	0.205E-02	26.65	1.18		1.37	3.04	HI
54	126	17	750	1400.	65	0.691E-02	46.01	1.23		8.29	5.92	HI
58	123	124	750	112.	80	0.376E-03	25.59	0.80		0.20	1.82	
59	123	18	750	120.	80	0.403E-03	25.59	0.80		0.22	1.82	
62	40	122	750	130.	80	0.437E-03	0.0	0.0	LO	0.0	0.0	LO
67	82	80	900	133.	105	0.111E-03	39.46	0.73	LO	0.10	0.75	
68	35	45	500	600.	105	0.877E-02	6.76	0.41	LO	0.30	0.50	
72	58	119	1200	50.	85	0.152E-04	25.62	0.27	LO	0.01	0.13	LO
75	58	118	750	200.	85	0.600E-03	0.0	0.0	LO	0.0	0.0	LO

PIPE NO	NODES FROM	NODES TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	--VEL-- CK	--HEADLOSS MT	--HEADLOSS MT/1000	--HEADLOSS CK
76	60	57	1050	600.	85	0.350E-03	152.00	2.07		3.84	6.40	HI
79	51	193	400	700.	60	0.855E-01	5.27	0.88		5.39	7.70	HI
80	100	99	650	300.	60	0.345E-02	6.36	0.23	LO	0.11	0.35	LO
82	107	104	1303	1700.	70	0.496E-03	79.80	0.71	LO	1.65	0.97	
84	94	95	400	370.	60	0.452E-01	5.05	0.47	LO	0.91	2.45	HI
86	107	106	1532	1100.	75	0.128E-03	178.64	1.15		1.90	1.73	
87	105	104	1050	350.	110	0.127E-03	78.16	1.07		0.41	1.16	
88	105	157	900	350.	110	0.268E-03	66.57	1.24		0.64	1.82	
89	107	108	900	1400.	110	0.107E-02	97.77	1.82		5.20	3.71	HI
4123	107	108	600	1400.	130	0.567E-02	39.78	1.66		5.20	3.71	HI
90	54	55	750	600.	70	0.256E-02	46.22	1.24		3.12	5.21	HI
91	51	179	300	1479.	65	0.623E 00	5.02	0.84		12.54	8.48	HI
92	114	113	350	1300.	75	0.201E 00	3.74	0.46	LO	2.32	1.78	
93	191	114	766	800.	128	0.102E-02	26.97	0.77	LO	0.55	0.69	
94	116	115	772	510.	130	0.605E-03	71.53	1.81		1.65	3.23	HI
95	631	61	1200	631.	85	-0.192E-03	85.54	0.89		0.73	1.15	
96	610	631	1200	3000.	85	0.913E-03	51.56	0.56		3.95	1.32	
97	185	105	1500	1150.	105	0.795E-04	182.82	1.22		1.23	1.07	
100	89	90	300	320.	60	0.155E 00	-0.79	0.13	LO	0.10	0.32	LO
101	51	3	728	755.	120	0.128E-02	-67.55	1.93		3.42	4.53	HI
102	82	83	500	589.	105	0.861E-02	8.41	0.51	LO	0.44	0.75	
103	101	100	1528	600.	85	0.562E-04	56.72	0.62	LO	0.27	0.45	LO
104	22	36	1050	611.	85	0.356E-03	84.21	1.15		1.31	2.15	HI
105	37	38	1050	217.	85	0.127E-03	32.68	0.45	LO	0.08	0.38	LO
106	38	39	1050	85.	85	0.496E-04	32.68	0.45	LO	0.03	0.38	LO
107	36	37	1050	697.	85	0.406E-03	50.82	0.69	LO	0.58	0.83	
108	74	70	400	680.	105	0.295E-01	8.69	0.82		1.62	2.38	HI
109	73	71	400	540.	60	0.660E-01	2.00	0.19	LO	0.24	0.44	LO
110	104	101	1528	650.	75	0.765E-04	157.56	1.02		0.91	1.39	
111	43	33	300	880.	90	0.206E 00	2.95	0.49	LO	1.52	1.73	
112	43	171	300	430.	85	0.112E 00	-2.18	0.36	LO	0.47	1.10	
113	33	170	300	500.	105	0.880E-01	-1.94	0.32	LO	0.30	0.60	
114	39	40	1050	40.	85	0.233E-04	65.58	1.22		0.10	2.40	HI
115	174	67	300	550.	65	0.225E 00	-3.54	0.59	LO	2.44	4.44	HI
116	15	14	500	1200.	60	0.495E-01	1.87	0.11	LO	0.16	0.13	LO
117	5804	166	666	200.	85	0.107E-02	74.60	2.60		3.30	16.51	HI
118	6000	27	1050	1230.	85	0.717E-03	70.49	0.96		1.90	1.54	
119	47	48	300	580.	105	0.102E 00	-1.15	0.19	LO	0.13	0.23	LO
120	164	19	600	800.	105	0.481E-02	15.94	0.67	LO	0.81	1.01	
121	66	69	400	360.	105	0.156E-01	17.19	1.62		3.03	8.40	HI
122	22	13	1050	1271.	85	0.741E-03	43.51	0.59	LO	0.80	0.63	
123	59	58	1200	2000.	85	0.609E-03	43.32	0.45	LO	0.65	0.33	LO
124	61	59	1200	1000.	85	0.304E-03	64.54	0.67	LO	0.68	0.68	
125	63	64	1218	760.	125	-0.105E-03	-12.91	0.13	LO	0.01	0.02	LO
126	184	105	1200	800.	110	0.151E-03	-42.42	0.44	LO	0.16	0.19	LO
127	119	62	750	672.	65	0.232E-02	25.82	0.69	LO	1.36	2.03	HI
128	55	178	600	1000.	85	0.890E-02	25.27	1.47		6.53	6.53	HI
130	67	68	300	200.	60	0.992E-01	3.59	0.60	LO	1.05	5.27	HI
131	81	80	600	325.	105	0.196E-02	8.40	0.35	LO	0.10	0.31	LO
132	101	224	500	910.	60	0.375E-01	21.47	1.29		10.97	12.06	HI

PIPE NO	NODES FROM-TO		DIA MM	L MTRS	F-W C	K-VALUE	FLOW	--VEL-- MPS--CK	--HEADLOSS MT	MT/1000	CK
135	165	19	300	462.	60	0.225E 00	-5.50	0.92	5.38	11.64	HI
136	169	85	584	670.	120	0.259E-02	23.40	1.03	1.23	1.84	
137	35	136	300	680.	105	0.130E 00	-2.92	0.49 LO	0.87	1.28	
138	22	167	2000	600.	128	0.125E-05	-1234.87	2.27	0.66	1.10	
139	80	76	500	273.	65	0.976E-02	2.50	0.17 LO	0.07	0.26	LO
140	69	70	400	300.	105	0.120E-01	6.79	0.83	0.73	2.42	HI
141	71	68	300	250.	60	0.124E 00	2.00	0.33 LO	0.45	1.79	
142	77	76	400	150.	105	0.650E-02	5.65	0.53 LO	0.16	1.07	
143	186	223	1350	1000.	105	0.116E-03	218.88	1.81	2.50	2.50	HI
144	50	45	500	470.	105	0.687E-02	2.61	0.16 LO	0.04	0.09	LO
145	49	50	500	460.	105	0.673E-02	-15.16	0.91	1.03	2.25	HI
146	51	50	750	516.	105	0.105E-02	42.96	1.15	1.11	2.15	HI
147	50	52	500	700.	105	0.102E-01	16.78	1.01	1.90	2.71	HI
148	48	49	500	400.	105	0.585E-02	-6.76	0.41 LO	0.20	0.50	
149	47	48	500	630.	105	0.921E-02	4.22	0.25 LO	0.13	0.21	LO
150	47	46	500	660.	105	0.965E-02	23.98	1.44	3.47	5.25	HI
151	42	46	692	380.	100	0.125E-02	-32.63	1.03	0.79	2.09	HI
152	33	42	600	729.	105	0.429E-02	-24.23	1.01	1.61	2.20	HI
153	48	52	300	300.	100	0.570E-01	3.74	0.62 LO	0.66	2.21	HI
154	52	53	500	354.	80	0.857E-02	11.77	0.71 LO	0.82	2.33	HI
155	53	72	500	767.	80	0.186E-01	9.30	0.56 LO	1.15	1.50	
156	67	175	500	1000.	80	0.242E-01	-1.56	0.12 LO	0.08	0.08	LO
157	46	173	626	1300.	125	0.461E-02	-17.05	0.63 LO	0.88	0.68	
158	66	65	500	713.	100	0.114E-01	9.36	0.56 LO	0.72	1.01	
159	59	63	1200	604.	105	0.124E-03	7.60	0.08 LO	0.01	0.01	LO
160	81	72	750	149.	105	0.302E-03	17.89	0.48 LO	0.06	0.42	LO
161	72	73	712	146.	80	0.632E-03	16.01	0.48 LO	0.11	0.74	
162	73	74	400	180.	105	0.780E-02	12.15	1.24	0.92	5.12	HI
163	74	77	300	570.	60	0.282E 00	0.70	0.12 LO	0.14	0.25	LO
164	66	67	500	300.	100	0.480E-02	16.25	0.98	0.85	2.83	HI
165	90	83	500	422.	105	0.617E-02	1.97	0.12 LO	0.02	0.05	LO
166	90	93	500	601.	105	0.879E-02	-5.61	0.34 LO	0.21	0.36	LO
167	111	98	900	1200.	70	0.212E-02	-2.24	0.04 LO	0.01	0.01	LO
168	97	95	650	405.	60	0.465E-02	20.86	0.74 LO	1.29	3.19	HI
169	95	97	300	500.	60	0.248E 00	2.81	0.47 LO	1.68	3.35	HI
170	70	76	300	900.	60	0.446E 00	-1.79	0.30 LO	1.31	1.46	
171	94	182	300	700.	65	0.299E 00	3.05	0.51 LO	2.37	3.38	HI
172	56	179	300	550.	65	0.235E 00	4.98	0.83	4.59	8.35	HI
173	63	62	300	780.	90	0.182E 00	3.66	0.61 LO	2.02	2.59	HI
174	57	54	1078	654.	125	0.164E-03	142.01	1.84	1.59	2.43	HI
175	17	16	750	745.	90	0.201E-02	82.32	2.20	7.09	9.52	HI
176	45	137	300	670.	100	0.129E 00	-1.81	0.30 LO	0.39	0.58	
177	183	101	750	650.	65	0.221E-02	-19.80	0.53 LO	0.81	1.24	
178	79	78	500	398.	105	0.582E-02	10.13	0.61 LO	0.42	1.07	
179	80	79	500	126.	105	0.184E-02	17.06	1.03	0.35	2.80	HI
180	181	75	400	750.	105	0.225E-01	7.01	0.66 LO	1.20	1.60	
181	180	75	400	550.	95	0.287E-01	5.83	0.55 LO	0.75	1.37	
182	78	77	400	150.	105	0.650E-02	8.72	0.82	0.36	2.39	HI
183	89	85	750	222.	65	0.110E-02	-6.47	0.17 LO	0.03	0.16	LO
184	80	84	750	374.	65	0.185E-02	17.29	0.46 LO	0.36	0.97	

PIPE NO	NODES FROM	NODES TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	--VEL-- CK	--HEADLOSS MT	--HEADLOSS MT/1000	--HEADLOSS CK
185	84	85	750	173.	65	0.878E-03	6.47	0.17	LO	0.03	0.16	LO
186	87	86	450	330.	60	0.227E-01	4.24	0.32	LO	0.34	1.04	
187	85	87	400	159.	105	0.609E-02	3.87	0.36	LO	0.08	0.52	
189	92	89	750	184.	65	0.908E-03	5.27	0.14	LO	0.02	0.11	LO
190	90	91	300	212.	60	0.105E 00	0.74	0.12	LO	0.06	0.28	LO
191	91	88	550	279.	60	0.722E-02	2.59	0.13	LO	0.04	0.15	LO
192	94	92	750	719.	60	0.411E-02	22.56	0.60	LO	1.32	1.84	
193	93	91	550	532.	60	0.138E-01	5.03	0.25	LO	0.27	0.52	
194	100	94	900	1069.	75	0.166E-02	48.04	0.89		2.16	2.02	HI
195	95	93	900	322.	65	0.654E-03	16.40	0.30	LO	0.12	0.36	LO
196	95	96	400	490.	60	0.599E-01	3.55	0.33	LO	0.63	1.28	
197	98	97	600	261.	60	0.442E-02	20.40	0.65		1.18	4.51	HI
198	78	86	400	180.	95	0.939E-02	-0.58	0.05	LO	0.00	0.02	LO
199	88	87	450	230.	60	0.158E-01	0.47	0.03	LO	0.00	0.02	LO
247	157	242	900	1300.	115	0.917E-03	53.22	0.99		1.44	1.11	
501	500	502	1300	357.	110	0.935E-05	125.02	0.58	LO	0.07	0.20	LO
502	500	504	2100	118.	120	0.124E-05	213.67	1.07		0.05	0.44	LO
504	504	502	2100	222.	120	0.234E-05	120.51	0.45	LO	0.02	0.09	LO
505	502	506	2100	120.	120	0.126E-05	36.17	0.12	LO	0.00	0.01	LO
506	501	506	1525	120.	105	0.768E-05	140.04	0.51		0.07	0.60	
4117	501	506	1625	120.	105	0.564E-05	165.50	0.94		0.07	0.60	
507	506	507	2100	10.	115	0.114E-06	479.08	1.63		0.01	1.05	
508	506	508	1986	30.	105	0.531E-06	469.76	1.79		0.05	1.57	
509	505	510	1200	1015.	110	0.192E-03	202.23	2.11		3.57	3.51	HI
510	510	509	300	150.	80	0.437E-01	10.62	1.78		2.47	23.13	HI
511	509	511	300	1620.	80	0.472E 00	2.65	0.48	LO	3.29	2.03	HI
512	509	511	300	1200.	65	0.513E 00	2.73	0.46	LO	3.29	2.74	HI
513	510	512	1200	979.	110	0.185E-03	176.28	1.86		2.67	2.73	HI
514	511	513	300	1000.	85	0.260E 00	0.54	0.09	LO	0.08	0.08	LO
515	512	542	1200	1600.	110	0.302E-03	159.12	1.66		3.61	2.25	HI
516	547	538	300	650.	105	0.114E 00	2.04	0.34	LO	0.43	0.66	
517	514	538	300	1100.	105	0.194E 00	5.26	0.88		4.19	3.81	HI
518	513	516	300	500.	80	0.146E 00	2.00	0.33	LO	0.53	1.05	
519	542	514	500	170.	105	0.249E-02	18.44	1.11		0.55	3.23	HI
520	517	516	300	150.	85	0.390E-01	2.08	0.35	LO	0.15	1.01	
521	517	518	300	460.	85	0.120E 00	13.58	2.27		15.00	32.61	HI
522	517	519	900	1033.	110	0.792E-03	112.59	2.09		4.98	4.82	HI
523	519	518	300	280.	85	0.729E-01	14.28	2.39		10.02	35.77	HI
524	517	520	300	700.	115	0.104E 00	12.51	2.09		11.20	16.00	HI
525	520	521	300	500.	115	0.744E-01	9.53	1.59		4.84	9.68	HI
526	545	522	300	650.	90	0.152E 00	2.75	0.46	LO	0.99	1.53	
527	523	544	300	775.	105	0.136E 00	1.38	0.23	LO	0.25	0.32	LO
528	543	523	300	775.	105	0.136E 00	1.23	0.22	LO	0.23	0.30	LO
529	525	524	627	555.	125	0.195E-02	47.86	2.60		4.81	8.67	HI
530	519	525	627	1255.	125	0.441E-02	50.62	1.94		6.32	5.04	HI
5930	519	525	600	1255.	130	0.505E-02	46.89	1.96		6.32	5.04	HI
540	526	552	300	450.	75	0.148E 00	0.41	0.07	LO	0.03	0.06	LO
541	542	517	1200	1101.	110	0.208E-04	136.59	1.43		0.19	1.70	
542	524	539	627	518.	125	0.182E-02	43.86	1.68		2.00	3.86	HI
544	539	527	627	966.	125	0.340E-02	34.17	1.31		2.35	2.43	HI

40 BLOCKS 2,3,...,880 (2015 PEAK HOUR - CASE 1) 07/04/95

PIPE NO	NODES FROM	TO	DIA MM	L MTRS	F-W C	K-VALUE	FLOW	--VEL-- MPS	CK	--HEADLOSS MT	MT/1000	CK
545	527	528	400	512.	95	0.322E-01	22.09	2.17		10.99	21.46	MI
546	528	529	400	290.	85	0.182E-01	16.37	1.54		3.29	11.35	MI
547	529	530	400	410.	85	0.263E-01	22.43	2.20		9.05	22.06	MI
548	529	531	400	800.	95	0.417E-01	-13.79	1.30		5.38	6.72	MI
549	532	530	400	800.	65	0.842E-01	0.54	0.05	LO	0.03	0.03	LO
550	522	531	400	964.	95	0.502E-01	20.23	1.91		13.31	13.80	MI
551	551	532	400	750.	60	0.917E-01	11.83	1.11		8.89	11.85	MI
552	535	533	400	800.	65	0.843E-01	14.52	1.37		11.95	14.94	MI
5552	535	533	300	800.	130	0.948E-01	13.62	2.28		11.95	14.94	MI
553	534	533	521	540.	95	0.779E-02	45.74	2.54		9.23	17.10	MI
554	535	534	600	257.	95	0.225E-02	45.74	1.91		2.72	10.56	MI
558	508	536	2148	2290.	130	0.186E-04	469.76	1.53		1.65	0.72	
559	535	545	300	1180.	105	0.208E 00	-8.41	1.41		10.71	9.07	MI
5559	535	545	300	1180.	130	0.140E 00	10.41	1.74		10.71	9.07	MI
560	535	548	400	750.	85	0.481E-01	3.73	0.35	LO	0.55	0.73	
561	514	537	300	900.	115	0.134E 00	5.86	0.98		3.54	3.94	MI
562	546	541	300	1100.	95	0.223E 00	5.16	0.86		4.86	4.42	MI
563	533	522	780	282.	85	0.695E-03	38.46	0.95		0.60	2.14	MI
571	516	542	300	10.	85	0.260E-02	-4.08	0.68	LO	0.04	3.52	MI
572	524	543	300	700.	105	0.123E 00	4.05	0.68	LO	1.64	2.34	MI
573	522	544	300	700.	105	0.123E 00	-4.09	0.68	LO	1.67	2.39	MI
574	541	545	300	600.	105	0.106E 00	-8.28	1.38		5.29	8.82	MI
575	510	546	300	1100.	85	0.286E 00	10.20	1.71		21.11	19.19	MI
576	512	547	300	800.	115	0.119E 00	9.65	1.61		7.92	9.90	MI
577	537	548	300	650.	95	0.138E 00	1.07	0.18	LO	0.16	0.24	LO
578	521	549	300	600.	105	0.106E 00	3.29	0.57	LO	1.01	1.69	
579	533	551	400	550.	65	0.580E-01	23.10	2.17		19.41	35.30	MI
580	525	526	300	700.	85	0.182E 00	9.70	1.62		12.24	17.49	MI
600	600	601	300	1000.	130	0.119E 00	-3.46	0.58	LO	1.18	1.18	
602	602	641	400	680.	115	0.245E-01	21.76	2.05		7.47	10.99	MI
603	602	634	600	900.	120	0.422E-02	41.97	1.75		4.28	4.76	MI
604	607	603	600	500.	120	0.235E-02	-22.50	0.94		0.75	1.50	
4061	607	603	900	500.	135	0.262E-03	-72.52	1.37		0.75	1.50	
610	609	610	1525	1080.	115	0.584E-04	243.56	1.58		1.54	1.42	
611	609	616	1525	2030.	115	0.110E-03	204.96	1.33		2.10	1.03	
616	610	616	1525	950.	115	0.514E-04	151.60	0.98		0.56	0.59	
617	616	5619	2640	144.	100	0.697E-06	611.65	1.32		0.10	0.70	
620	620	621	1200	237.	110	0.636E-04	155.26	1.62		0.73	2.15	MI
4120	620	621	1200	237.	135	0.435E-04	150.54	1.59		0.73	2.15	MI
621	621	622	1200	730.	110	0.139E-03	127.30	1.33		1.09	1.49	
622	622	602	600	890.	110	0.491E-02	26.76	1.12		2.16	2.43	MI
4062	622	602	750	890.	130	0.122E-02	56.88	1.52		2.16	2.43	MI
623	621	623	500	800.	100	0.128E-01	20.78	1.25		3.53	4.41	MI
5623	621	623	900	800.	135	0.420E-03	131.63	2.45		3.53	4.41	MI
624	623	624	300	750.	105	0.132E 00	15.69	2.62		21.62	28.83	MI
625	625	644	300	850.	105	0.150E 00	-4.65	0.81		2.79	3.28	MI
626	626	645	300	700.	75	0.230E 00	6.28	1.05		6.89	9.85	MI
627	627	626	300	1100.	115	0.164E 00	12.98	2.17		18.85	17.13	MI
628	621	627	400	450.	115	0.165E-01	10.04	0.94		1.18	2.62	MI
5628	621	627	600	450.	130	0.102E-02	32.97	1.38		1.18	2.62	MI

PIPE NO	NODES FROM	NODES TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	--CK	--HEADLOSS MT	MT/1000	CK
629	5619	630	1350	140.	90	0.216E-04	198.04	1.64		0.39	2.76	HI
630	5619	630	1890	224.	100	0.552E-05	413.41	1.74		0.39	1.73	
631	630	107	1676	2290.	100	0.101E-03	252.72	1.36		2.87	1.25	
4124	630	107	1200	2290.	135	0.259E-03	142.27	1.49		2.87	1.25	
632	536	609	1986	1286.	115	0.192E-04	469.76	1.75		1.70	1.33	
633	507	616	2100	5670.	120	0.597E-04	479.08	1.63		5.49	0.97	
634	603	600	300	770.	105	0.126E 00	9.69	1.62		9.08	11.79	HI
635	623	603	300	1300.	105	0.229E 00	4.71	0.79	LO	4.04	3.10	HI
4064	623	603	900	1300.	135	0.682E-03	108.93	2.02		4.04	3.10	HI
636	630	112	1500	1250.	110	0.796E-04	215.66	1.44		1.67	1.34	
637	634	603	600	600.	120	0.282E-02	3.62	0.15	LO	0.03	0.05	LC
640	535	600	300	1400.	80	0.408E 00	4.50	0.75	LO	6.59	4.71	HI
641	627	633	450	950.	125	0.145E-01	25.22	1.76		5.71	6.01	HI
642	642	601	300	800.	105	0.141E 00	-2.61	0.47	LO	0.95	1.19	
643	641	642	300	750.	105	0.132E 00	7.64	1.28		5.70	7.59	HI
644	607	535	900	550.	85	0.675E-03	69.25	1.29		1.74	3.16	HI
4144	607	535	600	550.	130	0.222E-02	36.46	1.52		1.74	3.16	HI
645	624	644	300	700.	105	0.123E 00	-1.61	0.27	LO	0.30	0.43	LC
646	645	625	300	700.	75	0.230E 00	-1.85	0.31	LO	0.72	1.02	
700	708	726	300	800.	105	0.141E 00	-1.85	0.31	LO	0.44	0.55	
701	700	703	250	1100.	100	0.515E 00	3.75	0.90		5.95	5.41	HI
703	726	742	300	1100.	105	0.194E 00	-3.25	0.54	LO	1.72	1.56	
704	728	730	300	750.	90	0.176E 00	-5.62	0.97		4.57	6.10	HI
705	705	708	300	900.	130	0.167E 00	5.58	0.93		2.57	2.86	HI
706	712	720	500	259.	90	0.504E-02	10.18	0.61	LO	0.37	1.43	
707	742	725	300	1300.	105	0.225E 00	-0.90	0.15	LO	0.19	0.14	LO
708	720	730	500	929.	105	0.136E-01	10.18	0.61	LO	1.00	1.07	
709	722	712	626	256.	125	0.907E-03	-28.59	1.11		0.46	1.81	
711	109	713	250	1700.	70	0.154E 01	-1.01	0.24	LO	1.58	0.93	
712	722	724	600	50.	100	0.225E-03	24.24	1.02		0.12	2.43	HI
713	711	713	400	250.	70	0.230E-01	17.23	0.68	LO	0.90	3.59	HI
714	724	730	600	1000.	105	0.602E-02	13.86	0.58	LO	0.78	0.78	
715	714	712	600	400.	105	0.241E-02	-16.16	0.68	LO	0.42	1.04	
716	714	716	600	600.	105	0.361E-02	6.71	0.28	LO	0.12	0.20	LC
717	716	717	500	150.	105	0.215E-02	-2.95	0.18	LO	0.02	0.11	LC
718	717	718	500	800.	105	0.117E-01	0.07	0.00	LO	0.00	0.00	LC
719	719	721	500	900.	105	0.132E-01	-4.26	0.26	LO	0.09	0.21	LO
721	729	721	400	200.	105	0.867E-02	7.27	0.68	LO	0.34	1.71	
722	741	748	400	750.	125	0.235E-01	13.95	1.31		3.10	4.14	HI
723	729	1021	500	200.	105	0.292E-02	-7.27	0.44	LO	0.12	0.58	
724	717	732	300	1000.	80	0.291E 00	3.01	0.50	LO	2.24	2.24	HI
726	730	734	648	500.	115	0.175E-02	8.36	0.30	LO	0.09	0.18	LC
732	704	747	913	1000.	100	0.852E-03	-50.49	0.51		1.22	1.22	
734	704	700	913	1000.	100	0.853E-03	22.73	0.41	LO	0.28	0.28	LC
735	747	712	750	500.	115	0.858E-03	62.51	1.67		1.82	3.63	HI
737	700	622	913	1200.	100	0.102E-02	-10.93	0.20	LO	0.09	0.07	LC
742	704	8008	500	400.	90	0.778E-02	-8.59	0.52	LO	0.42	1.04	
743	740	741	400	500.	80	0.355E-01	-10.28	0.97		2.68	5.37	HI
744	108	705	469	600.	115	0.101E-01	11.67	0.80	LO	0.96	1.60	
500	502	506	816	2730.	125	0.266E-02	53.69	1.21		4.25	1.56	

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BLOCKS 2,3,4,5&6 (2015 PEAK FLOW - CASE 1) 07/04/95

PIPE NO	NODES FROM	NODES TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	--CK	--HEADLOSS MT	MT/1000	CK
901	906	908	816	600.	125	0.5835E-03	28.13	0.64	LO	0.28	0.47	LO
904	908	912	600	750.	110	0.4144E-02	15.71	0.66	LO	0.68	0.91	
906	912	914	600	1100.	110	0.6073E-02	10.09	0.42	LO	0.44	0.40	LO
1000	914	1002	2000	1627.	125	0.2015E-04	483.39	1.82		1.88	1.16	
1002	1002	1004	2000	1960.	125	0.2433E-04	472.52	1.78		2.17	1.11	
1005	1004	916	600	1750.	130	0.7095E-02	46.30	2.02		9.31	5.32	HI
1006	1006	1004	750	500.	130	0.6832E-03	70.35	1.88		1.80	3.60	HI
1008	1008	1006	2200	110.	130	0.7966E-06	461.02	1.43		0.07	0.62	
1016	1006	1016	2200	1325.	130	0.9559E-05	379.23	1.18		0.57	0.43	LO
2018	6030	1016	2100	1345.	130	0.1222E-04	-230.72	0.79	LO	0.29	0.22	LO
1103	412	187	1200	874.	125	0.1306E-03	246.23	2.57		3.49	4.00	HI
1105	11	8	500	1200.	120	0.1317E-01	12.20	0.73	LO	1.41	1.17	
1107	158	7	3000	958.	135	0.1423E-05	1642.51	2.75		1.29	1.34	
1108	135	6	1500	1601.	125	0.8025E-04	226.73	1.58		2.01	1.25	
1109	7	135	1500	500.	125	0.2518E-04	271.38	1.82		0.81	1.61	
1110	138	10	450	623.	120	-0.1158E-01	-16.45	1.22		2.12	3.41	HI
1111	12	160	900	750.	125	0.4546E-03	102.05	1.90		2.38	3.17	HI
1112	13	12	900	750.	125	0.4546E-03	120.42	2.24		3.23	4.31	HI
1113	159	13	1050	1540.	125	-0.4406E-03	-171.77	-2.34		6.05	3.93	HI
1114	188	187	1200	592.	125	0.8826E-04	205.24	2.15		1.69	2.85	HI
1115	161	14	600	760.	120	0.3577E-02	4.45	0.19	LO	0.06	0.07	LO
1116	21	189	600	1000.	125	0.4366E-02	46.47	1.94		5.33	5.32	HI
1117	190	28	600	700.	125	0.3055E-02	1.18	0.05	LO	0.00	0.01	LO
1120	7	20	2300	700.	135	0.1466E-05	1261.31	2.61		0.93	1.33	
1121	187	188	1200	414.	125	0.6178E-04	222.61	2.33		1.37	3.31	HI
1122	21	116	600	550.	120	0.4466E-02	-35.09	1.47		3.24	3.42	HI
5031	21	116	750	950.	130	0.1306E-02	-68.37	1.83		3.24	3.42	HI
1125	25	113	500	13074.	120	0.1495E-01	-172.24	0.74	LO	1.54	1.18	
1127	27	29	600	824.	120	0.3867E-02	44.07	1.84		4.29	5.21	HI
1128	185	190	600	750.	125	0.3278E-02	29.19	1.22		1.69	2.25	HI
1129	28	29	500	2060.	120	0.2335E-01	-20.28	1.22		6.19	3.01	HI
1130	162	14	450	1150.	120	0.2195E-01	19.27	1.43		5.26	4.57	HI
1131	31	168	2200	576.	130	0.4176E-05	677.54	2.11		0.73	1.27	
4121	31	168	1200	576.	135	0.7446E-04	142.58	1.45		0.73	1.27	
1132	32	31	2600	950.	130	0.3055E-05	1014.28	2.26		1.12	1.18	
1133	6120	6122	750	2045.	125	0.3016E-02	49.01	1.31		4.05	1.98	
1134	163	33	600	800.	125	0.3465E-02	-20.72	0.87		0.95	1.19	
1136	11	10	750	800.	125	0.1186E-02	-57.77	1.55		2.15	2.69	HI
1144	2	6150	300	800.	120	0.1100E 00	0.0	0.0	LO	0.0	0.0	LO
1145	6000	2	300	700.	125	0.8928E-01	10.22	1.71		6.60	9.42	HI
1146	182	62	600	800.	120	0.9148E-02	-26.30	1.58		3.89	4.87	HI
1148	137	132	2200	550.	130	0.3958E-05	744.10	2.31		0.83	1.50	
1150	136	137	2200	700.	130	0.5037E-05	633.97	1.97		0.78	1.12	
4126	136	137	1200	700.	135	0.5044E-04	133.70	1.40		0.78	1.12	
1153	128	32	2600	1450.	130	0.4658E-05	1057.24	2.35		1.85	1.28	
1154	22	128	2600	248.	130	0.7958E-06	1057.24	2.35		0.32	1.28	
1160	168	136	2200	550.	130	0.3958E-05	651.66	2.03		0.65	1.18	
4127	168	136	1200	550.	135	0.7118E-04	137.47	1.44		0.65	1.18	
1161	8006	30	600	600.	120	0.2828E-02	0.0	0.0	LO	0.0	0.0	LO
1162	30	162	450	850.	120	0.1628E-01	22.56	2.42		10.26	12.07	HI

PIPE NO	NODES FROM	NODES TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	--VEL-- CK	--HEADLOSS MT	--HEADLOSS MT/1000	--HEADLOSS CK
1163	10	161	600	850.	120	0.395E-02	24.87	1.04		1.54	1.81	
1164	160	11	750	700.	125	0.103E-02	69.82	2.43		4.26	6.09	HI
1165	6	159	1050	818.	125	0.234E-03	164.01	2.51		3.65	4.46	HI
1166	411	158	3000	1916.	135	0.205E-05	1659.78	2.78		2.62	1.37	
1195	117	116	1050	1250.	125	0.357E-03	188.07	2.57		5.81	4.65	HI
1566	518	553	300	650.	125	0.825E-01	8.60	1.47		4.65	7.15	HI
5566	518	553	300	650.	130	0.772E-01	9.15	1.53		4.65	7.15	HI
1567	553	552	300	500.	120	0.687E-01	8.89	1.49		3.93	7.85	HI
1628	620	628	600	400.	120	0.188E-02	15.95	0.67	LO	0.32	0.79	
1627	632	636	300	450.	120	0.610E-01	8.66	1.45		3.37	7.49	HI
1638	631	635	200	300.	120	0.297E 00	3.34	1.26		2.77	9.24	HI
1639	627	628	400	300.	125	0.942E-02	-15.95	1.50		1.59	5.30	HI
1641	634	601	400	950.	125	0.298E-01	20.39	1.92		7.93	8.35	HI
1642	620	644	300	1800.	120	0.247E 00	12.24	2.05		25.57	14.21	HI
1643	635	636	300	1800.	120	0.247E 00	-1.14	0.19	LO	0.31	0.17	LC
1701	702	701	300	1050.	125	0.134E 00	-1.87	0.31	LO	0.43	0.41	LC
1702	702	703	300	250.	125	0.315E-01	-3.75	0.63	LO	0.37	1.47	
1712	747	727	600	1000.	125	0.426E-02	45.68	1.91		5.16	5.16	HI
1725	713	725	400	1130.	120	0.383E-01	4.05	0.38	LO	0.51	0.45	LC
1727	727	746	600	180.	120	0.846E-03	29.98	1.25		0.46	2.55	HI
1730	701	6015	400	1000.	125	0.314E-01	-8.60	0.81		1.69	1.69	
1732	746	728	400	1994.	125	0.626E-01	-6.73	0.63	LO	2.14	1.07	
1734	693	701	400	1130.	125	0.355E-01	2.39	0.22	LO	0.18	0.16	LC
1900	5502	907	2200	2700.	130	0.195E-04	565.97	1.76		2.45	0.91	
1902	906	904	300	1250.	120	0.172E 00	9.48	1.59		11.07	8.86	HI
1903	909	914	2000	480.	125	0.594E-05	496.94	1.87		0.58	1.22	
1904	910	909	2000	666.	125	0.824E-05	502.55	1.89		0.83	1.24	
1906	907	910	2200	2000.	130	0.145E-04	542.23	1.69		1.67	0.84	
2015	66	173	600	620.	115	0.215E-02	21.47	0.90		0.92	1.49	
2016	715	818	1800	460.	130	0.885E-05	2044.45	0.95		0.17	0.37	LC
2017	8007	8008	300	800.	115	0.119E 00	-3.49	0.58	LO	1.20	1.50	
2018	8007	741	250	430.	115	0.155E 00	-3.49	0.84		1.57	3.65	HI
2019	8008	740	500	350.	115	0.432E-02	-5.10	0.31	LO	0.09	0.25	LO
2023	506	906	400	2730.	115	0.100E 00	-7.57	0.71	LO	4.25	1.56	
4109	109	5711	750	1100.	125	0.162E-02	20.17	0.54	LO	0.42	0.38	LC
4400	400	6090	3000	2000.	130	0.320E-05	1455.99	2.51		2.43	1.22	
4401	404	6085	3000	1500.	130	0.240E-05	1455.99	2.51		1.82	1.22	
4411	412	411	3000	555.	135	0.827E-06	1659.78	2.78		0.76	1.37	
4412	6085	412	3000	2738.	135	0.408E-05	1924.78	3.22	HI	4.93	1.80	
4505	502	5502	1800	407.	120	0.908E-05	165.68	0.77	LO	0.12	0.29	LC
4618	616	5618	1500	124.	90	0.114E-04	224.00	1.50		0.26	2.08	HI
4711	5711	711	600	550.	125	0.240E-02	12.50	0.52	LO	0.26	0.47	LC
4719	718	8509	500	700.	122	0.775E-02	0.0	0.0	LO	0.0	0.0	LC
4726	5711	726	600	700.	125	0.305E-02	7.66	0.32	LO	0.13	0.19	LC
7000	4746	4745	1050	1400.	125	0.400E-03	44.22	0.60	LO	0.45	0.32	LC
7700	1016	4746	1050	400.	125	0.114E-03	137.01	1.87		1.03	2.58	HI
4040	4746	4745	1350	1400.	135	0.102E-03	52.69	0.77	LO	0.45	0.32	LC
7001	741	747	1200	600.	125	0.134E-03	178.18	1.86		1.97	2.19	HI
7002	745	741	1200	150.	125	0.223E-04	216.79	2.27		0.47	3.15	HI
7004	748	717	400	500.	125	0.157E-01	10.45	0.98		1.21	2.42	HI

BLOCKS 2,3,4,5&6 L2015 PEAK HOUR - CASE 1)

07/04/95

PIPE NO	NODES FROM-TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS--CK	--HEADLOSS MT	MT/1000	CK
7005	31 6122	1050	330.	125	0.943E-04	144.45	1.97	0.94	2.85	HI
7008	5804 16	666	200.	95	0.871E-03	-27.49	1.27	0.72	3.58	HI
7015	6015 746	600	330.	125	0.144E-02	-8.60	0.35 LO	0.08	0.23	LC
7040	6030 1021	1350	276.	125	0.222E-04	27.59	0.23 LO	0.01	0.04	LC
7045	6030 719	1800	1700.	125	0.352E-04	203.14	0.94	0.66	0.39	LC
7060	132 47	2200	430.	130	0.311E-05	728.58	2.27	0.62	1.45	
8000	40 6000	1050	630.	85	0.267E-03	80.71	1.10	1.25	1.98	
9000	47 66	2200	1300.	130	0.941E-05	681.78	2.12	1.66	1.28	
9010	66 65	2200	700.	130	0.507E-05	605.03	1.89	0.72	1.03	
9015	65 181	2200	1300.	130	0.941E-05	551.61	1.84	1.28	0.98	
9020	181 200	2200	850.	130	0.615E-05	570.55	1.77	0.78	0.92	
9036	6120 30	750	50.	125	0.735E-04	49.01	1.31	0.10	1.98	
1350	254 260	300	925.	130	0.116E 00	12.75	2.13	12.22	13.21	HI
1351	13 5804	600	1720.	130	0.697E-02	35.12	1.64	6.19	3.60	HI
1352	17 6122	750	700.	130	-0.557E-03	-55.44	2.55	4.43	6.34	HI
4502	5502 506	1800	98.	135	-0.176E-05	-400.20	1.86	0.12	1.18	
259	278 277	300	750.	85	-0.195E 00	11.27	1.59	17.61	23.48	HI
260	258 270	600	1075.	120	0.505E-02	50.49	2.11	7.20	6.70	HI
5260	258 270	600	1075.	130	0.436E-02	54.70	2.29	7.20	6.70	HI
261	255 259	400	750.	60	-0.917E-01	-3.54	0.33 LO	0.95	1.27	
262	5264 274	600	150.	90	0.120E-02	11.43	0.43 LO	0.11	0.72	
263	259 274	400	750.	105	-0.325E-01	-11.93	1.12	3.20	4.27	HI
264	262 269	400	1500.	75	-0.121E 00	2.73	0.26 LO	0.78	0.52	
4262	264 5264	600	750.	125	-0.327E-02	5.72	0.24 LO	0.08	0.11	LC
265	274 272	500	287.	90	0.558E-02	-0.90	0.54 LO	0.32	1.11	
266	270 282	600	700.	120	-0.329E-02	30.28	1.27	1.82	2.60	HI
5266	270 282	600	700.	130	-0.284E-02	32.80	1.37	1.82	2.60	HI
267	257 264	600	800.	80	-0.797E-02	30.42	1.27	4.44	5.56	HI
268	272 284	500	560.	105	-0.815E-02	17.19	1.03	1.59	2.84	HI
269	270 272	600	400.	105	0.241E-02	28.75	1.20	1.21	3.02	HI
270	269 293	400	900.	75	0.729E-01	1.70	0.16 LO	0.19	0.22	LC
272	282 280	500	370.	105	-0.541E-02	40.49	2.44	5.12	13.85	HI
273	290 283	400	130.	115	0.476E-02	31.93	3.00 HI	2.91	22.35	HI
274	284 282	500	332.	105	-0.485E-02	-17.55	1.06	0.98	2.95	HI
275	283 285	400	850.	105	-0.368E-01	14.24	1.34	5.04	5.93	HI
276	286 284	400	250.	105	-0.108E-01	-31.38	2.95	6.40	25.62	HI
278	288 286	1532	250.	125	-0.113E-04	334.20	2.14	0.54	2.14	HI
279	282 299	400	1100.	75	-0.885E-01	9.15	0.86	5.36	4.87	HI
280	289 288	1773	600.	108	-0.175E-04	355.28	1.72	0.94	1.57	
281	290 289	1773	250.	108	-0.725E-05	291.86	1.63	0.46	1.85	
282	291 290	1773	450.	108	0.131E-04	405.83	1.94	0.89	1.97	
283	292 291	1773	300.	108	-0.875E-05	405.83	1.94	0.59	1.97	
284	292 294	1144	350.	108	-0.862E-04	0.57	0.01 LO	0.00	0.00	LC
4032	292 294	1200	350.	135	0.452E-04	1.27	0.01 LO	0.00	0.00	LC
285	281 301	300	600.	65	0.257E 00	3.98	0.67 LO	3.31	5.52	HI
5285	281 301	600	600.	130	0.242E-02	49.26	2.06	3.31	5.52	HI
288	830 296	1095	600.	128	0.134E-03	1.17	0.01 LO	0.00	0.00	LC
300	297 300	1095	1100.	128	0.245E-03	54.91	1.19	1.12	1.02	
7826	297 300	1200	1100.	135	0.142E-03	127.36	1.33	1.12	1.02	
301	285 301	250	450.	75	0.295E 00	0.60	0.15 LO	0.14	0.31	LC

PIPE NO	NODES FROM	TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	CK	--HEADLOSS MT	MT/1000	CK	
302	300	302	535	1000.	125	0.742E-02	18.93	1.00		1.76	1.76		
7827	300	302	1200	1000.	135	0.129E-03	171.08	1.79		1.76	1.76		
303	299	301	400	900.	75	0.728E-01	4.13	0.39	LO	1.00	1.12		
824	824	278	300	550.	85	0.142E 00	3.13	0.52	LO	1.18	2.15	HI	
5824	824	278	600	550.	130	0.223E-02	29.60	1.24		1.18	2.15	HI	
826	824	826	300	1600.	125	0.204E 00	3.48	0.58	LO	2.06	1.28		
828	824	828	1112	160.	125	0.345E-04	22.38	0.27	LO	0.01	0.07	LO	
830	828	830	1095	180.	128	0.401E-04	19.49	0.18	LO	0.01	0.03	LO	
1217	265	264	400	650.	125	0.204E-01	-10.61	1.00		1.62	2.49	HI	
1219	266	265	300	400.	125	0.510E-01	-6.55	1.10		1.66	4.14	HI	
1222	260	266	2000	800.	130	0.521E-05	452.14	1.70		0.76	0.95		
1223	266	269	600	300.	125	0.131E-02	18.72	0.78	LO	0.30	0.99		
1224	266	267	2000	650.	130	0.748E-05	434.89	1.64		0.58	0.88		
1225	267	292	2000	650.	125	0.805E-05	424.92	1.60		0.59	0.91		
1226	287	295	1500	332.	125	0.167E-04	273.27	1.83		0.54	1.64		
1227	265	276	400	200.	120	0.677E-02	-10.54	0.59		0.53	2.65	HI	
1228	286	287	1500	316.	125	0.155E-04	343.76	2.30		0.79	2.50	HI	
1229	295	283	400	350.	130	0.102E-01	-5.69	0.51		0.69	1.96		
1231	287	281	260	300.	65	0.259E 00	2.60	0.62	LO	1.73	5.77	HI	
5231	287	281	600	300.	130	0.122E-02	50.44	2.11		1.73	5.77	HI	
1301	285	301	600	400.	120	0.188E-02	10.28	0.43	LO	0.14	0.35	LO	
1302	297	305	1050	2100.	125	0.555E-03	97.24	1.33		2.88	1.37		
1305	305	302	1050	800.	125	0.228E-03	8.49	0.12	LO	0.01	0.01	LO	
4262	264	5264	600	750.	125	0.227E-02	5.72	0.24	LO	0.08	0.11	LO	
1819	818	816	1200	600.	130	0.831E-04	51.23	0.54	LO	0.12	0.20	LO	
5004	402	506	2800	8000.	140	0.156E-04	1015.00	1.95		5.76	0.72		
1316	314	312	750	750.	125	0.116E-02	38.63	1.03		0.96	1.28		
308	306	308	400	1500.	110	0.557E-01	0.58	0.05	LO	0.02	0.01	LO	
7830	306	308	1200	1500.	1350	0.273E-05	128.31	1.34		0.02	0.01	LO	
310	308	310	400	600.	110	0.235E-01	2.88	0.27	LO	0.17	0.28	LO	
7831	308	310	1200	600.	135	0.775E-04	63.46	0.66	LO	0.17	0.28	LO	
1312	311	314	900	2100.	125	0.127E-02	38.63	0.72	LO	1.10	0.53		
1314	310	312	500	1450.	120	0.166E-01	4.81	0.29	LO	0.30	0.21	LO	
7832	310	312	1200	1450.	135	0.187E-03	54.15	0.57	LO	0.30	0.21	LO	
1311	305	306	600	1000.	115	0.506E-02	29.12	1.22		2.62	2.62	HI	
3033	306	2082	450	1670.	130	0.275E-01	17.10	1.27		5.27	3.16	HI	
7834	306	2082	600	1670.	130	0.677E-02	36.43	1.52		5.27	3.16	HI	
3032	2082	2081	300	830.	130	0.584E-01	4.04	0.68	LO	1.30	1.57		
7835	2082	2081	600	830.	130	0.326E-02	24.59	1.04		1.30	1.57		
1310	305	311	900	2000.	125	0.121E-02	38.63	0.72	LO	1.05	0.53		
1303	305	307	1050	1750.	125	0.506E-03	88.75	1.21		2.02	1.16		
304	302	304	500	1500.	105	0.219E-01	13.16	0.29	LO	2.59	1.73		
7828	302	304	1200	1500.	135	0.194E-03	169.18	1.77		2.59	1.73		
1308	307	309	1050	1100.	125	0.314E-03	88.75	1.21		1.27	1.16		
306	304	306	400	2000.	110	0.795E-01	7.48	0.70	LO	3.31	1.65		
7829	304	306	1200	2000.	135	0.258E-03	169.18	1.73		3.31	1.65		
4206	277	276	300	0.	0	0.137E-03	0.42	0.0	LO	24.00	0.0	LO	
4000	124	126	750	0.	0	0.350E-06	-29.99	0.0	LO	0.00	0.0	LO	
4007	81	82	900	0.	0	0.165E-06	49.70	0.0	LO	0.00	0.0	LO	
4804	6090	404	3000	0.	0	0.137E-08	1499.99	0.0	LO	0.00	0.0	LO	

46 BLOCKS 2,3,4,5&6 (2015 PEAK HOUR - CASE 1) 07/04/95

PIPE NO	NODES FROM-TO	DIA MM	L MTRS	H-W C	K-VALUE	FLOW	--VEL-- MPS	--CK	--HEADLOSS MT	MT/1000	CK
4806	818 815	1200	0.	0	0.534E-07	153.12	0.0	LO	0.00	0.0	LO
4807	27 25	1050	0.	0	0.911E-07	10.82	0.0	LO	0.00	0.0	LO
5000	252 258	100	0.	0	0.111E 05	0.03	0.0	LO	9.46	0.0	LO
5001	255 259	100	0.	0	0.111E 05	-0.01	0.0	LO	0.95	0.0	LO
5002	257 264	100	0.	0	0.111E 05	0.02	0.0	LO	4.44	0.0	LO
5004	260 266	100	0.	0	0.111E 05	0.01	0.0	LO	0.77	0.0	LO
5005	262 269	100	0.	0	0.111E 05	0.01	0.0	LO	0.78	0.0	LO
5006	822 824	100	0.	0	0.111E 05	0.00	0.0	LO	0.08	0.0	LO
5007	718 719	100	0.	0	0.111E 05	0.07	0.0	LO	47.69	0.0	LO
5208	295 297	0	0.	0	0.274E-04	279.51	0.0	LO	15.39	0.0	LO
502	504 505	0	0.	0	0.404E-07	143.15	0.0	LO	41.88	0.0	LO
645	609 607	0	0.	0	0.871E-11	21.24	0.0	LO	32.50	0.0	LO
5204	243 2043	0	0.	0	0.195E-02	113.65	0.0	LO	27.48	0.0	LO
5802	738 5800	0	0.	0	0.541E-02	126.21	0.0	LO	40.11	0.0	LO
5804	816 815	0	0.	0	0.197E-02	101.29	0.0	LO	32.18	0.0	LO

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SCM---CK	PRESSURE PCT DROP---CK	
2	12.0	10.22	43.22U	31.22	3.12	48.81	HI
3	11.0	15.35	51.90U	40.90	4.09	34.03	HI
6	26.0	38.71	52.60U	26.60	2.66	42.41	HI
7	30.0	9.82	55.41U	25.41	2.54	40.91	HI
8	11.5	12.23	31.61U	20.11	2.01	67.30	HI
10	11.5	16.45	30.87U	19.37	1.94	68.51	HI
11	12.0	19.84	33.02U	21.02	2.10	65.54	HI
12	12.0	18.37	39.66U	27.66	2.77	54.65	HI
13	13.0	12.23	42.90U	29.90	2.99	50.17	HI
14	12.0	21.86	29.28U	17.28	1.73	71.68	HI
15	12.0	24.46	29.12U	17.12	1.71	71.94	HI
16	18.0	44.83	37.42U	19.42	1.94	64.69	HI
17	22.0	59.13	44.51U	22.51	2.25	55.87	HI
18	26.0	29.10	52.38U	26.38	2.64	43.88	HI
19	28.0	24.46	47.99U	19.99	2.00	55.58	HI
20	30.0	48.26	54.48U	24.48	2.45	43.07	HI
21	26.0	57.00	44.47U	18.47	1.85	60.71	HI
22	32.0	49.80	53.18U	21.18	2.12	48.35	HI
25	20.0	11.69	47.93U	27.93	2.79	47.30	HI
27	20.0	15.80	47.93U	27.93	2.79	47.30	HI
28	22.0	21.45	37.45U	15.45	1.54	69.71	HI
29	20.0	11.55	43.64U	23.64	2.36	55.40	HI
30	12.0	16.45	44.79U	32.79	2.28	46.25	HI
31	20.0	48.91	49.88U	29.88	2.99	43.61	HI
32	25.0	39.13	51.01U	26.01	2.60	45.82	HI
33	11.0	8.40	40.41U	29.41	2.94	52.56	HI
35	15.0	8.08	47.64U	32.64	3.26	43.73	HI
36	30.0	33.79	51.86U	21.86	2.19	49.15	HI
37	26.0	17.64	51.28U	25.28	2.53	46.20	HI
38	24.0	0.0	51.20U	27.20	2.72	44.48	HI
39	22.0	56.70	51.17U	29.17	2.92	42.80	HI
40	20.0	8.87	51.07U	31.07	3.11	41.37	HI
41	12.0	8.40	40.19U	28.19	2.82	53.79	HI
42	13.0	8.40	42.02U	29.02	2.90	51.64	HI
43	12.0	8.40	41.94U	29.94	2.99	50.93	HI
45	12.0	11.18	47.34U	35.34	3.53	42.07	HI
46	13.0	8.40	42.81U	29.81	2.98	50.32	HI
47	12.0	12.98	46.28U	34.28	3.43	43.81	HI
48	12.0	8.40	46.14U	34.14	3.41	44.03	HI
49	12.0	8.40	46.34U	34.34	3.43	43.70	HI
50	12.0	8.40	47.38U	35.38	3.54	42.00	HI
51	12.0	10.60	48.48U	36.48	3.65	40.19	HI
52	12.0	8.75	45.48U	33.48	3.35	45.12	HI
53	12.0	8.40	44.66U	32.66	3.27	46.47	HI
54	13.0	12.49	56.69U	43.69	4.37	27.19	HI
55	12.0	10.95	53.56U	41.56	4.16	31.86	HI
56	12.0	11.88	40.54U	28.54	2.85	53.22	HI
57	13.0	9.99	58.28U	45.28	4.53	24.54	HI
58	12.0	17.50	47.28U	35.28	3.53	42.17	HI
59	17.0	12.55	47.93U	30.93	3.09	44.77	HI

48 BLOCKS 2,3,4,5PC (2015 PEAK HOUR - CASE 1)

07/24/95

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SCM---CK	PRESSURE PCT DROP---CK
60	12.0	-152.00	62.12U	50.12	5.01	17.84 HI
61	20.0	21.00	48.61U	28.61	2.86	46.01 HI
62	12.0	10.48	45.91U	33.91	3.29	45.16 HI
63	16.0	16.85	47.92U	31.92	3.19	43.99 HI
64	20.0	12.49	47.94U	27.94	2.79	47.29 HI
65	12.0	5.58	43.90U	31.90	3.19	47.71 HI
66	12.0	8.40	44.61U	32.61	3.26	46.54 HI
67	12.0	11.18	43.76U	31.76	3.18	47.93 HI
68	12.0	5.58	42.71U	30.71	2.07	49.66 HI
69	12.0	8.40	41.59U	29.59	2.96	51.50 HI
70	12.0	12.87	40.86U	28.86	2.89	52.69 HI
71	12.0	0.0	43.16U	31.16	3.12	48.92 HI
72	12.0	11.18	43.50U	31.50	3.15	48.36 HI
73	12.0	3.76	43.40U	31.40	3.14	48.53 HI
74	12.0	3.76	42.47U	30.47	3.05	50.04 HI
75	12.0	12.84	41.42U	29.42	2.94	51.77 HI
76	12.0	7.24	42.17U	30.17	3.02	50.54 HI
77	12.0	3.76	42.33U	30.33	3.03	50.28 HI
78	12.0	1.99	42.69U	30.69	3.07	49.69 HI
79	12.0	4.93	43.11U	31.11	3.11	49.00 HI
80	12.0	10.60	43.47U	31.47	3.15	48.42 HI
81	12.0	76.00	43.57U	31.57	3.16	48.25 HI
82	12.0	1.84	43.57U	31.57	3.16	48.25 HI
83	12.0	5.34	43.12U	31.12	3.11	48.98 HI
84	13.0	11.95	43.10U	30.10	3.01	49.83 HI
85	13.0	0.0	43.08U	30.08	3.01	49.87 HI
86	12.0	3.76	42.69U	30.69	3.07	49.69 HI
87	12.0	0.0	43.04U	31.04	3.10	49.12 HI
88	13.0	2.12	43.04U	30.04	3.00	49.93 HI
89	13.0	12.53	43.04U	30.04	3.00	49.93 HI
90	13.0	2.12	43.14U	30.14	3.01	49.76 HI
91	12.0	3.18	43.08U	31.08	3.11	49.05 HI
92	13.0	17.29	43.06U	30.06	3.01	49.90 HI
93	13.0	5.76	43.36U	30.36	3.04	49.40 HI
94	13.0	17.38	44.38U	31.38	3.14	47.70 HI
95	13.0	5.95	43.47U	30.47	3.05	49.21 HI
96	12.0	3.55	42.85U	30.85	3.08	49.43 HI
97	13.0	2.34	44.76U	31.76	3.18	47.06 HI
98	13.0	3.55	45.94U	32.94	3.29	45.10 HI
99	12.0	3.55	46.44U	34.44	3.44	43.54 HI
100	12.0	16.03	46.54U	34.54	3.45	43.37 HI
101	12.0	19.97	46.81U	34.81	3.48	42.93 HI
104	10.0	0.0	47.72U	29.72	2.97	45.97 HI
105	22.0	14.09	48.12U	26.12	2.61	48.78 HI
106	14.0	0.0	47.47U	33.47	3.35	43.27 HI
107	32.0	0.0	49.37U	17.37	1.74	57.64 HI
108	11.0	21.19	44.17U	33.17	3.32	46.50 HI
109	12.0	0.0	40.75U	28.75	2.88	52.87 HI
111	12.0	2.34	45.93U	33.93	3.39	44.37 HI
112	20.0	5.46	50.57U	30.57	3.06	42.32 HI

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SCM	PRESSURE CK	PRESSURE PCT DROP	PRESSURE CK
113	28.0	10.62	42.10U	14.10	1.41		68.67	HI
114	30.0	12.53	44.41U	14.41	1.44		66.48	HI
115	27.0	20.65	46.06U	19.06	1.91		58.55	HI
116	26.0	4.20	47.71U	21.71	2.17		53.81	HI
117	38.0	17.27	53.52U	15.52	1.55		55.66	HI
118	12.0	0.0	47.26U	35.28	3.53		42.17	HI
119	12.0	0.0	47.27U	35.27	3.53		42.18	HI
122	20.0	0.0	51.07U	31.07	3.11		41.37	HI
123	26.0	0.0	52.66U	26.66	2.66		43.42	HI
124	26.0	0.0	52.80U	26.80	2.68		42.98	HI
126	26.0	-76.00	52.80U	26.80	2.68		42.98	HI
128	30.0	0.0	52.86U	22.86	2.29		46.84	HI
132	12.0	5.95	46.90U	34.90	3.49		42.79	HI
135	24.0	34.65	54.60U	30.60	3.06		37.55	HI
136	13.0	8.40	48.51U	35.51	3.55		40.82	HI
137	12.0	11.18	47.73U	35.73	3.57		41.43	HI
138	12.0	16.45	28.74U	16.74	1.67		72.55	HI
152	26.0	8.87	44.99U	18.99	1.90		59.59	HI
153	30.0	13.70	37.79U	7.79	0.78		81.89	HI
154	20.0	5.35	39.91U	11.91	1.19		73.53	HI
155	18.0	3.74	47.42U	29.42	2.94		46.51	HI
156	18.0	16.94	42.27U	24.27	2.43		55.87	HI
157	16.0	13.35	40.11U	24.11	2.41		57.70	HI
158	30.0	17.27	56.69U	26.69	2.67		37.92	HI
159	24.0	12.23	48.95U	24.95	2.49		49.09	HI
160	11.0	12.23	37.28U	26.28	2.63		57.61	HI
161	12.0	20.42	29.33U	17.33	1.73		71.58	HI
162	12.0	13.28	34.53U	22.53	2.25		63.06	HI
163	12.0	20.72	39.46U	27.46	2.75		54.99	HI
164	30.0	24.46	48.80U	18.80	1.88		56.28	HI
165	27.0	12.97	42.61U	15.61	1.56		66.06	HI
166	12.0	44.01	33.40U	21.40	2.14		64.92	HI
167	28.0	37.76	53.84U	25.84	2.58		42.58	HI
168	12.0	31.59	49.16U	37.16	3.72		35.09	HI
169	22.0	7.28	48.87U	26.87	2.69		47.31	HI
170	12.0	8.40	40.71U	28.71	2.87		52.93	HI
171	12.0	8.40	42.41U	30.41	3.04		50.15	HI
172	12.0	5.58	42.69U	30.69	3.07		49.69	HI
173	12.0	8.40	43.69U	31.69	3.17		48.05	HI
174	12.0	8.40	41.32U	29.32	2.93		51.93	HI
175	12.0	8.40	43.85U	31.85	3.18		47.79	HI
176	26.0	2.57	45.82U	19.82	1.98		57.83	HI
178	12.0	18.99	47.04U	35.04	3.50		42.56	HI
179	12.0	9.99	35.95U	23.95	2.39		60.75	HI
180	12.0	5.58	42.17U	30.17	3.02		50.54	HI
181	12.0	10.87	42.62U	30.62	3.06		49.81	HI
182	12.0	12.49	42.01U	30.01	3.00		50.80	HI
183	12.0	12.49	46.00U	34.00	3.40		44.26	HI
184	16.0	17.01	47.97U	31.97	3.20		43.92	HI
185	12.0	11.18	49.36U	37.36	3.74		38.76	HI

50 BLOCKS 2,3,4,5&6 (2015 PEAK HOUR - CASE 1) 07/04/95

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SCM---CK	PRESSURE PCT DROP---CK	
186	14.0	4.13	44.75U	30.75	3.08	47.88	HI
187	36.0	23.71	56.58U	20.58	2.06	44.38	HI
188	34.0	17.27	55.21U	21.21	2.12	45.62	HI
189	28.0	17.27	39.14U	11.14	1.11	75.25	HI
190	22.0	28.02	37.45U	15.45	1.55	69.71	HI
191	30.0	20.91	44.96U	14.96	1.50	65.20	HI
192	12.0	6.74	31.68U	19.68	1.97	67.74	HI
193	12.0	14.10	43.10U	31.10	3.11	49.02	HI
200	13.0	5.70	41.83U	28.83	2.88	51.94	HI
201	12.0	7.61	41.62U	29.62	2.96	51.45	HI
202	12.0	12.13	41.62U	29.62	2.96	51.44	HI
203	13.0	4.25	40.94U	27.94	2.79	53.43	HI
204	13.0	0.0	40.94U	27.94	2.79	53.43	HI
206	12.0	3.38	44.17U	32.17	3.22	47.26	HI
208	13.0	5.06	45.03U	32.03	3.20	46.62	HI
210	12.0	-2.71	45.78U	33.78	3.38	44.62	HI
211	11.0	13.12	46.36U	35.36	3.54	42.97	HI
212	11.0	-76.00	46.94U	35.94	3.59	42.03	HI
214	12.0	5.06	41.33U	29.33	2.93	51.51	HI
216	13.0	14.82	38.77U	25.77	2.58	57.05	HI
217	11.0	19.68	36.49U	25.49	2.55	58.88	HI
218	12.0	21.54	38.76U	26.76	2.68	56.12	HI
220	12.0	1.92	38.97U	26.97	2.70	55.78	HI
222	12.0	18.13	35.38U	23.38	2.34	61.67	HI
223	12.0	22.26	42.25U	30.25	3.03	50.41	HI
224	12.0	21.88	35.84U	23.84	2.38	60.92	HI
226	12.0	9.82	38.42U	26.42	2.64	56.69	HI
228	12.0	8.14	35.99U	23.99	2.40	60.68	HI
230	13.0	10.87	38.28U	25.28	2.53	57.87	HI
232	12.0	13.16	38.39U	26.39	2.64	56.74	HI
234	13.0	13.16	36.18U	23.18	2.32	61.36	HI
236	13.0	10.97	37.69U	24.69	2.47	58.86	HI
238	13.0	16.08	36.55U	23.55	2.35	60.75	HI
240	12.0	9.38	36.74U	24.74	2.47	59.45	HI
242	12.0	22.77	38.67U	26.67	2.67	56.28	HI
243	13.0	0.0	35.68U	22.68	2.27	62.20	HI
244	13.0	0.0	62.81U	49.81	4.98	16.99	HI
246	13.0	13.56	60.41U	47.41	4.74	20.98	HI
247	18.0	7.07	42.32U	24.32	2.43	55.78	HI
248	12.0	11.79	49.69U	37.69	3.77	38.21	HI
249	12.0	8.80	41.74U	29.74	2.97	51.25	HI
250	12.0	11.27	39.80U	27.80	2.78	54.43	HI
251	12.0	0.0	35.99U	23.99	2.40	60.68	HI
252	13.0	0.0	56.38U	43.38	4.34	27.71	HI
253	12.0	5.09	59.47U	47.47	4.75	22.18	HI
254	12.0	9.92	48.08U	36.08	3.61	40.86	HI
255	13.0	8.40	34.02U	21.02	2.10	64.96	HI
256	12.0	8.40	36.55U	24.55	2.45	59.76	HI
257	13.0	8.38	42.82U	29.82	2.98	50.31	HI
258	13.0	16.75	46.91U	33.91	3.39	43.48	HI

NODE	GROUND ELEV.	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SCM	CK	PCT DROP	CK
259	13.0	8.38	34.97U	21.97	2.20		62.38	HI
260	13.0	10.08	35.86U	22.86	2.29		61.90	HI
262	13.0	16.42	35.58U	22.58	2.26		62.37	HI
263	14.0	14.24	33.72U	19.72	1.97		66.57	HI
264	12.0	8.40	38.37U	26.37	2.64		56.77	HI
265	12.0	4.06	36.75U	24.75	2.48		59.42	HI
266	13.0	6.09	35.10U	22.10	2.21		63.17	HI
267	13.0	9.97	34.52U	21.52	2.15		64.13	HI
268	19.0	21.86	68.90U	49.90	4.99		7.59	HI
269	13.0	9.22	34.80U	21.80	2.18		62.67	HI
270	12.0	12.37	39.71U	27.71	2.77		54.58	HI
271	18.0	8.35	61.37U	43.37	4.34		21.15	HI
272	13.0	2.66	38.50U	25.50	2.55		57.50	HI
273	14.0	9.76	65.57U	51.57	5.16		12.60	HI
274	13.0	8.40	38.18U	25.18	2.52		58.03	HI
276	13.0	10.95	34.27U	21.27	2.13		64.55	HI
277	13.0	10.95	58.27U	45.27	4.53		24.56	HI
278	16.0	21.35	75.88U	59.88	5.99		-5.05	
280	12.0	8.56	32.76U	20.76	2.08		65.96	HI
281	13.0	0.0	27.99U	14.99	1.50		75.02	HI
282	13.0	5.04	37.89U	24.89	2.49		58.52	HI
283	13.0	8.00	29.86U	16.86	1.69		71.90	HI
284	13.0	3.36	36.91U	23.91	2.39		60.15	HI
285	13.0	3.36	24.82U	11.82	1.18		80.31	HI
286	13.0	21.82	30.51U	17.51	1.75		70.82	HI
287	13.0	17.15	29.72U	16.72	1.67		72.14	HI
288	13.0	15.92	31.04U	18.04	1.80		69.93	HI
289	12.0	32.58	31.99U	19.99	2.00		67.24	HI
290	12.0	13.96	32.45U	20.45	2.04		66.48	HI
291	14.0	0.0	33.34U	19.34	1.93		67.23	HI
292	14.0	16.75	33.93U	19.93	1.99		66.22	HI
293	14.0	1.70	34.61U	20.61	2.06		65.08	HI
294	16.0	2.34	33.93U	17.93	1.79		68.55	HI
295	13.0	3.55	29.17U	16.17	1.62		73.04	HI
296	18.0	1.17	77.04U	59.04	5.90		-7.35	
297	13.0	40.00	44.56U	31.56	3.16		47.39	HI
299	13.0	5.02	25.68U	12.68	1.27		78.87	HI
300	13.0	32.27	43.44U	30.44	3.04		45.27	HI
301	13.0	68.25	24.68U	11.68	1.17		80.54	HI
302	13.0	16.15	41.67U	28.67	2.87		52.21	HI
304	12.0	9.68	39.08U	27.08	2.71		55.60	HI
305	12.0	0.0	41.69U	29.69	2.97		51.33	HI
306	12.0	19.35	35.77U	23.77	2.38		61.02	HI
307	12.0	0.0	39.66U	27.66	2.77		54.65	HI
308	12.0	62.56	35.75U	23.75	2.38		61.06	HI
309	12.0	21.00	38.39U	26.39	2.64		56.74	HI
310	12.0	7.37	35.58U	23.58	2.36		61.34	HI
311	12.0	0.0	37.34U	25.34	2.53		58.46	HI
312	12.0	57.60	35.28U	23.28	2.33		61.84	HI
314	12.0	0.0	36.24U	24.24	2.42		60.27	HI

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BLOCKS 2,3,4,5&6 (2015 PEAK HOUR - CASE 1)

07/24/95

NODE	GROUND ELEV	FLOW	HGL ELEV	HEAD MTRS	PRESSURE KG/SCM--CK		PRESSURE PCT DROP--CK	
400	73.0	-1499.99	69.26U	-3.74	-0.37	LO	100.00	HI
402	72.0	-1015.00	63.99U	-8.01	-0.80	LO	901.40	HI
404	60.0	0.0	66.82U	6.82	0.68		47.51	HI
411	42.0	0.0	59.31U	17.31	1.73		44.15	HI
412	43.0	18.57	60.07U	17.07	1.71		42.09	HI
500	58.3	-430.69U	58.30	0.0	0.0	LO	-100.00	HI
501	58.3	-309.55U	58.30	-0.00	-0.00	LO	100.00	HI
502	30.0	0.0	58.23U	28.23	2.82		34.35	HI
504	52.0	40.00	58.25U	6.25	0.62		70.25	HI
505	52.0	-59.08	100.13U	48.13	4.81		-129.19	
506	50.0	0.0	58.23U	8.23	0.82		64.23	HI
507	50.0	0.0	58.22U	8.22	0.82		64.27	HI
508	50.0	0.0	58.18U	8.18	0.82		64.43	HI
509	80.0	5.04	93.09U	13.09	1.31		287.04	HI
510	80.0	5.04	96.56U	16.56	1.66		236.61	HI
511	70.0	5.04	89.81U	19.81	1.98		-560.23	
512	79.0	7.61	93.89U	15.89	1.59		417.84	HI
513	59.0	2.54	89.72U	30.72	3.07		-119.46	
514	58.0	7.31	89.74U	31.74	3.17		-111.57	
516	58.0	0.0	90.25U	32.25	3.22		-115.00	
517	57.0	0.0	90.10U	33.10	3.31		-106.86	
518	54.0	9.90	75.10U	21.10	2.11		-11.05	
519	54.0	0.80	85.12U	31.12	3.11		-63.77	
520	54.0	-2.97	78.90U	24.90	2.49		-31.03	
521	52.0	6.14	74.06U	22.06	2.21		-5.04	
522	48.0	-11.29	74.04U	26.04	2.60		-4.14	
523	44.0	-2.71	72.11U	28.11	2.81		3.06	HI
524	38.0	19.95	73.98U	35.98	3.60		-2.81	
525	43.0	19.65	78.75U	35.75	3.58		-19.32	
526	46.0	9.29	66.55U	20.55	2.06		23.87	HI
527	33.0	11.08	69.63U	36.63	3.66		8.41	HI
528	34.0	6.72	58.64U	24.64	2.46		36.81	HI
529	34.0	6.72	55.35U	21.35	2.14		45.25	HI
530	32.0	21.40	46.31U	14.31	1.43		65.11	HI
531	40.0	6.54	60.73U	20.73	2.07		37.18	HI
532	40.0	11.29	46.33U	6.33	0.63		80.81	HI
533	46.0	12.32	74.64U	28.64	2.86		-6.07	
534	50.0	0.0	83.87U	33.87	3.39		-47.27	
535	52.0	4.79	86.59U	34.59	3.46		-64.70	
536	52.0	0.0	56.53U	4.53	0.45		78.43	HI
537	47.0	4.79	86.19U	39.19	3.92		-50.75	
538	67.0	7.30	85.55U	18.55	1.85		-209.13	
539	36.0	9.69	71.98U	35.98	3.60		2.75	HI
541	56.0	13.44	70.59U	14.59	1.46		14.19	HI
542	57.0	0.0	90.28U	33.28	3.33		-108.03	
543	43.0	2.71	72.35U	29.35	2.93		2.18	HI
544	48.0	2.71	72.36U	24.36	2.44		2.55	HI
545	56.0	10.53	75.88U	19.88	1.99		-16.95	
546	60.0	5.04	75.45U	15.45	1.55		-18.86	
547	68.0	7.61	85.97U	17.97	1.80		-259.50	