



**Finanziato
dall'Unione europea**
NextGenerationEU



Italiadomani
PIANO NAZIONALE DI RIPRESA E RESILIENZA



Mims
Ministero delle infrastrutture
e della mobilità sostenibili

PIANO NAZIONALE DI RIPRESA E RESILIENZA M2C4 - I4.1

"INVESTIMENTI IN INFRASTRUTTURE IDRICHE PRIMARIE PER LA SICUREZZA DELL'APPROVVIGIONAMENTO IDRICO"



CONSORZIO DI BONIFICA
della romagna occidentale

PROGETTO DI MESSA IN SICUREZZA E INCREMENTO DELLA RESILIENZA IDRICO-IDRAULICA DEI TERRITORI SOTTESI DAL CANALE "FOSSO VECCHIO" MEDIANTE COSTRUZIONE DI UNA CASSA DI ESPANSIONE CON FUNZIONE DI LAMINAZIONE DELLE PIENE E DI INVASO PER L'EFFICIENTAMENTO DELLA PRATICA IRRIGUA DA CANALI A RETE TUBATA IN PRESSIONE, NEI COMUNI DI BAGNACAVALLO, COTIGNOLA E FAENZA IN PROVINCIA DI RAVENNA.

CUP I41B21003430008

CODICE INTERVENTO PNRR-M2C4-I4.1-A2-2

ATTRAVERSAMENTO

FERROVIA CASTEL BOLOGNESE– RAVENNA Km 22 + 174

ALL. 5

RELAZIONE TECNICO IDRAULICA



IL PROGETTISTA
Dott. Ing. Elvio Cangini
Firmato digitalmente

DISTRETTO IRRIGUO BONCELLINO
Efficientamento dell'area irrigua

1. CALCOLI E VERIFICHE IDRAULICHE

1.1 PREMESSA

La presente relazione di calcolo prende in considerazione la verifica e il dimensionamento della rete di distribuzione irrigua in alta pressione in progetto, destinata a servire il distretto denominato “Boncellino” nel comune di Bagnacavallo (RA).

La batteria di 3 pompe a servizio della rete progettata sarà collocata all'interno della centrale di pompaggio omonima e la dotazione d'acqua da vasca di accumulo sarà pari a circa 450 l/s con pressione in uscita alla centrale di circa 8 atm.

L'area potenzialmente servita dalla rete di distribuzione è pari a circa 1200 Ha delimitati a sud-est dal fiume Lamone, a nord dall'autostrada A14, a ovest dalla strada prov. 8 e a sud-ovest dalla strada prov. 75.

Agli utenti deve essere garantita una pressione minima di esercizio pari a 4 atm per consentire ogni tipo di pratica irrigua senza bisogno di ulteriore rilancio.

Nel presente studio si considera anche l'ipotesi di funzionamento turnato.

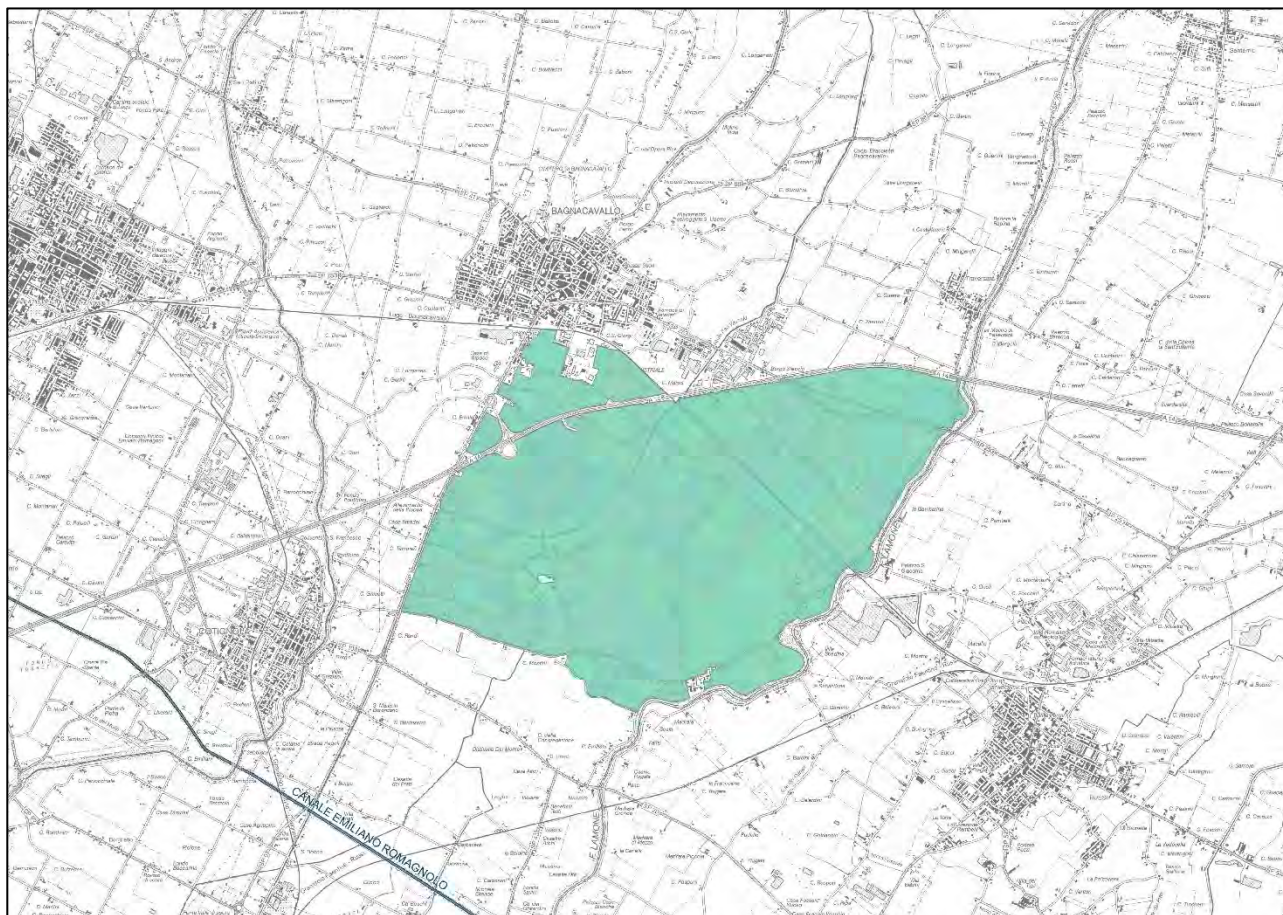


Figura 1 – area distretto Boncellino

1.2 DISTRETTO IRRIGUO “BONCELLINO”

Per la verifica della rete di distribuzione nel distretto irriguo servito dalla centrale di pompaggio denominata “Boncellino”, si è ricorso al modello idraulico EPANET sviluppato dal Water Supply and Water Resources Division del U.S. Environmental Protection Agency's National Risk Management Research Laboratories, che consente di simulare il comportamento idraulico e la qualità dell'acqua in una rete di condotte in pressione. Il programma si basa su un algoritmo di calcolo che sfrutta il metodo del gradiente per la soluzione iterativa di sistemi di equazioni non lineari. Si rimanda al sito <https://www.epa.gov/water-research/epanet> per la visualizzazione delle specifiche e del manuale.

Il legame tra perdite di carico e portate viene espresso mediante la formula di Darcy Weisbach in quanto teoricamente più corretta e applicabile a tutti i regimi di flusso. Tale formula si rappresenta nell'espressione seguente:

$$h_L = A \cdot q^B$$
$$\text{con } A = 0.0252 \cdot f(\varepsilon, d, q) \cdot d^{-5} \cdot L$$

in cui:

h_L = perdite di carico per unità di lunghezza;

A = coefficiente di resistenza;

q = portata;

B = esponente del flusso.

ε = coefficiente di rugosità di Darcy-Weisbach;

f = coefficiente di rugosità di Darcy-Weisbach;

L = lunghezza del tubo;

d = diametro del tubo.

La tipologia di condotte utilizzate per la rete in oggetto è costituita tubazioni in ghisa rivestite internamente in cemento centrifugato e condotte in polietilene ad alta densità.

Sulla base dei dati proposti dalle case costruttrici delle tubazioni di cui è previsto l'impiego in progetto è stato adottato un coefficiente $\varepsilon = 0.15$ mm per le condotte in ghisa sferoidale e $\varepsilon = 0.015$ mm per le condotte in polietilene alta densità, in linea con i valori solitamente assunti nella pratica progettuale e da letteratura.

La rete viene schematizzata con un reticolo costituito da NODI e RAMI.

I RAMI sono caratterizzati dai nodi di incidenza (iniziali e finali), dalla lunghezza, dal diametro interno e dalla scabrezza della tubazione; ai NODI viene applicata la portata (in entrata ed in uscita). Il programma di calcolo restituisce il carico ai NODI in funzione del carico iniziale dato dalle pompe della centrale e delle perdite di carico distribuite lungo la rete di distribuzione.

Ad ogni NODO è possibile assegnare anche una quota. Trattandosi di un distretto in pianura tutta la rete è stata considerata a quota 10 m. Al fine di considerare eventuali scostamenti di quota tra effettivo posizionamento dell'idrante e piano di progetto, si considera una pressione limite minima di progetto pari a 4,5 atm.

In riferimento agli schemi delle figure riportate successivamente, sono state considerate le seguenti condizioni di funzionamento:

- a. ipotesi di funzionamento considerando una portata in ingresso pari a 450 l/sec (portata massima che l'impianto di pompaggio è in grado di fornire) e una portata in uscita distribuita su tutta la rete (326 idranti potenziali) con valore medio pari a 1,38 l/sec per ogni idrante;
- b. ipotesi di funzionamento turnato a giorni alterni, considerando una portata in ingresso pari a 450 l/sec e distribuzione irrigua sugli idranti (per i quali si prevede una portata di 4.68 l/s e una pressione minima di 4,5 atm) all'interno del semicomparto individuato a ovest del distretto.
- c. ipotesi di funzionamento turnato a giorni alterni, considerando una portata in ingresso pari a 450 l/sec e distribuzione irrigua sugli idranti (per i quali si prevede una portata di 3.98 l/s e una pressione minima di 4,5 atm) all'interno del semicomparto individuato al centro del distretto.
- d. ipotesi di funzionamento turnato a giorni alterni, considerando una portata in ingresso pari a 450 l/sec e distribuzione irrigua sugli idranti (per i quali si prevede una portata di 3.84 l/s e una pressione minima di 4,5 atm) all'interno del semicomparto individuato ad est del distretto.

Vengono riportati in seguito, in forma tabellare, i dati generali adottati.

Ipotesi di funzionamento - a -			
Comparto	idranti potenziali	portata in uscita	portata da ogni idrante
Boncellino	n. 326	450 l/s	1,38 l/s

Ipotesi di funzionamento - b - Turno semicomparto ovest			
Comparto	idranti potenziali	portata da ogni idrante	portata complessiva
Boncellino nord	n. 96	4,68 l/s	450 l/s

Ipotesi di funzionamento - c - Turno semicomparto centro			
Comparto	idranti potenziali	portata da ogni idrante	Portata complessiva
Boncellino centro	n. 113	3,98 l/s	450 l/s

Ipotesi di funzionamento - d - Turno semicomparto est			
Comparto	idranti potenziali	portata da ogni idrante	Portata complessiva
Boncellino sud	n. 117	3,84 l/s	450 l/s

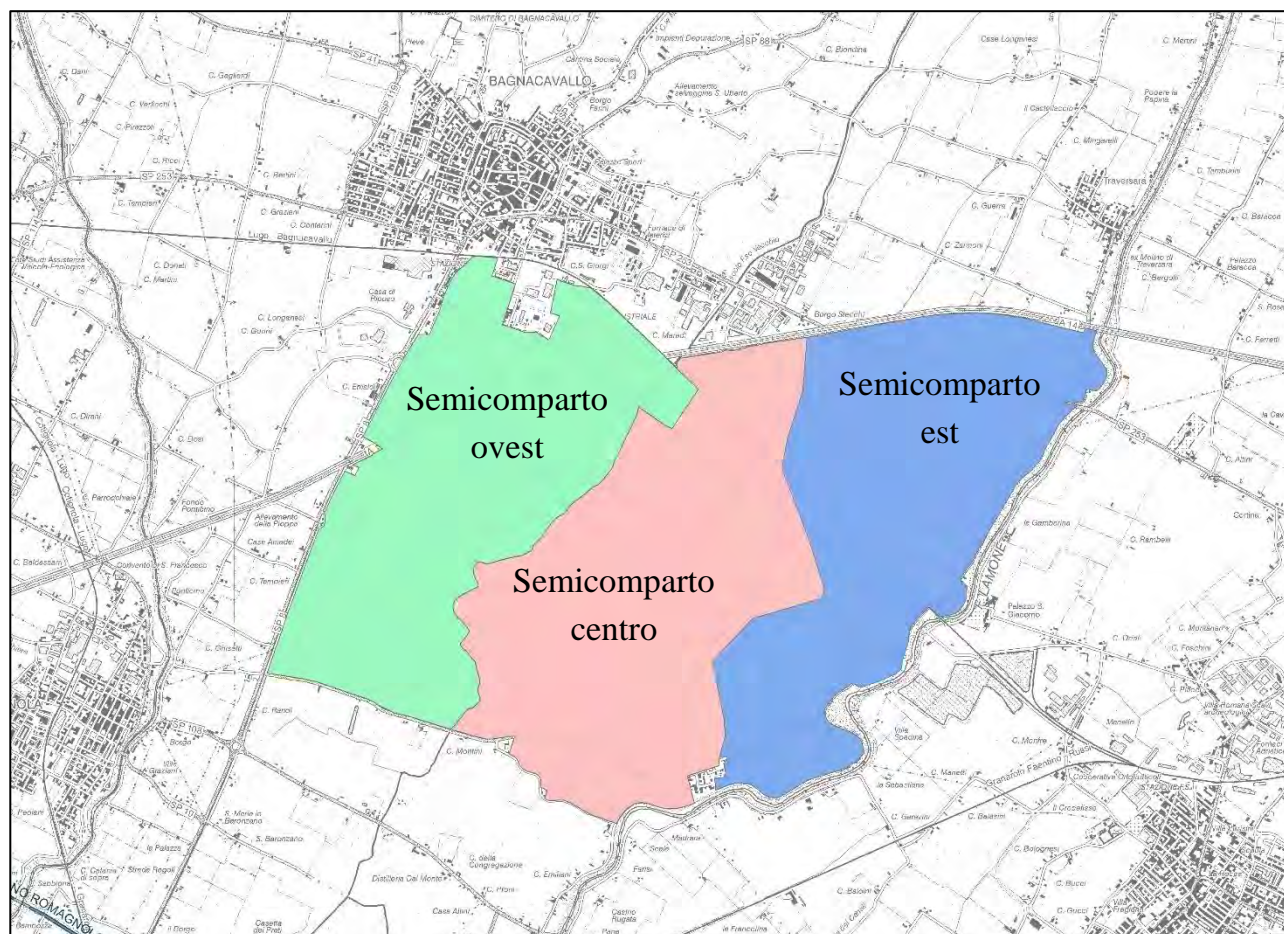


Figura 2 – Semicomparti distretto Boncellino

Con riferimento alla rete in oggetto si riporta nel seguito la schematizzazione effettuata ed i risultati principali ottenuti dal modello di calcolo.

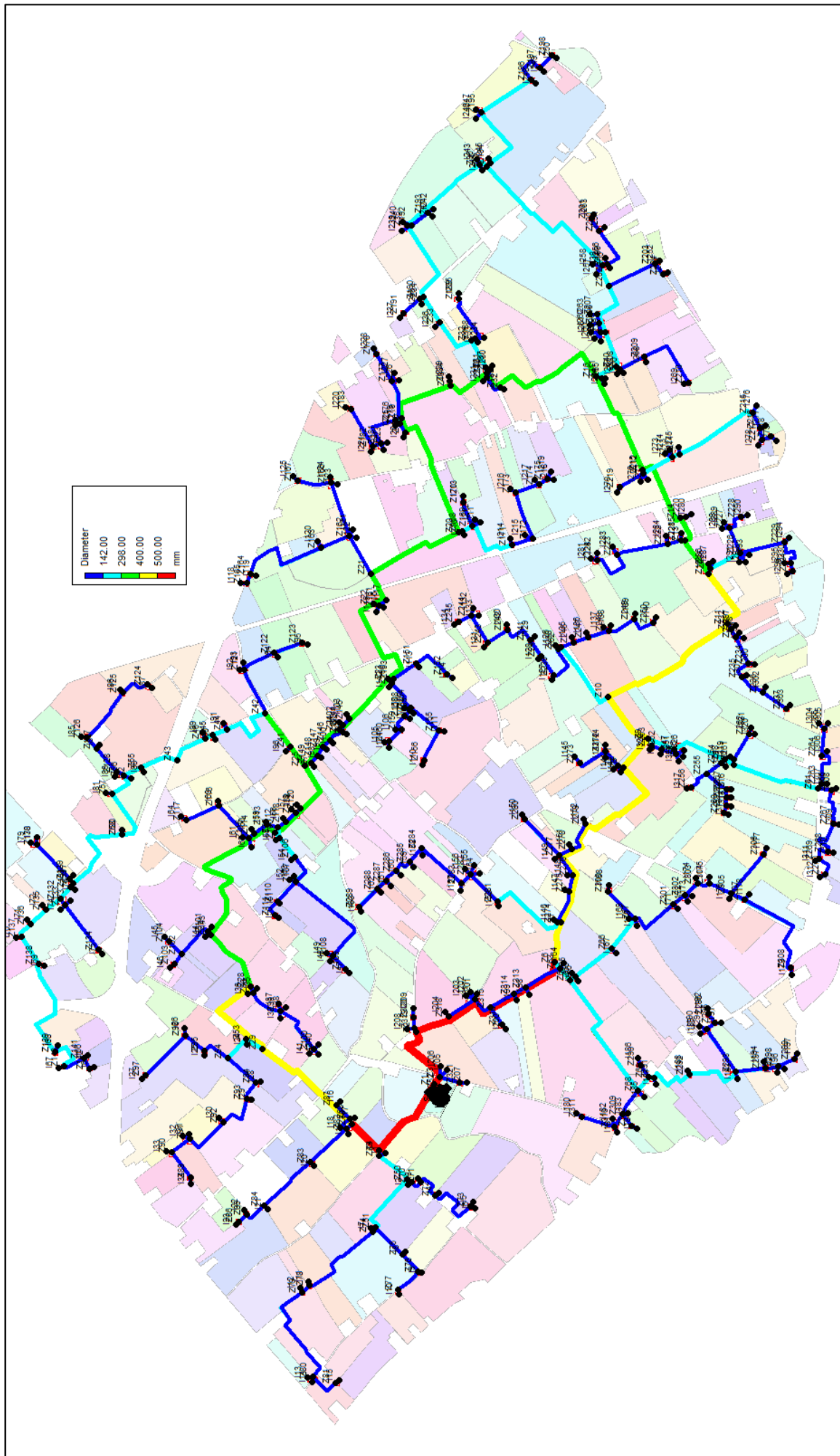


Figura 3 – modello della rete con numerazione nodi e diametri

* E P A N E T *****
* Hydraulic and Water Quality *
* Analysis for Pipe Networks *
* Version 2.2 *****

DATI SIMULAZIONE BONCELLINO

[JUNCTIONS]

;ID	Elev	Demand	
Z1	10	0.00	;
Z2	10	0.00	;
Z3	10	0.00	;
Z4	10	0.00	;
Z6	10	0.00	;
Z7	10	0.00	;
Z8	10	0.00	;
Z9	10	0.00	;
Z10	10	0.00	;
Z11	10	0.00	;
Z12	10	0.00	;
Z13	10	0.00	;
Z14	10	0.00	;
Z15	10	0.00	;
Z16	10	0.00	;
Z17	10	0.00	;
Z18	10	0.00	;
Z19	10	0.00	;
Z20	10	0.00	;
Z21	10	0.00	;
Z22	10	0.00	;
Z23	10	0.00	;
Z24	10	0.00	;
Z25	10	0.00	;
Z26	10	0.00	;
Z27	10	0.00	;
Z28	10	0.00	;
Z29	10	0.00	;
Z30	10	0.00	;
Z31	10	0.00	;
Z32	10	0.00	;
Z33	10	0.00	;
Z34	10	0.00	;
Z35	10	0.00	;
Z36	10	0.00	;
Z37	10	0.00	;
Z38	10	0.00	;
Z39	10	0.00	;
Z40	10	0.00	;
Z41	10	0.00	;
Z42	10	0.00	;
Z43	10	0.00	;

Z44	10	0.00	;
Z45	10	0.00	;
Z46	10	0.00	;
Z47	10	0.00	;
Z48	10	0.00	;
Z49	10	0.00	;
Z50	10	0.00	;
Z51	10	0.00	;
Z52	10	0.00	;
Z53	10	0.00	;
Z54	10	0.00	;
Z55	10	0.00	;
Z56	10	0.00	;
Z57	10	0.00	;
Z58	10	0.00	;
Z59	10	0.00	;
Z60	10	0.00	;
Z61	10	0.00	;
Z62	10	0.00	;
Z63	10	0.00	;
Z64	10	0.00	;
Z65	10	0.00	;
Z66	10	0.00	;
Z67	10	0.00	;
Z68	10	0.00	;
Z69	10	0.00	;
Z70	10	0.00	;
Z71	10	0.00	;
Z72	10	0.00	;
Z73	10	0.00	;
Z74	10	0.00	;
Z75	10	0.00	;
Z76	10	0.00	;
Z77	10	0.00	;
Z78	10	0.00	;
Z79	10	0.00	;
Z80	10	0.00	;
Z81	10	0.00	;
Z82	10	0.00	;
Z83	10	0.00	;
Z84	10	0.00	;
Z85	10	0.00	;
Z86	10	0.00	;
Z87	10	0.00	;
Z88	10	0.00	;
Z89	10	0.00	;
Z90	10	0.00	;
Z91	10	0.00	;
Z92	10	0.00	;
Z93	10	0.00	;
Z94	10	0.00	;
Z95	10	0.00	;
Z96	10	0.00	;
Z97	10	0.00	;
Z98	10	0.00	;

Z99	10	0.00	;
Z100	10	0.00	;
Z101	10	0.00	;
Z102	10	0.00	;
Z103	10	0.00	;
Z104	10	0.00	;
Z105	10	0.00	;
Z106	10	0.00	;
Z107	10	0.00	;
Z108	10	0.00	;
Z109	10	0.00	;
Z110	10	0.00	;
Z111	10	0.00	;
Z112	10	0.00	;
Z113	10	0.00	;
Z114	10	0.00	;
Z115	10	0.00	;
Z116	10	0.00	;
Z117	10	0.00	;
Z118	10	0.00	;
Z119	10	0.00	;
Z120	10	0.00	;
Z121	10	0.00	;
Z122	10	0.00	;
Z123	10	0.00	;
Z124	10	0.00	;
Z125	10	0.00	;
Z126	10	0.00	;
Z127	10	0.00	;
Z128	10	0.00	;
Z129	10	0.00	;
Z130	10	0.00	;
Z131	10	0.00	;
Z132	10	0.00	;
Z133	10	0.00	;
Z134	10	0.00	;
Z135	10	0.00	;
Z136	10	0.00	;
Z137	10	0.00	;
Z138	10	0.00	;
Z139	10	0.00	;
Z140	10	0.00	;
Z141	10	0.00	;
Z142	10	0.00	;
Z143	10	0.00	;
Z144	10	0.00	;
Z145	10	0.00	;
Z146	10	0.00	;
Z147	10	0.00	;
Z148	10	0.00	;
Z149	10	0.00	;
Z150	10	0.00	;
Z151	10	0.00	;
Z152	10	0.00	;
Z153	10	0.00	;

Z154	10	0.00	;
Z155	10	0.00	;
Z156	10	0.00	;
Z157	10	0.00	;
Z158	10	0.00	;
Z159	10	0.00	;
Z160	10	0.00	;
Z161	10	0.00	;
Z162	10	0.00	;
Z163	10	0.00	;
Z164	10	0.00	;
Z165	10	0.00	;
Z166	10	0.00	;
Z167	10	0.00	;
Z168	10	0.00	;
Z169	10	0.00	;
Z170	10	0.00	;
Z171	10	0.00	;
Z172	10	0.00	;
Z173	10	0.00	;
Z174	10	0.00	;
Z175	10	0.00	;
Z176	10	0.00	;
Z177	10	0.00	;
Z178	10	0.00	;
Z179	10	0.00	;
Z180	10	0.00	;
Z181	10	0.00	;
Z182	10	0.00	;
Z183	10	0.00	;
Z184	10	0.00	;
Z185	10	0.00	;
Z186	10	0.00	;
Z187	10	0.00	;
Z188	10	0.00	;
Z189	10	0.00	;
Z190	10	0.00	;
Z191	10	0.00	;
Z192	10	0.00	;
Z193	10	0.00	;
Z194	10	0.00	;
Z195	10	0.00	;
Z196	10	0.00	;
Z197	10	0.00	;
Z198	10	0.00	;
Z199	10	0.00	;
Z200	10	0.00	;
Z201	10	0.00	;
Z202	10	0.00	;
Z203	10	0.00	;
Z204	10	0.00	;
Z205	10	0.00	;
Z206	10	0.00	;
Z207	10	0.00	;
Z208	10	0.00	;

Z209 10 0.00 ;
Z210 10 0.00 ;
Z211 10 0.00 ;
Z212 10 0.00 ;
Z213 10 0.00 ;
Z214 10 0.00 ;
Z215 10 0.00 ;
Z216 10 0.00 ;
Z217 10 0.00 ;
Z218 10 0.00 ;
Z219 10 0.00 ;
Z220 10 0.00 ;
Z221 10 0.00 ;
Z222 10 0.00 ;
Z223 10 0.00 ;
Z224 10 0.00 ;
Z225 10 0.00 ;
Z226 10 0.00 ;
Z227 10 0.00 ;
Z228 10 0.00 ;
Z229 10 0.00 ;
Z230 10 0.00 ;
Z231 10 0.00 ;
Z232 10 0.00 ;
Z233 10 0.00 ;
Z234 10 0.00 ;
Z235 10 0.00 ;
Z236 10 0.00 ;
Z237 10 0.00 ;
Z238 10 0.00 ;
Z239 10 0.00 ;
Z240 10 0.00 ;
Z241 10 0.00 ;
Z242 10 0.00 ;
Z243 10 0.00 ;
Z244 10 0.00 ;
Z245 10 0.00 ;
Z246 10 0.00 ;
Z247 10 0.00 ;
Z248 10 0.00 ;
Z249 10 0.00 ;
Z250 10 0.00 ;
Z251 10 0.00 ;
Z252 10 0.00 ;
Z253 10 0.00 ;
Z254 10 0.00 ;
Z255 10 0.00 ;
Z256 10 0.00 ;
Z257 10 0.00 ;
Z258 10 0.00 ;
Z259 10 0.00 ;
Z260 10 0.00 ;
Z261 10 0.00 ;
Z262 10 0.00 ;
Z263 10 0.00 ;

Z264 10 0.00 ;
Z265 10 0.00 ;
Z266 10 0.00 ;
Z267 10 0.00 ;
Z268 10 0.00 ;
Z269 10 0.00 ;
Z270 10 0.00 ;
Z271 10 0.00 ;
Z272 10 0.00 ;
Z273 10 0.00 ;
Z274 10 0.00 ;
Z275 10 0.00 ;
Z276 10 0.00 ;
Z277 10 0.00 ;
Z278 10 0.00 ;
Z279 10 0.00 ;
Z280 10 0.00 ;
Z281 10 0.00 ;
Z282 10 0.00 ;
Z283 10 0.00 ;
Z284 10 0.00 ;
Z285 10 0.00 ;
Z286 10 0.00 ;
Z287 10 0.00 ;
Z288 10 0.00 ;
Z289 10 0.00 ;
Z290 10 0.00 ;
Z291 10 0.00 ;
Z292 10 0.00 ;
Z293 10 0.00 ;
Z294 10 0.00 ;
Z295 10 0.00 ;
Z296 10 0.00 ;
Z297 10 0.00 ;
Z298 10 0.00 ;
Z299 10 0.00 ;
Z300 10 0.00 ;
Z301 10 0.00 ;
Z302 10 0.00 ;
Z303 10 0.00 ;
Z304 10 0.00 ;
Z305 10 0.00 ;
Z306 10 0.00 ;
Z307 10 0.00 ;
Z308 10 0.00 ;
Z309 10 0.00 ;
Z310 10 0.00 ;
Z311 10 0.00 ;
Z312 10 0.00 ;
Z313 10 0.00 ;
Z314 10 0.00 ;
Z315 10 0.00 ;
Z316 10 0.00 ;
Z317 10 0.00 ;
Z318 10 0.00 ;

[illegible]

I218	10	0.00	;	I273	10	0.00	;
I219	10	0.00	;	I274	10	0.00	;
I220	10	0.00	;	I275	10	0.00	;
I221	10	0.00	;	I276	10	0.00	;
I222	10	0.00	;	I277	10	0.00	;
I223	10	0.00	;	I278	10	0.00	;
I224	10	0.00	;	I279	10	0.00	;
I225	10	0.00	;	I280	10	0.00	;
I226	10	0.00	;	I281	10	0.00	;
I227	10	0.00	;	I282	10	0.00	;
I228	10	0.00	;	I283	10	0.00	;
I229	10	0.00	;	I284	10	0.00	;
I230	10	0.00	;	I285	10	0.00	;
I231	10	0.00	;	I286	10	0.00	;
I232	10	0.00	;	I287	10	0.00	;
I233	10	0.00	;	I288	10	0.00	;
I234	10	0.00	;	I289	10	0.00	;
I235	10	0.00	;	I290	10	0.00	;
I236	10	0.00	;	I291	10	0.00	;
I237	10	0.00	;	I292	10	0.00	;
I238	10	0.00	;	I293	10	0.00	;
I239	10	0.00	;	I294	10	0.00	;
I240	10	0.00	;	I295	10	0.00	;
I241	10	0.00	;	I296	10	0.00	;
I242	10	0.00	;	I297	10	0.00	;
I243	10	0.00	;	I298	10	0.00	;
I244	10	0.00	;	I299	10	0.00	;
I245	10	0.00	;	I300	10	0.00	;
I246	10	0.00	;	I301	10	0.00	;
I247	10	0.00	;	I302	10	0.00	;
I248	10	0.00	;	I303	10	0.00	;
I249	10	0.00	;	I304	10	0.00	;
I250	10	0.00	;	I305	10	0.00	;
I251	10	0.00	;	I306	10	0.00	;
I252	10	0.00	;	I307	10	0.00	;
I253	10	0.00	;	I308	10	0.00	;
I254	10	0.00	;	I309	10	0.00	;
I255	10	0.00	;	I310	10	0.00	;
I256	10	0.00	;	I311	10	0.00	;
I257	10	0.00	;	I312	10	0.00	;
I258	10	0.00	;	I313	10	0.00	;
I259	10	0.00	;	I314	10	0.00	;
I260	10	0.00	;	I315	10	0.00	;
I261	10	0.00	;	I316	10	0.00	;
I262	10	0.00	;	I317	10	0.00	;
I263	10	0.00	;	I318	10	0.00	;
I264	10	0.00	;	I319	10	0.00	;
I265	10	0.00	;	I320	10	0.00	;
I266	10	0.00	;	I321	10	0.00	;
I267	10	0.00	;	I322	10	0.00	;
I268	10	0.00	;	I323	10	0.00	;
I269	10	0.00	;	I324	10	0.00	;
I270	10	0.00	;	I325	10	0.00	;
I271	10	0.00	;	I326	10	0.00	;
I272	10	0.00	;				

[COORDINATES]

X-Coord

Y-Coord

Z1 1497.687
Z2 1720.779
Z3 1527.402
Z4 1215.634
Z6 2018.428
Z7 2187.894
Z8 2846.527
Z9 2968.708
Z10 3145.298
Z11 3456.478
Z12 3668.386
Z13 3812.522
Z14 3907.021
Z15 4112.247
Z16 4508.381
Z17 4524.609
Z18 4469.245
Z19 4330.837
Z20 3846.885
Z21 3668.386
Z22 3541.432
Z23 3220.707
Z24 3004.981
Z25 2851.300
Z26 2567.801
Z27 2131.576
Z28 1913.941
Z29 1646.670
Z30 1325.944
Z31 4545.240
Z32 4660.739
Z33 4738.057
Z34 4846.875
Z35 5151.373
Z36 5409.099
Z37 5402.417
Z38 4980.510
Z39 4698.921
Z40 4550.013
Z41 2931.816
Z42 3076.988
Z43 2876.422
Z44 3008.222
Z45 2983.390
Z46 2966.199
Z47 2920.867
Z48 2878.867
Z49 1191.278
Z50 1092.006
Z51 886.779
Z52 1481.702
Z53 1687.882
Z54 1607.701

Z55
Z56
Z57
Z58
Z59
Z60
Z61
Z62
Z63
Z64
Z65
Z66
Z67
Z68
Z69
Z70
Z71
Z72
Z73
Z74
Z75
Z76
Z77
Z78
Z79
Z80
Z81
Z82
Z83
Z84
Z85
Z86
Z87
Z88
Z89
Z90
Z91
Z92
Z93
Z94
Z95
Z96
Z97
Z98
Z99
Z100
Z101
Z102
Z103
Z104
Z105
Z106
Z107
Z108
Z109

2843.831
2810.422
2734.058
2560.332
2352.242
2857.194
2757.573
3356.547
1988.877
1939.213
1954.495
2074.834
2200.904
1471.226
1528.530
1082.894
1079.555
1023.746
977.953
870.740
772.527
697.885
623.243
640.267
611.458
252.653
226.463
1308.504
1166.278
979.188
943.870
913.325
1409.686
1349.550
1101.369
1207.323
1264.595
1335.231
1434.504
1505.140
1639.730
1705.593
1536.639
1886.956
1808.683
1645.457
2149.454
2053.046
2010.091
2103.636
2545.588
2462.543
2361.362
2045.409
1984.319

3003.779
3078.233
3126.914
3083.960
3291.095
482.838
122.178
1215.477
1221.208
1179.184
1156.263
999.630
902.212
888.841
842.998
1853.913
1815.753
1750.403
1603.964
2019.903
1890.262
1826.096
1909.904
2288.351
2318.470
2271.328
2175.734
2129.189
2283.824
2480.460
2553.959
2586.414
2170.234
2112.962
2793.549
2872.776
2797.367
2655.140
2553.959
2515.778
2733.413
2813.594
2985.411
2525.323
2412.687
2268.552
2718.140
2829.821
2863.230
2886.139
2414.596
2348.733
2346.824
2187.416
2132.052

Z110 2276.408 2424.142
Z111 2216.272 2432.733
Z112 2591.406 2421.278
Z113 2600.952 2469.960
Z114 2562.770 2523.414
Z115 2543.679 2547.277
Z116 2682.088 2673.277
Z117 2620.997 2811.685
Z118 2613.361 2388.824
Z119 2652.497 2346.824
Z120 2672.542 2327.733
Z121 3262.448 2566.368
Z122 3332.129 2436.551
Z123 3376.038 2317.233
Z124 3197.539 2976.820
Z125 3163.176 3080.865
Z126 2972.268 3234.546
Z127 2926.450 3194.456
Z128 2826.223 3106.638
Z129 2372.817 3309.955
Z130 2517.907 3446.454
Z131 2335.590 3303.273
Z132 2287.863 3348.137
Z133 2260.181 3326.182
Z134 2069.273 3184.910
Z135 2239.181 3407.318
Z136 2178.090 3475.090
Z137 2125.591 3513.272
Z138 2008.182 3439.772
Z139 1634.002 3368.182
Z140 1574.821 3330.955
Z141 1610.139 3246.001
Z142 1564.321 3223.092
Z143 2994.222 2145.416
Z144 3025.722 2144.461
Z145 3054.358 2117.734
Z146 2960.813 2200.779
Z147 2933.132 2228.461
Z148 2895.905 2253.279
Z149 2863.450 2279.052
Z150 3204.301 1937.508
Z151 3287.777 1834.953
Z152 3241.030 1703.777
Z153 3220.519 1929.876
Z154 3099.838 1854.510
Z155 3003.960 1737.644
Z156 2874.693 1798.701
Z157 3086.482 1861.188
Z158 3063.109 1882.176
Z159 3004.914 1893.624
Z160 2956.737 1948.956
Z161 3535.818 1989.501
Z162 3830.043 2117.823
Z163 3779.453 2237.141
Z164 3670.635 2539.730

Z165 3629.590 2555.002
Z166 4059.133 2197.050
Z167 4065.815 2337.367
Z168 3851.043 1637.689
Z169 3872.043 1595.690
Z170 3973.224 1632.917
Z171 3792.816 1424.827
Z172 3819.543 1337.964
Z173 4015.224 1407.645
Z174 4050.542 1310.282
Z175 4071.542 1274.010
Z176 4325.450 1920.233
Z177 4489.631 1936.460
Z178 4604.175 2001.369
Z179 4310.177 1903.051
Z180 4270.086 1881.097
Z181 4222.359 1984.187
Z182 4211.859 2018.551
Z183 4371.268 2110.187
Z184 4490.585 1690.189
Z185 4463.858 1475.417
Z186 4504.903 1533.644
Z187 4538.312 1518.372
Z188 4670.039 1582.326
Z189 4838.038 1652.962
Z190 4838.038 1818.097
Z191 4776.947 1886.824
Z192 5150.172 1851.506
Z193 5206.490 1783.734
Z194 5417.444 1516.463
Z195 5631.261 1557.508
Z196 5772.533 1345.600
Z197 5821.214 1304.555
Z198 5875.623 1253.964
Z199 4987.900 1022.011
Z200 5130.127 1054.465
Z201 5181.672 1086.920
Z202 4895.310 1011.511
Z203 4991.719 817.739
Z204 4942.083 783.376
Z205 4697.720 1047.783
Z206 4733.993 1054.465
Z207 4773.129 1064.011
Z208 4540.221 967.602
Z209 4592.721 864.512
Z210 4482.949 674.558
Z211 4502.040 1044.920
Z212 4097.116 864.972
Z213 4167.752 742.791
Z214 4177.298 712.246
Z215 4353.887 399.157
Z216 4289.933 370.521
Z217 4238.388 361.930
Z218 4254.615 322.794
Z219 4039.844 968.063

Z220 3912.890 687.428
Z221 3809.800 705.564
Z222 3797.391 760.927
Z223 3750.618 977.608
Z224 3725.800 1061.608
Z225 3690.482 580.519
Z226 3757.300 452.611
Z227 3867.072 500.338
Z228 3910.026 450.702
Z229 3805.027 264.567
Z230 3716.255 238.794
Z231 3680.937 231.158
Z232 3435.620 494.611
Z233 3398.393 474.565
Z234 3288.621 418.248
Z235 3229.439 445.929
Z236 3165.485 358.112
Z237 3096.758 257.885
Z238 3349.711 1229.607
Z239 3236.121 1246.788
Z240 3317.257 1300.243
Z241 3387.893 1347.970
Z242 3428.938 1445.333
Z243 3376.438 1529.332
Z244 3490.983 1599.014
Z245 3466.165 1651.513
Z246 3377.393 1161.834
Z247 3398.393 1099.789
Z248 3425.120 1012.926
Z249 3474.756 904.109
Z250 3462.347 825.836
Z251 2901.077 726.564
Z252 2921.123 787.655
Z253 2938.304 833.473
Z254 2863.850 536.611
Z255 2818.987 598.656
Z256 2759.805 663.564
Z257 2754.078 510.838
Z258 2718.760 511.792
Z259 2682.488 511.792
Z260 2650.988 522.292
Z261 2878.168 480.293
Z262 2986.031 414.429
Z263 2774.123 108.022
Z264 2895.350 107.067
Z265 3008.940 97.522
Z266 2747.396 66.977
Z267 2606.124 56.477
Z268 2484.898 82.249
Z269 2454.353 117.567
Z270 2389.444 93.704
Z271 2853.350 974.744
Z272 2913.486 1028.199
Z273 2865.759 1137.971
Z274 2187.081 1232.470

Z275 2317.853 1180.925
Z276 2387.535 1167.562
Z277 2470.580 1223.879
Z278 2496.352 1172.334
Z279 2607.079 1113.153
Z280 2624.261 1370.879
Z281 2275.854 1488.287
Z282 2392.307 1603.786
Z283 2352.217 1640.059
Z284 2501.125 1809.013
Z285 2442.898 1861.512
Z286 2407.580 1919.739
Z287 2362.717 1961.739
Z288 2330.262 1997.057
Z289 2251.035 2077.238
Z290 1579.644 879.377
Z291 1522.371 822.104
Z292 1537.644 670.332
Z293 1549.099 472.743
Z294 1730.461 598.742
Z295 1759.097 562.469
Z296 1796.324 588.242
Z297 1564.371 345.789
Z298 1574.871 291.380
Z299 1604.462 224.562
Z300 2318.458 1017.785
Z301 2264.049 739.059
Z302 2301.276 688.469
Z303 2350.912 635.014
Z304 2351.867 584.424
Z305 2307.958 493.742
Z306 2475.957 355.334
Z307 2281.231 434.561
Z308 1992.005 237.926
Z309 1369.645 955.740
Z310 1316.191 989.149
Z311 1360.100 1126.603
Z312 1319.054 914.695
Z313 1909.915 1369.056
Z314 1880.324 1418.692
Z315 1824.006 1516.055
Z316 1749.552 1468.328
Z317 1858.370 1582.873
Z318 1785.825 1693.599
Z319 1735.234 1841.553
Z320 1782.006 1845.371
Z321 1504.235 1646.827
I1 1202.601 1965.643
I2 1068.965 1867.326
I3 1095.692 1826.281
I4 1036.511 1737.508
I5 996.420 1590.509
I6 968.738 1580.964
I7 885.693 2026.734
I8 783.557 1877.826

I9 696.694 1809.099
I10 603.149 1907.416
I11 658.513 2293.051
I12 631.785 2327.414
I13 249.969 2294.960
I14 229.924 2277.778
I15 237.560 2159.415
I23 899.057 2601.367
I22 962.056 2566.049
I21 964.920 2464.868
I20 1149.146 2267.278
I19 1283.736 2120.279
I18 1313.327 2157.506
I17 1356.281 2094.506
I16 1422.145 2156.551
I24 1666.507 2552.686
I25 1618.780 2734.048
I26 1734.279 2819.002
I27 1519.508 2999.410
I28 1507.099 2494.459
I29 1432.645 2532.640
I30 1356.281 2671.049
I31 1284.691 2798.957
I32 1276.100 2828.548
I33 1213.100 2895.366
I34 1073.738 2793.230
I35 1905.142 2509.731
I36 1881.279 2549.822
I37 1840.233 2419.050
I38 1824.961 2388.505
I39 1778.188 2409.505
I40 1664.598 2249.142
I41 1628.325 2286.369
I42 1623.553 2249.142
I43 2167.641 2702.548
I44 2125.641 2729.276
I45 2124.686 2902.047
I46 1992.005 2879.138
I47 1971.005 2118.370
I48 2020.641 2198.551
I49 2054.050 2212.869
I50 2203.913 2419.050
I51 2265.958 2414.277
I52 2369.049 2373.232
I53 2383.367 2354.141
I54 2451.139 2363.687
I55 2535.139 2431.459
I56 2629.638 2399.005
I57 2665.911 2362.732
I58 2687.865 2339.823
I59 2613.655 2473.815
I60 2582.173 2535.825
I61 2548.306 2574.462
I62 2506.807 2533.917
I63 2701.424 2676.541

I64 2636.045 2834.063
I65 1568.209 3205.877
I66 1620.708 3231.650
I67 1564.391 3352.877
I68 1662.708 3359.558
I69 2002.524 3414.922
I70 2119.933 3535.194
I71 2198.205 3490.330
I72 2259.296 3424.467
I73 2280.296 3304.195
I74 2241.160 3348.104
I75 2053.115 3168.650
I76 2325.159 3286.059
I77 2386.250 3293.695
I78 2549.476 3447.376
I79 2526.567 3475.058
I80 2578.112 3086.560
I81 2735.611 3152.423
I82 2799.566 3047.424
I83 2807.202 3117.105
I84 2941.792 3181.059
I85 2977.110 3257.423
I86 3177.563 3091.333
I87 3184.245 2957.697
I88 2827.247 2992.060
I89 2995.246 2743.880
I90 2963.746 2688.517
I91 3035.337 2652.244
I92 3259.654 2585.426
I93 3291.154 2568.245
I94 3314.063 2423.154
I95 3369.426 2295.246
I96 2916.019 2385.927
I97 2849.892 2266.542
I98 2886.164 2236.951
I99 2920.528 2213.087
I100 2949.164 2187.315
I101 2987.345 2130.042
I102 3037.936 2158.679
I103 3070.390 2130.042
I104 2930.073 1947.725
I105 2952.982 1968.725
I106 3007.391 1921.953
I107 3051.300 1861.817
I108 3099.027 1882.816
I109 3074.209 1844.635
I110 2855.619 1806.453
I111 3000.709 1713.863
I112 3186.844 1948.680
I113 3270.844 1819.817
I114 3227.890 1680.454
I115 3508.524 2004.043
I116 3524.752 1970.634
I117 3557.206 1959.180
I118 3628.796 2580.585

I119 3663.160
I120 3806.341
I121 3858.841
I122 3824.477
I123 4051.658
I124 4082.203
I125 4084.112
I126 3366.360
I127 3217.451
I128 3305.269
I129 3404.541
I130 3452.268
I131 3358.723
I132 3520.995
I133 3493.313
I134 3452.268
I135 3399.769
I136 3419.814
I137 3442.723
I138 3449.405
I139 3499.995
I140 3483.768
I141 2836.590
I142 2827.044
I143 2887.180
I144 2940.635
I145 2891.953
I146 2198.957
I147 2324.002
I148 2385.092
I149 2456.683
I150 2643.773
I151 2515.864
I152 2626.591
I153 2254.320
I154 2393.683
I155 2427.092
I156 2414.683
I157 2321.138
I158 2471.001
I159 2422.319
I160 2387.001
I161 2342.138
I162 2312.547
I163 2233.320
I164 2011.867
I165 1971.776
I166 1936.458
I167 2056.730
I168 2345.002
I169 2201.821
I170 2171.275
I171 2245.729
I172 2275.320
I173 2299.184

2514.722
2252.223
2102.361
2087.088
2167.269
2198.769
2358.177
1240.178
1256.405
1314.632
1328.950
1446.358
1545.631
1591.449
1566.631
1671.630
1171.451
1109.406
1036.861
1005.361
901.316
812.544
993.906
962.407
1026.361
1029.224
1159.996
1245.905
1202.951
1190.542
1244.951
1383.359
1182.905
1119.906
1484.540
1561.858
1586.676
1625.812
1642.994
1806.220
1844.402
1898.811
1941.765
1984.719
2069.673
1204.860
1172.405
1143.769
983.407
1013.952
928.998
892.725
721.863
677.954
657.908

I174 2376.501
I175 2380.320
I176 2287.762
I177 2503.764
I178 2305.669
I179 1963.199
I180 1372.271
I181 1293.928
I182 1348.768
I183 1374.509
I184 1308.478
I185 1442.779
I186 1609.538
I187 1495.381
I188 1555.817
I189 1712.502
I190 1742.720
I191 1758.389
I192 1822.182
I193 1521.122
I194 1593.869
I195 1546.863
I196 1561.413
I197 1628.564
I198 1879.261
I199 1854.639
I200 1733.767
I201 1882.618
I202 1888.214
I203 1874.784
I204 1803.156
I205 1556.936
I206 1573.724
I207 1504.335
I208 1730.409
I209 1821.063
I210 3832.964
I211 3889.282
I212 3901.691
I213 4000.963
I214 3818.646
I215 3833.919
I216 4031.508
I217 4070.644
I218 4070.644
I219 4103.099
I220 4376.097
I221 4189.962
I222 4195.689
I223 4226.235
I224 4251.053
I225 4300.689
I226 4492.551
I227 4522.142
I228 4626.187

644.545
584.409
499.584
341.779
416.764
235.457
1149.829
976.356
996.501
932.707
892.417
861.080
891.298
812.955
678.653
623.813
628.290
535.398
591.357
466.008
355.209
297.012
265.675
213.073
1351.282
1403.883
1452.008
1576.237
1600.859
1623.243
1711.658
1700.467
1727.327
1616.528
1872.821
1845.960
1629.554
1558.918
1581.827
1634.327
1431.964
1370.874
1431.964
1328.874
1246.783
1260.147
2132.597
2027.597
1972.234
1957.916
1886.325
1920.689
1905.416
1924.507
2013.279

I229 4509.733
I230 4554.596
I231 4487.779
I232 4453.415
I233 4653.869
I234 4675.823
I235 4861.958
I236 4718.777
I237 4759.822
I238 4816.140
I239 5130.184
I240 5165.502
I241 5188.411
I242 5219.911
I243 5434.682
I244 5386.955
I245 5437.546
I246 5607.454
I247 5644.681
I248 5756.362
I249 5806.953
I250 5862.316
I251 4950.731
I252 5003.230
I253 5198.911
I254 5143.548
I255 4968.867
I256 5013.730
I257 4944.049
I258 4985.094
I259 4658.641
I260 4672.005
I261 4697.777
I262 4728.323
I263 4775.095
I264 4478.233
I265 4501.142
I266 4523.097
I267 4520.233
I268 4569.869
I269 4476.324
I270 4014.944
I271 4068.398
I272 4060.762
I273 4181.988
I274 4196.306
I275 4206.806
I276 4384.351
I277 4301.306
I278 4216.352
I279 4234.488
I280 3922.353
I281 3735.264
I282 3758.173
I283 3785.854

1693.508
1508.327
1548.418
1457.737
1569.418
1545.555
1653.418
1753.644
1902.553
1810.917
1893.962
1892.053
1763.190
1760.326
1574.191
1550.327
1526.464
1578.963
1578.963
1326.010
1288.783
1236.283
762.832
799.104
1077.830
1033.921
1008.148
1029.148
1067.330
1080.693
1046.330
1074.966
1088.330
1092.148
1092.148
1032.012
1027.239
949.921
978.558
854.467
695.059
979.526
847.799
879.299
775.254
753.300
716.073
385.802
347.620
376.256
301.802
662.618
1090.252
1061.616
996.708

I284 3832.627
I285 3841.218
I286 3712.355
I287 3723.809
I288 3863.172
I289 3887.035
I290 3920.444
I291 3718.082
I292 3719.991
I293 3748.627
I294 3823.081
I295 3717.127
I296 3669.400
I297 3449.856
I298 3419.311
I299 3394.493
I300 3285.675
I301 3236.994
I302 3186.403
I303 3109.085
I304 3032.722
I305 3031.767
I306 2913.404
I307 2776.905
I308 2756.860
I309 2601.270
I310 2482.907
I311 2448.543
I312 2378.862
I313 2643.270
I314 2677.633
I315 2716.769
I316 2752.087
I317 2754.951
I318 2850.405
I319 2891.450
I320 2986.904
I321 3013.631
I322 2921.041
I323 2900.995
I324 2873.314
I325 2892.405
I326 2919.132
S1 1424.674

769.527
705.573
589.119
568.119
531.846
524.210
423.983
456.438
429.711
414.438
245.484
264.575
254.075
473.620
457.392
440.211
393.438
427.802
347.620
240.712
118.531
82.258
83.213
84.167
46.940
35.486
56.485
136.667
113.758
504.165
493.665
494.619
493.665
682.664
517.528
496.528
394.393
406.802
840.163
791.481
716.073
698.891
695.073
1729.486

[RESERVOIRS]

; ID Head
S1 10

Pattern

;

[PUMPS]

; ID Node1
P1 S1
P2 S1
P3 S1
P4 S1

Node2
Z52
Z52
Z52
Z52

Parameters
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;

[VALVES]

;ID	Node1	Node2	Diameter	Type	Setting	MinorLoss
-----	-------	-------	----------	------	---------	-----------

[PIPES]

;ID	Node1	Node2	Length	Diameter	Roughness	MinorLoss	Status
R1	Z1	Z4	376.99	500	0.15	1.8	Open ;
R2	Z1	Z3	36.23	500	0.15	1.8	Open ;
R3	Z4	Z30	158.87	500	0.15	0	Open ;
R4	Z30	Z29	511.94	400	0.15	0	Open ;
R5	Z29	Z28	434.27	400	0.15	0	Open ;
R6	Z28	Z27	287.35	312.8	0.015	0	Open ;
R7	Z27	Z26	776.86	312.8	0.015	0	Open ;
R8	Z26	Z25	386.60	312.8	0.015	0	Open ;
R9	Z25	Z24	215.34	312.8	0.015	0	Open ;
R10	Z24	Z23	301.23	312.8	0.015	0	Open ;
R11	Z23	Z22	483.92	312.8	0.015	0	Open ;
R12	Z22	Z21	165.41	312.8	0.015	0	Open ;
R13	Z21	Z20	432.52	312.8	0.015	0	Open ;
R14	Z20	Z19	589.94	312.8	0.015	0	Open ;
R15	Z19	Z18	288.16	312.8	0.015	0	Open ;
R16	Z18	Z17	195.48	312.8	0.015	0	Open ;
R17	Z17	Z16	639.32	312.8	0.015	0	Open ;
R18	Z16	Z15	449.15	312.8	0.015	0	Open ;
R19	Z15	Z14	322.70	312.8	0.015	0	Open ;
R20	Z14	Z13	121.51	312.8	0.015	0	Open ;
R21	Z13	Z12	176.09	312.8	0.015	0	Open ;
R22	Z12	Z11	283.53	400	0.15	0	Open ;
R23	Z11	Z10	623.06	400	0.15	0	Open ;
R24	Z10	Z9	252.99	400	0.15	0	Open ;
R25	Z9	Z8	161.10	400	0.15	0	Open ;
R26	Z8	Z7	965.02	400	0.15	0	Open ;
R27	Z7	Z6	174.34	400	0.15	0	Open ;
R28	Z6	Z2	733.02	500	0.15	0	Open ;
R29	Z2	Z3	295.18	500	0.15	0	Open ;
R30	Z17	Z31	20.64	277.6	0.015	1.8	Open ;
R31	Z31	Z32	131.11	277.6	0.015	0	Open ;
R32	Z32	Z33	193.47	277.6	0.015	0	Open ;
R33	Z33	Z34	130.26	277.6	0.015	0	Open ;

R34	Z34	Z35	378.35	277.6	0.015	0	Open ;
R35	Z35	Z36	399.85	277.6	0.015	0	Open ;
R36	Z36	Z37	45.95	277.6	0.015	0	Open ;
R39	Z39	Z40	159.80	277.6	0.015	0	Open ;
R40	Z40	Z16	93.15	277.6	0.015	1.8	Open ;
R41	Z25	Z41	102.26	312.8	0.015	1.8	Open ;
R42	Z41	Z42	180.32	312.8	0.015	0	Open ;
R43	Z42	Z44	302.32	277.6	0.015	0	Open ;
R44	Z44	Z45	64.21	277.6	0.015	0	Open ;
R45	Z45	Z46	36.74	277.6	0.015	0	Open ;
R46	Z46	Z43	156.53	277.6	0.015	0	Open ;
R47	Z9	Z47	121.61	221.2	0.015	1.8	Open ;
R48	Z47	Z48	240.32	221.2	0.015	0	Open ;
R49	Z4	Z49	24.55	197.4	0.015	1.8	Open ;
R50	Z49	Z50	155.79	197.4	0.015	0	Open ;
R51	Z50	Z51	282.48	197.4	0.015	0	Open ;
R52	Z52	Z1	29.23	500	0.15	0	Open ;
R53	Z29	Z53	79.69	197.4	0.015	1.8	Open ;
R54	Z53	Z54	111.39	197.4	0.015	0	Open ;
R55	Z43	Z55	168.27	277.6	0.015	1.8	Open ;
R56	Z55	Z56	81.61	277.6	0.015	0	Open ;
R57	Z56	Z57	122.30	277.6	0.015	0	Open ;
R58	Z57	Z58	248.24	277.6	0.015	0	Open ;
R59	Z58	Z59	408.67	277.6	0.015	0	Open ;
R60	Z48	Z60	42.59	197.4	0.015	1.8	Open ;
R61	Z60	Z61	381.34	197.4	0.015	0	Open ;
R62	Z10	Z62	326.51	197.4	0.015	1.8	Open ;
R63	Z6	Z63	37.20	197.4	0.015	1.8	Open ;
R64	Z63	Z64	65.06	197.4	0.015	0	Open ;
R65	Z64	Z65	27.55	197.4	0.015	1.8	Open ;
R66	Z65	Z66	197.52	197.4	0.015	0	Open ;
R67	Z66	Z67	159.32	197.4	0.015	0	Open ;
R68	Z64	Z68	593.09	197.4	0.015	0	Open ;
R69	Z68	Z69	73.39	197.4	0.015	0	Open ;
R71	Z50	Z70	19.58	141	0.015	1.8	Open ;
R72	Z70	Z71	52.37	141	0.015	0	Open ;
R73	Z71	Z72	134.03	141	0.015	0	Open ;
R74	Z72	Z73	272.89	141	0.015	0	Open ;

R75	Z51	Z74	21.33	141	0.015	1.8	Open	;
R76	Z74	Z75	171.77	141	0.015	1.8	Open	;
R77	Z75	Z76	100.49	141	0.015	0	Open	;
R78	Z76	Z77	113.17	141	0.015	0	Open	;
R79	Z74	Z78	388.18	141	0.015	0	Open	;
R80	Z78	Z79	41.68	141	0.015	0	Open	;
R81	Z79	Z80	492.04	141	0.015	0	Open	;
R82	Z80	Z81	136.69	141	0.015	0	Open	;
R83	Z30	Z82	28.20	141	0.015	1.8	Open	;
R84	Z82	Z83	210.10	141	0.015	0	Open	;
R85	Z83	Z84	273.85	141	0.015	0	Open	;
R86	Z84	Z85	100.05	141	0.015	0	Open	;
R87	Z85	Z86	44.57	141	0.015	0	Open	;
R88	Z82	Z88	63.06	141	0.015	1.8	Open	;
R89	Z88	Z87	83.04	141	0.015	0	Open	;
R90	Z54	Z94	156.07	141	0.015	1.8	Open	;
R91	Z94	Z93	83.07	141	0.015	0	Open	;
R92	Z93	Z92	187.75	141	0.015	0	Open	;
R93	Z92	Z91	200.47	141	0.015	0	Open	;
R94	Z91	Z90	94.69	141	0.015	0	Open	;
R95	Z90	Z89	132.30	141	0.015	0	Open	;
R96	Z54	Z95	125.84	141	0.015	1.8	Open	;
R97	Z95	Z96	103.76	141	0.015	0	Open	;
R98	Z96	Z97	240.97	141	0.015	0	Open	;
R99	Z28	Z98	29.24	141	0.015	1.8	Open	;
R100	Z98	Z99	145.56	141	0.015	0	Open	;
R101	Z99	Z100	238.71	141	0.015	0	Open	;
R102	Z27	Z101	21.88	141	0.015	1.8	Open	;
R103	Z101	Z102	160.47	141	0.015	0	Open	;
R104	Z102	Z103	54.42	141	0.015	0	Open	;
R105	Z102	Z104	75.70	141	0.015	1.8	Open	;
R106	Z26	Z105	28.55	221.2	0.015	1.8	Open	;
R107	Z105	Z106	105.99	197.4	0.015	0	Open	;
R108	Z106	Z107	133.09	141	0.015	0	Open	;
R109	Z107	Z110	114.87	141	0.015	0	Open	;
R110	Z110	Z111	81.12	141	0.015	0	Open	;
R111	Z107	Z108	472.49	141	0.015	1.8	Open	;
R112	Z108	Z109	82.44	141	0.015	0	Open	;

R113	Z105	Z112	46.30	197.4	0.015	1.8	Open	;
R114	Z112	Z113	49.61	141	0.015	0	Open	;
R115	Z113	Z114	65.69	141	0.015	0	Open	;
R116	Z114	Z115	30.56	141	0.015	0	Open	;
R117	Z115	Z116	187.17	141	0.015	0	Open	;
R118	Z116	Z117	152.14	141	0.015	0	Open	;
R119	Z112	Z118	39.18	141	0.015	1.8	Open	;
R120	Z118	Z119	57.41	141	0.015	0	Open	;
R121	Z119	Z120	27.68	141	0.015	0	Open	;
R122	Z42	Z121	207.55	141	0.015	1.8	Open	;
R123	Z121	Z122	148.77	141	0.015	0	Open	;
R124	Z122	Z123	127.14	141	0.015	0	Open	;
R125	Z124	Z125	129.31	141	0.015	0	Open	;
R126	Z125	Z126	246.99	141	0.015	0	Open	;
R127	Z126	Z127	60.88	141	0.015	0	Open	;
R128	Z127	Z128	133.26	141	0.015	0	Open	;
R129	Z56	Z128	33.52	141	0.015	1.8	Open	;
R130	Z59	Z129	27.91	141	0.015	1.8	Open	;
R131	Z129	Z130	199.21	141	0.015	0	Open	;
R132	Z59	Z131	20.63	277.6	0.015	1.8	Open	;
R133	Z131	Z132	65.50	277.6	0.015	0	Open	;
R134	Z132	Z133	35.33	141	0.015	1.8	Open	;
R135	Z133	Z134	237.49	141	0.015	0	Open	;
R136	Z132	Z135	76.63	221.2	0.015	0	Open	;
R137	Z135	Z136	91.24	221.2	0.015	0	Open	;
R138	Z136	Z137	70.66	221.2	0.015	0	Open	;
R139	Z137	Z138	138.52	221.2	0.015	0	Open	;
R140	Z138	Z139	474.00	221.2	0.015	0	Open	;
R141	Z139	Z140	161.81	221.2	0.015	0	Open	;
R142	Z140	Z141	100.63	141	0.015	0	Open	;
R143	Z141	Z142	51.23	141	0.015	0	Open	;
R144	Z24	Z143	18.52	141	0.015	1.8	Open	;
R145	Z143	Z144	31.51	141	0.015	1.8	Open	;
R146	Z144	Z145	39.17	141	0.015	0	Open	;
R147	Z143	Z146	67.46	141	0.015	0	Open	;
R148	Z146	Z147	39.15	141	0.015	0	Open	;
R149	Z147	Z148	44.74	141	0.015	0	Open	;
R150	Z148	Z149	41.44	141	0.015	0	Open	;

R151	Z150	Z23	22.15	141	0.015	1.8	Open	;
R152	Z150	Z153	17.92	141	0.015	1.8	Open	;
R153	Z153	Z151	116.34	141	0.015	0	Open	;
R154	Z151	Z152	177.89	141	0.015	0	Open	;
R155	Z150	Z154	144.12	141	0.015	0	Open	;
R156	Z154	Z155	151.16	141	0.015	0	Open	;
R157	Z155	Z156	143.30	141	0.015	0	Open	;
R158	Z154	Z157	14.93	141	0.015	1.8	Open	;
R159	Z157	Z158	31.41	141	0.015	0	Open	;
R160	Z158	Z159	75.87	141	0.015	0	Open	;
R161	Z159	Z160	73.37	141	0.015	0	Open	;
R162	Z22	Z161	23.71	141	0.015	1.8	Open	;
R163	Z21	Z162	186.92	141	0.015	1.8	Open	;
R164	Z162	Z163	129.60	141	0.015	1.8	Open	;
R165	Z163	Z164	430.09	141	0.015	0	Open	;
R166	Z164	Z165	43.79	141	0.015	0	Open	;
R167	Z162	Z166	242.40	141	0.015	0	Open	;
R168	Z166	Z167	143.47	141	0.015	0	Open	;
R169	Z20	Z168	13.72	197.4	0.015	1.8	Open	;
R170	Z168	Z169	46.96	197.4	0.015	0	Open	;
R171	Z169	Z170	108.21	141	0.015	1.8	Open	;
R172	Z169	Z171	252.22	197.4	0.015	0	Open	;
R173	Z171	Z172	90.88	141	0.015	0	Open	;
R174	Z172	Z173	208.23	141	0.015	0	Open	;
R175	Z173	Z174	103.57	141	0.015	0	Open	;
R176	Z174	Z175	41.91	141	0.015	0	Open	;
R177	Z19	Z176	26.61	197.4	0.015	1.8	Open	;
R178	Z176	Z179	22.99	141	0.015	1.8	Open	;
R179	Z179	Z180	45.71	141	0.015	0	Open	;
R180	Z176	Z177	176.45	141	0.015	1.8	Open	;
R181	Z177	Z178	131.66	141	0.015	0	Open	;
R182	Z176	Z181	185.32	141	0.015	0	Open	;
R183	Z181	Z182	35.93	141	0.015	0	Open	;
R184	Z182	Z183	183.87	141	0.015	0	Open	;
R185	Z18	Z184	21.45	141	0.015	1.8	Open	;
R186	Z31	Z187	17.99	141	0.015	1.8	Open	;
R187	Z187	Z186	36.73	141	0.015	0	Open	;
R188	Z186	Z185	91.70	141	0.015	0	Open	;

R189	Z32	Z188	17.39	141	0.015	1.8	Open	;
R190	Z188	Z189	214.03	141	0.015	0	Open	;
R191	Z34	Z190	16.51	141	0.015	1.8	Open	;
R192	Z190	Z191	91.95	141	0.015	0	Open	;
R193	Z35	Z192	18.55	141	0.015	1.8	Open	;
R194	Z192	Z193	88.12	141	0.015	0	Open	;
R195	Z37	Z194	21.70	221.2	0.015	1.8	Open	;
R196	Z194	Z195	304.20	221.2	0.015	0	Open	;
R197	Z195	Z196	254.68	221.2	0.015	0	Open	;
R198	Z196	Z197	154.03	141	0.015	0	Open	;
R199	Z197	Z198	74.29	141	0.015	0	Open	;
R200	Z38	Z199	20.82	141	0.015	1.8	Open	;
R201	Z199	Z200	198.07	141	0.015	0	Open	;
R202	Z200	Z201	61.79	141	0.015	0	Open	;
R203	Z38	Z202	100.55	277.6	0.015	0	Open	;
R204	Z202	Z39	249.63	277.6	0.015	0	Open	;
R205	Z202	Z203	216.43	141	0.015	1.8	Open	;
R206	Z203	Z204	60.37	141	0.015	0	Open	;
R207	Z39	Z205	17.80	141	0.015	1.8	Open	;
R208	Z205	Z206	36.88	141	0.015	0	Open	;
R209	Z206	Z207	40.28	141	0.015	0	Open	;
R210	Z40	Z208	17.66	141	0.015	1.8	Open	;
R211	Z208	Z209	115.69	141	0.015	0	Open	;
R212	Z209	Z210	291.13	141	0.015	0	Open	;
R213	Z16	Z211	21.66	141	0.015	1.8	Open	;
R214	Z15	Z212	16.25	197.4	0.015	1.8	Open	;
R215	Z212	Z219	117.93	141	0.015	1.8	Open	;
R216	Z212	Z213	141.13	197.4	0.015	0	Open	;
R217	Z213	Z214	33.48	197.4	0.015	0	Open	;
R218	Z214	Z215	375.87	197.4	0.015	0	Open	;
R219	Z215	Z216	70.07	141	0.015	0	Open	;
R220	Z216	Z217	52.26	141	0.015	0	Open	;
R221	Z217	Z218	42.37	141	0.015	0	Open	;
R222	Z14	Z220	20.17	141	0.015	1.8	Open	;
R223	Z13	Z221	18.14	141	0.015	1.8	Open	;
R224	Z221	Z222	56.74	141	0.015	0	Open	;
R225	Z222	Z223	222.95	141	0.015	0	Open	;
R226	Z223	Z224	212.85	141	0.015	0	Open	;

R227	Z12	Z225	23.45	197.4	0.015	1.8	Open	;
R228	Z225	Z226	144.31	197.4	0.015	0	Open	;
R229	Z226	Z229	194.01	141	0.015	0	Open	;
R230	Z229	Z230	146.49	141	0.015	0	Open	;
R231	Z230	Z231	36.13	141	0.015	0	Open	;
R232	Z226	Z227	119.70	141	0.015	1.8	Open	;
R233	Z227	Z228	88.55	141	0.015	0	Open	;
R234	Z11	Z232	25.97	141	0.015	1.8	Open	;
R235	Z232	Z233	42.28	141	0.015	0	Open	;
R236	Z233	Z234	123.38	141	0.015	0	Open	;
R237	Z234	Z235	89.55	141	0.015	0	Open	;
R238	Z235	Z236	117.34	141	0.015	0	Open	;
R239	Z236	Z237	121.53	141	0.015	0	Open	;
R240	Z62	Z238	15.70	141	0.015	1.8	Open	;
R241	Z238	Z239	163.82	141	0.015	0	Open	;
R242	Z239	Z240	97.16	141	0.015	0	Open	;
R243	Z240	Z241	85.25	141	0.015	0	Open	;
R244	Z241	Z242	144.60	141	0.015	0	Open	;
R245	Z242	Z243	99.06	141	0.015	0	Open	;
R246	Z243	Z244	134.07	141	0.015	0	Open	;
R247	Z244	Z245	58.07	141	0.015	0	Open	;
R248	Z62	Z246	57.55	141	0.015	1.8	Open	;
R249	Z246	Z247	65.50	141	0.015	0	Open	;
R250	Z247	Z248	90.88	141	0.015	0	Open	;
R251	Z248	Z249	123.03	141	0.015	0	Open	;
R252	Z249	Z250	106.83	141	0.015	0	Open	;
R253	Z47	Z251	21.24	141	0.015	1.8	Open	;
R254	Z251	Z252	64.30	141	0.015	0	Open	;
R255	Z252	Z253	48.96	141	0.015	0	Open	;
R256	Z48	Z254	22.76	141	0.015	1.8	Open	;
R257	Z254	Z255	76.57	141	0.015	0	Open	;
R258	Z255	Z256	96.29	141	0.015	0	Open	;
R259	Z255	Z257	109.65	141	0.015	1.8	Open	;
R260	Z257	Z258	35.33	141	0.015	0	Open	;
R261	Z258	Z259	36.27	141	0.015	0	Open	;
R262	Z259	Z260	33.20	141	0.015	0	Open	;
R263	Z60	Z261	21.13	141	0.015	1.8	Open	;
R264	Z261	Z262	126.38	141	0.015	0	Open	;

R265	Z61	Z263	21.78	141	0.015	1.8	Open	;
R266	Z263	Z264	176.17	141	0.015	0	Open	;
R267	Z264	Z265	113.99	141	0.015	0	Open	;
R268	Z61	Z266	56.13	141	0.015	1.8	Open	;
R269	Z266	Z267	164.61	141	0.015	0	Open	;
R270	Z267	Z268	194.42	141	0.015	0	Open	;
R271	Z268	Z269	80.35	141	0.015	0	Open	;
R272	Z269	Z270	93.18	141	0.015	0	Open	;
R273	Z8	Z271	24.62	141	0.015	1.8	Open	;
R274	Z271	Z272	80.46	141	0.015	0	Open	;
R275	Z272	Z273	139.79	141	0.015	0	Open	;
R276	Z7	Z274	17.00	141	0.015	1.8	Open	;
R277	Z274	Z275	142.61	141	0.015	1.8	Open	;
R278	Z275	Z276	70.95	141	0.015	0	Open	;
R279	Z276	Z277	100.34	141	0.015	0	Open	;
R280	Z277	Z280	212.67	141	0.015	1.8	Open	;
R281	Z277	Z278	57.63	141	0.015	0	Open	;
R282	Z278	Z279	145.20	141	0.015	0	Open	;
R283	Z274	Z281	345.62	197.4	0.015	0	Open	;
R284	Z281	Z282	164.02	141	0.015	0	Open	;
R285	Z282	Z283	54.06	141	0.015	0	Open	;
R286	Z283	Z284	225.21	141	0.015	0	Open	;
R287	Z284	Z285	78.40	141	0.015	0	Open	;
R288	Z285	Z286	88.42	141	0.015	0	Open	;
R289	Z286	Z287	62.84	141	0.015	0	Open	;
R290	Z287	Z288	47.97	141	0.015	0	Open	;
R291	Z288	Z289	112.72	141	0.015	0	Open	;
R292	Z69	Z290	62.74	141	0.015	1.8	Open	;
R293	Z69	Z291	21.78	197.4	0.015	1.8	Open	;
R294	Z291	Z292	213.78	197.4	0.015	0	Open	;
R295	Z292	Z293	241.55	197.4	0.015	0	Open	;
R296	Z293	Z294	220.84	141	0.015	1.8	Open	;
R297	Z294	Z295	46.21	141	0.015	0	Open	;
R298	Z295	Z296	45.28	141	0.015	0	Open	;
R299	Z293	Z297	127.87	141	0.015	0	Open	;
R300	Z297	Z298	56.12	141	0.015	0	Open	;
R301	Z298	Z299	73.08	141	0.015	0	Open	;
R302	Z67	Z300	164.85	141	0.015	1.8	Open	;

R303	Z67	Z301	229.85	141	0.015	1.8	Open	;
R304	Z301	Z302	62.81	141	0.015	0	Open	;
R305	Z302	Z303	72.95	141	0.015	0	Open	;
R306	Z303	Z304	57.99	141	0.015	0	Open	;
R307	Z304	Z305	100.75	141	0.015	0	Open	;
R308	Z305	Z306	217.67	141	0.015	1.8	Open	;
R309	Z305	Z307	64.94	141	0.015	0	Open	;
R310	Z307	Z308	454.50	141	0.015	0	Open	;
R311	Z68	Z309	122.36	141	0.015	1.8	Open	;
R312	Z309	Z312	65.15	141	0.015	1.8	Open	;
R313	Z309	Z310	63.04	141	0.015	0	Open	;
R314	Z310	Z311	144.30	141	0.015	0	Open	;
R315	Z63	Z313	168.16	141	0.015	1.8	Open	;
R316	Z313	Z314	57.79	141	0.015	0	Open	;
R317	Z314	Z315	112.48	141	0.015	0	Open	;
R318	Z315	Z316	88.44	141	0.015	1.8	Open	;
R319	Z315	Z317	96.05	141	0.015	0	Open	;
R320	Z317	Z318	132.38	141	0.015	0	Open	;
R321	Z2	Z319	16.60	141	0.015	1.8	Open	;
R322	Z319	Z320	46.93	141	0.015	0	Open	;
R323	Z3	Z321	90.37	141	0.015	1.8	Open	;
R326	Z77	I10	5	96.8	0.015	0	Open	;
R327	Z76	I9	5	96.8	0.015	0	Open	;
R328	Z75	I8	5	96.8	0.015	0	Open	;
R329	Z74	I7	5	96.8	0.015	0	Open	;
R330	Z78	I11	5	96.8	0.015	0	Open	;
R331	Z79	I12	5	96.8	0.015	0	Open	;
R332	Z80	I13	5	96.8	0.015	0	Open	;
R333	Z80	I14	5	96.8	0.015	0	Open	;
R334	Z81	I15	5	96.8	0.015	0	Open	;
R335	Z70	I2	5	96.8	0.015	0	Open	;
R336	Z71	I3	5	96.8	0.015	0	Open	;
R337	Z72	I4	5	96.8	0.015	0	Open	;
R338	Z73	I5	5	96.8	0.015	0	Open	;
R339	Z73	I6	5	96.8	0.015	0	Open	;
R340	Z49	I1	5	96.8	0.015	0	Open	;
R341	Z86	I23	5	96.8	0.015	0	Open	;
R342	Z85	I22	5	96.8	0.015	0	Open	;

R343	Z84	I21	5	96.8	0.015	0	Open	;
R344	Z83	I20	5	96.8	0.015	0	Open	;
R345	Z82	I18	5	96.8	0.015	0	Open	;
R346	Z82	I19	5	96.8	0.015	0	Open	;
R347	Z88	I17	5	96.8	0.015	0	Open	;
R348	Z87	I16	5	96.8	0.015	0	Open	;
R349	Z53	I24	5	96.8	0.015	0	Open	;
R350	Z95	I25	5	96.8	0.015	0	Open	;
R351	Z96	I26	5	96.8	0.015	0	Open	;
R352	Z97	I27	5	96.8	0.015	0	Open	;
R353	Z94	I28	5	96.8	0.015	0	Open	;
R354	Z93	I29	5	96.8	0.015	0	Open	;
R355	Z92	I30	5	96.8	0.015	0	Open	;
R356	Z91	I31	5	96.8	0.015	0	Open	;
R357	Z91	I32	5	96.8	0.015	0	Open	;
R358	Z90	I33	5	96.8	0.015	0	Open	;
R359	Z89	I34	5	96.8	0.015	0	Open	;
R360	Z98	I35	5	96.8	0.015	0	Open	;
R361	Z98	I36	5	96.8	0.015	0	Open	;
R362	Z99	I37	5	96.8	0.015	0	Open	;
R363	Z99	I38	5	96.8	0.015	0	Open	;
R364	Z99	I39	5	96.8	0.015	0	Open	;
R365	Z100	I40	5	96.8	0.015	0	Open	;
R366	Z100	I42	5	96.8	0.015	0	Open	;
R367	Z100	I41	5	96.8	0.015	0	Open	;
R368	Z101	I43	5	96.8	0.015	0	Open	;
R369	Z101	I44	5	96.8	0.015	0	Open	;
R370	Z104	I45	5	96.8	0.015	0	Open	;
R371	Z103	I46	5	96.8	0.015	0	Open	;
R372	Z109	I47	5	96.8	0.015	0	Open	;
R373	Z108	I48	5	96.8	0.015	0	Open	;
R374	Z108	I49	5	96.8	0.015	0	Open	;
R375	Z111	I50	5	96.8	0.015	0	Open	;
R376	Z110	I51	5	96.8	0.015	0	Open	;
R377	Z107	I53	5	96.8	0.015	0	Open	;
R378	Z107	I52	5	96.8	0.015	0	Open	;
R379	Z106	I54	5	96.8	0.015	0	Open	;
R380	Z105	I55	5	96.8	0.015	0	Open	;

R381	Z113	I59	5	96.8	0.015	0	Open	;
R382	Z114	I60	5	96.8	0.015	0	Open	;
R383	Z115	I62	5	96.8	0.015	0	Open	;
R384	Z115	I61	5	96.8	0.015	0	Open	;
R385	Z116	I63	5	96.8	0.015	0	Open	;
R386	Z117	I64	5	96.8	0.015	0	Open	;
R387	Z118	I56	5	96.8	0.015	0	Open	;
R388	Z119	I57	5	96.8	0.015	0	Open	;
R389	Z120	I58	5	96.8	0.015	0	Open	;
R390	Z142	I65	5	96.8	0.015	0	Open	;
R391	Z141	I66	5	96.8	0.015	0	Open	;
R392	Z140	I67	5	96.8	0.015	0	Open	;
R393	Z139	I68	5	96.8	0.015	0	Open	;
R394	Z138	I69	5	96.8	0.015	0	Open	;
R395	Z137	I70	5	96.8	0.015	0	Open	;
R396	Z136	I71	5	96.8	0.015	0	Open	;
R397	Z135	I72	5	96.8	0.015	0	Open	;
R398	Z134	I75	5	96.8	0.015	0	Open	;
R399	Z133	I74	5	96.8	0.015	0	Open	;
R400	Z133	I73	5	96.8	0.015	0	Open	;
R401	Z131	I76	5	96.8	0.015	0	Open	;
R402	Z129	I77	5	96.8	0.015	0	Open	;
R403	Z130	I78	5	96.8	0.015	0	Open	;
R404	Z130	I79	5	96.8	0.015	0	Open	;
R405	Z58	I80	5	96.8	0.015	0	Open	;
R406	Z57	I81	5	96.8	0.015	0	Open	;
R407	Z56	I82	5	96.8	0.015	0	Open	;
R408	Z128	I83	5	96.8	0.015	0	Open	;
R409	Z127	I84	5	96.8	0.015	0	Open	;
R410	Z126	I85	5	96.8	0.015	0	Open	;
R411	Z125	I86	5	96.8	0.015	0	Open	;
R412	Z124	I87	5	96.8	0.015	0	Open	;
R413	Z55	I88	5	96.8	0.015	0	Open	;
R414	Z46	I89	5	96.8	0.015	0	Open	;
R415	Z45	I90	5	96.8	0.015	0	Open	;
R416	Z44	I91	5	96.8	0.015	0	Open	;
R417	Z121	I92	5	96.8	0.015	0	Open	;
R418	Z121	I93	5	96.8	0.015	0	Open	;

R419	Z122	I94	5	96.8	0.015	0	Open	;
R420	Z123	I95	5	96.8	0.015	0	Open	;
R421	Z41	I96	5	96.8	0.015	0	Open	;
R422	Z149	I97	5	96.8	0.015	0	Open	;
R423	Z148	I98	5	96.8	0.015	0	Open	;
R424	Z147	I99	5	96.8	0.015	0	Open	;
R425	Z146	I100	5	96.8	0.015	0	Open	;
R426	Z143	I101	5	96.8	0.015	0	Open	;
R427	Z144	I102	5	96.8	0.015	0	Open	;
R428	Z145	I103	5	96.8	0.015	0	Open	;
R429	Z160	I105	5	96.8	0.015	0	Open	;
R430	Z160	I104	5	96.8	0.015	0	Open	;
R431	Z159	I106	5	96.8	0.015	0	Open	;
R432	Z158	I107	5	96.8	0.015	0	Open	;
R433	Z157	I109	5	96.8	0.015	0	Open	;
R434	Z157	I108	5	96.8	0.015	0	Open	;
R435	Z156	I110	5	96.8	0.015	0	Open	;
R436	Z155	I111	5	96.8	0.015	0	Open	;
R437	Z150	I112	5	96.8	0.015	0	Open	;
R438	Z151	I113	5	96.8	0.015	0	Open	;
R439	Z152	I114	5	96.8	0.015	0	Open	;
R440	Z161	I115	5	96.8	0.015	0	Open	;
R441	Z161	I116	5	96.8	0.015	0	Open	;
R442	Z161	I117	5	96.8	0.015	0	Open	;
R443	Z165	I118	5	96.8	0.015	0	Open	;
R444	Z164	I119	5	96.8	0.015	0	Open	;
R445	Z163	I120	5	96.8	0.015	0	Open	;
R446	Z162	I122	5	96.8	0.015	0	Open	;
R447	Z162	I121	5	96.8	0.015	0	Open	;
R448	Z166	I123	5	96.8	0.015	0	Open	;
R449	Z166	I124	5	96.8	0.015	0	Open	;
R450	Z167	I125	5	96.8	0.015	0	Open	;
R451	Z238	I126	5	96.8	0.015	0	Open	;
R452	Z239	I127	5	96.8	0.015	0	Open	;
R453	Z240	I128	5	96.8	0.015	0	Open	;
R454	Z241	I129	5	96.8	0.015	0	Open	;
R455	Z242	I130	5	96.8	0.015	0	Open	;
R456	Z243	I131	5	96.8	0.015	0	Open	;

R457	Z244	I133	5	96.8	0.015	0	Open	;
R458	Z244	I132	5	96.8	0.015	0	Open	;
R459	Z245	I134	5	96.8	0.015	0	Open	;
R460	Z246	I135	5	96.8	0.015	0	Open	;
R461	Z247	I136	5	96.8	0.015	0	Open	;
R462	Z248	I137	5	96.8	0.015	0	Open	;
R463	Z248	I138	5	96.8	0.015	0	Open	;
R464	Z249	I139	5	96.8	0.015	0	Open	;
R465	Z250	I140	5	96.8	0.015	0	Open	;
R466	Z271	I142	5	96.8	0.015	0	Open	;
R467	Z271	I141	5	96.8	0.015	0	Open	;
R468	Z272	I143	5	96.8	0.015	0	Open	;
R469	Z272	I144	5	96.8	0.015	0	Open	;
R470	Z273	I145	5	96.8	0.015	0	Open	;
R471	Z274	I146	5	96.8	0.015	0	Open	;
R472	Z275	I147	5	96.8	0.015	0	Open	;
R473	Z276	I148	5	96.8	0.015	0	Open	;
R474	Z277	I149	5	96.8	0.015	0	Open	;
R475	Z280	I150	5	96.8	0.015	0	Open	;
R476	Z278	I151	5	96.8	0.015	0	Open	;
R477	Z279	I152	5	96.8	0.015	0	Open	;
R478	Z281	I153	5	96.8	0.015	0	Open	;
R479	Z282	I154	5	96.8	0.015	0	Open	;
R480	Z282	I155	5	96.8	0.015	0	Open	;
R481	Z282	I156	5	96.8	0.015	0	Open	;
R482	Z283	I157	5	96.8	0.015	0	Open	;
R483	Z284	I158	5	96.8	0.015	0	Open	;
R484	Z285	I159	5	96.8	0.015	0	Open	;
R485	Z286	I160	5	96.8	0.015	0	Open	;
R486	Z287	I161	5	96.8	0.015	0	Open	;
R487	Z288	I162	5	96.8	0.015	0	Open	;
R488	Z289	I163	5	96.8	0.015	0	Open	;
R489	Z63	I164	5	96.8	0.015	0	Open	;
R490	Z65	I165	5	96.8	0.015	0	Open	;
R491	Z65	I166	5	96.8	0.015	0	Open	;
R492	Z66	I167	5	96.8	0.015	0	Open	;
R493	Z67	I169	5	96.8	0.015	0	Open	;
R494	Z67	I170	5	96.8	0.015	0	Open	;

R495	Z300	I168	5	96.8	0.015	0	Open	;
R496	Z301	I171	5	96.8	0.015	0	Open	;
R497	Z302	I172	5	96.8	0.015	0	Open	;
R498	Z302	I173	5	96.8	0.015	0	Open	;
R499	Z303	I174	5	96.8	0.015	0	Open	;
R500	Z304	I175	5	96.8	0.015	0	Open	;
R501	Z305	I176	5	96.8	0.015	0	Open	;
R502	Z306	I177	5	96.8	0.015	0	Open	;
R503	Z307	I178	5	96.8	0.015	0	Open	;
R504	Z308	I179	5	96.8	0.015	0	Open	;
R505	Z311	I180	5	96.8	0.015	0	Open	;
R506	Z310	I181	5	96.8	0.015	0	Open	;
R507	Z310	I182	5	96.8	0.015	0	Open	;
R508	Z309	I183	5	96.8	0.015	0	Open	;
R509	Z312	I184	5	96.8	0.015	0	Open	;
R510	Z68	I185	5	96.8	0.015	0	Open	;
R511	Z290	I186	5	96.8	0.015	0	Open	;
R512	Z291	I187	5	96.8	0.015	0	Open	;
R513	Z292	I188	5	96.8	0.015	0	Open	;
R514	Z293	I193	5	96.8	0.015	0	Open	;
R515	Z294	I189	5	96.8	0.015	0	Open	;
R516	Z294	I190	5	96.8	0.015	0	Open	;
R517	Z295	I191	5	96.8	0.015	0	Open	;
R518	Z296	I192	5	96.8	0.015	0	Open	;
R519	Z297	I194	5	96.8	0.015	0	Open	;
R520	Z298	I195	5	96.8	0.015	0	Open	;
R521	Z298	I196	5	96.8	0.015	0	Open	;
R522	Z299	I197	5	96.8	0.015	0	Open	;
R523	Z313	I198	5	96.8	0.015	0	Open	;
R524	Z314	I199	5	96.8	0.015	0	Open	;
R525	Z316	I200	5	96.8	0.015	0	Open	;
R526	Z317	I201	5	96.8	0.015	0	Open	;
R527	Z317	I202	5	96.8	0.015	0	Open	;
R528	Z317	I203	5	96.8	0.015	0	Open	;
R529	Z318	I204	5	96.8	0.015	0	Open	;
R530	Z320	I209	5	96.8	0.015	0	Open	;
R531	Z319	I208	5	96.8	0.015	0	Open	;
R532	Z3	I206	5	96.8	0.015	0	Open	;

R533	Z3	I205	5	96.8	0.015	0	Open	;
R534	Z321	I207	5	96.8	0.015	0	Open	;
R535	Z168	I210	5	96.8	0.015	0	Open	;
R536	Z170	I213	5	96.8	0.015	0	Open	;
R537	Z169	I212	5	96.8	0.015	0	Open	;
R538	Z169	I211	5	96.8	0.015	0	Open	;
R539	Z171	I214	5	96.8	0.015	0	Open	;
R540	Z172	I215	5	96.8	0.015	0	Open	;
R541	Z173	I216	5	96.8	0.015	0	Open	;
R542	Z174	I217	5	96.8	0.015	0	Open	;
R543	Z175	I218	5	96.8	0.015	0	Open	;
R544	Z175	I219	5	96.8	0.015	0	Open	;
R545	Z183	I220	5	96.8	0.015	0	Open	;
R546	Z182	I221	5	96.8	0.015	0	Open	;
R547	Z181	I223	5	96.8	0.015	0	Open	;
R548	Z181	I222	5	96.8	0.015	0	Open	;
R549	Z179	I225	5	96.8	0.015	0	Open	;
R550	Z180	I224	5	96.8	0.015	0	Open	;
R551	Z177	I226	5	96.8	0.015	0	Open	;
R552	Z177	I227	5	96.8	0.015	0	Open	;
R553	Z178	I228	5	96.8	0.015	0	Open	;
R554	Z184	I229	5	96.8	0.015	0	Open	;
R555	Z186	I231	5	96.8	0.015	0	Open	;
R556	Z185	I232	5	96.8	0.015	0	Open	;
R557	Z187	I230	5	96.8	0.015	0	Open	;
R558	Z188	I233	5	96.8	0.015	0	Open	;
R559	Z188	I234	5	96.8	0.015	0	Open	;
R560	Z189	I235	5	96.8	0.015	0	Open	;
R561	Z33	I236	5	96.8	0.015	0	Open	;
R562	Z191	I237	5	96.8	0.015	0	Open	;
R563	Z190	I238	5	96.8	0.015	0	Open	;
R566	Z193	I241	5	96.8	0.015	0	Open	;
R567	Z193	I242	5	96.8	0.015	0	Open	;
R568	Z192	I240	5	96.8	0.015	0	Open	;
R569	Z192	I239	5	96.8	0.015	0	Open	;
R570	Z36	I243	5	96.8	0.015	0	Open	;
R571	Z36	I244	5	96.8	0.015	0	Open	;
R572	Z194	I245	5	96.8	0.015	0	Open	;

R573	Z195	I246	5	96.8	0.015	0	Open	;
R574	Z195	I247	5	96.8	0.015	0	Open	;
R575	Z196	I248	5	96.8	0.015	0	Open	;
R576	Z197	I249	5	96.8	0.015	0	Open	;
R577	Z198	I250	22.13	96.8	0.015	0	Open	;
R578	Z204	I251	5	96.8	0.015	0	Open	;
R579	Z203	I252	5	96.8	0.015	0	Open	;
R580	Z38	I258	5	96.8	0.015	0	Open	;
R581	Z38	I257	5	96.8	0.015	0	Open	;
R582	Z199	I256	5	96.8	0.015	0	Open	;
R583	Z199	I255	5	96.8	0.015	0	Open	;
R584	Z200	I254	5	96.8	0.015	0	Open	;
R585	Z201	I253	5	96.8	0.015	0	Open	;
R586	Z205	I259	5	96.8	0.015	0	Open	;
R587	Z205	I260	5	96.8	0.015	0	Open	;
R588	Z205	I261	5	96.8	0.015	0	Open	;
R589	Z206	I262	5	96.8	0.015	0	Open	;
R590	Z207	I263	5	96.8	0.015	0	Open	;
R591	Z211	I264	5	96.8	0.015	0	Open	;
R592	Z211	I265	5	96.8	0.015	0	Open	;
R593	Z208	I267	5	96.8	0.015	0	Open	;
R594	Z208	I266	5	96.8	0.015	0	Open	;
R595	Z209	I268	5	96.8	0.015	0	Open	;
R596	Z210	I269	5	96.8	0.015	0	Open	;
R597	Z219	I270	5	96.8	0.015	0	Open	;
R598	Z212	I272	5	96.8	0.015	0	Open	;
R599	Z212	I271	5	96.8	0.015	0	Open	;
R600	Z213	I273	5	96.8	0.015	0	Open	;
R601	Z213	I274	5	96.8	0.015	0	Open	;
R602	Z214	I275	5	96.8	0.015	0	Open	;
R603	Z215	I276	5	96.8	0.015	0	Open	;
R604	Z216	I277	5	96.8	0.015	0	Open	;
R605	Z217	I278	5	96.8	0.015	0	Open	;
R606	Z218	I279	5	96.8	0.015	0	Open	;
R607	Z220	I280	5	96.8	0.015	0	Open	;
R608	Z224	I281	5	96.8	0.015	0	Open	;
R609	Z224	I282	5	96.8	0.015	0	Open	;
R610	Z223	I283	5	96.8	0.015	0	Open	;

R611	Z222	I284	5	96.8	0.015	0	Open	;
R612	Z221	I285	5	96.8	0.015	0	Open	;
R613	Z225	I286	5	96.8	0.015	0	Open	;
R614	Z225	I287	5	96.8	0.015	0	Open	;
R615	Z226	I291	5	96.8	0.015	0	Open	;
R616	Z226	I292	5	96.8	0.015	0	Open	;
R617	Z226	I293	5	96.8	0.015	0	Open	;
R618	Z227	I288	5	96.8	0.015	0	Open	;
R619	Z227	I289	5	96.8	0.015	0	Open	;
R620	Z228	I290	5	96.8	0.015	0	Open	;
R621	Z229	I294	5	96.8	0.015	0	Open	;
R622	Z230	I295	5	96.8	0.015	0	Open	;
R623	Z231	I296	5	96.8	0.015	0	Open	;
R624	Z232	I297	5	96.8	0.015	0	Open	;
R625	Z233	I298	5	96.8	0.015	0	Open	;
R626	Z233	I299	5	96.8	0.015	0	Open	;
R627	Z234	I300	5	96.8	0.015	0	Open	;
R628	Z235	I301	5	96.8	0.015	0	Open	;
R629	Z236	I302	5	96.8	0.015	0	Open	;
R630	Z237	I303	5	96.8	0.015	0	Open	;
R631	Z265	I304	5	96.8	0.015	0	Open	;
R632	Z265	I305	5	96.8	0.015	0	Open	;
R633	Z264	I306	5	96.8	0.015	0	Open	;
R634	Z263	I307	5	96.8	0.015	0	Open	;
R635	Z266	I308	5	96.8	0.015	0	Open	;
R636	Z267	I309	5	96.8	0.015	0	Open	;
R637	Z268	I310	5	96.8	0.015	0	Open	;
R638	Z269	I311	5	96.8	0.015	0	Open	;
R639	Z270	I312	5	96.8	0.015	0	Open	;
R640	Z260	I313	5	96.8	0.015	0	Open	;
R641	Z259	I314	5	96.8	0.015	0	Open	;
R642	Z258	I315	5	96.8	0.015	0	Open	;
R643	Z257	I316	5	96.8	0.015	0	Open	;
R644	Z256	I317	5	96.8	0.015	0	Open	;
R645	Z254	I318	5	96.8	0.015	0	Open	;
R646	Z261	I319	5	96.8	0.015	0	Open	;
R647	Z262	I320	5	96.8	0.015	0	Open	;
R648	Z262	I321	5	96.8	0.015	0	Open	;

R649	Z253	I322	5	96.8	0.015	0	Open	;
R650	Z252	I323	5	96.8	0.015	0	Open	;
R651	Z251	I324	5	96.8	0.015	0	Open	;
R652	Z251	I325	5	96.8	0.015	0	Open	;
R653	Z251	I326	5	96.8	0.015	0	Open	;
R37	Z38	Z37	706.98	277.6	0.015	0	Open	;

;Junction	Demand	Pattern	Category
-----------	--------	---------	----------

[STATUS]

;ID	Status/Setting
P1	Closed

[PATTERNS]

;ID	Multipliers
-----	-------------

[CURVES]

;ID	X-Value	Y-Value
;PUMP: 150l/s - H=80m		
C1	140	85
C1	160	75

[CONTROLS]

[RULES]

[ENERGY]

Global Efficiency	75
Global Price	0
Demand Charge	0

[EMITTERS]

;Junction	Coefficient
-----------	-------------

[QUALITY]

;Node	InitQual
-------	----------

```

[SOURCES]
;Node                Type                Quality                Pattern

[REACTIONS]
;Type                Pipe/Tank                Coefficient

[REACTIONS]
Order Bulk                1
Order Tank                1
Order Wall                1
Global Bulk                0
Global Wall                0
Limiting Potential        0
Roughness Correlation    0

[MIXING]
;Tank                Model

[TIMES]
Duration                0
Hydraulic Timestep      1:00
Quality Timestep        0:05
Pattern Timestep        1:00
Pattern Start           0:00
Report Timestep         1:00
Report Start            0:00
Start ClockTime         12 am
Statistic               None

[REPORT]
Status                Full
Summary              No
Page                 0

[OPTIONS]
Units                LPS
Headloss             D-W

```

```

Specific Gravity        1
Viscosity               1
Trials                 50
Accuracy               0.001
CHECKFREQ              2
MAXCHECK              10
DAMPLIMIT             0
Unbalanced             Continue 10
Pattern               1
Demand Multiplier      1.0
Emitter Exponent       0.5
Quality               None mg/L
Diffusivity           1
Tolerance             0.01

```

```

[LABELS]
;X-Coord                Y-Coord                Label & Anchor Node

```

```

[BACKDROP]
DIMENSIONS      0.000                0.000                6024.792                3581.638
UNITS           Meters
FILE            U:\L A V O R I\FOSSO VECCHIO 38\studio idraulico\epanet_boncellino\boncellino.bmp
OFFSET          0.00                0.00

```

```

[END]

```

1.3 IPOTESI DI FUNZIONAMENTO A

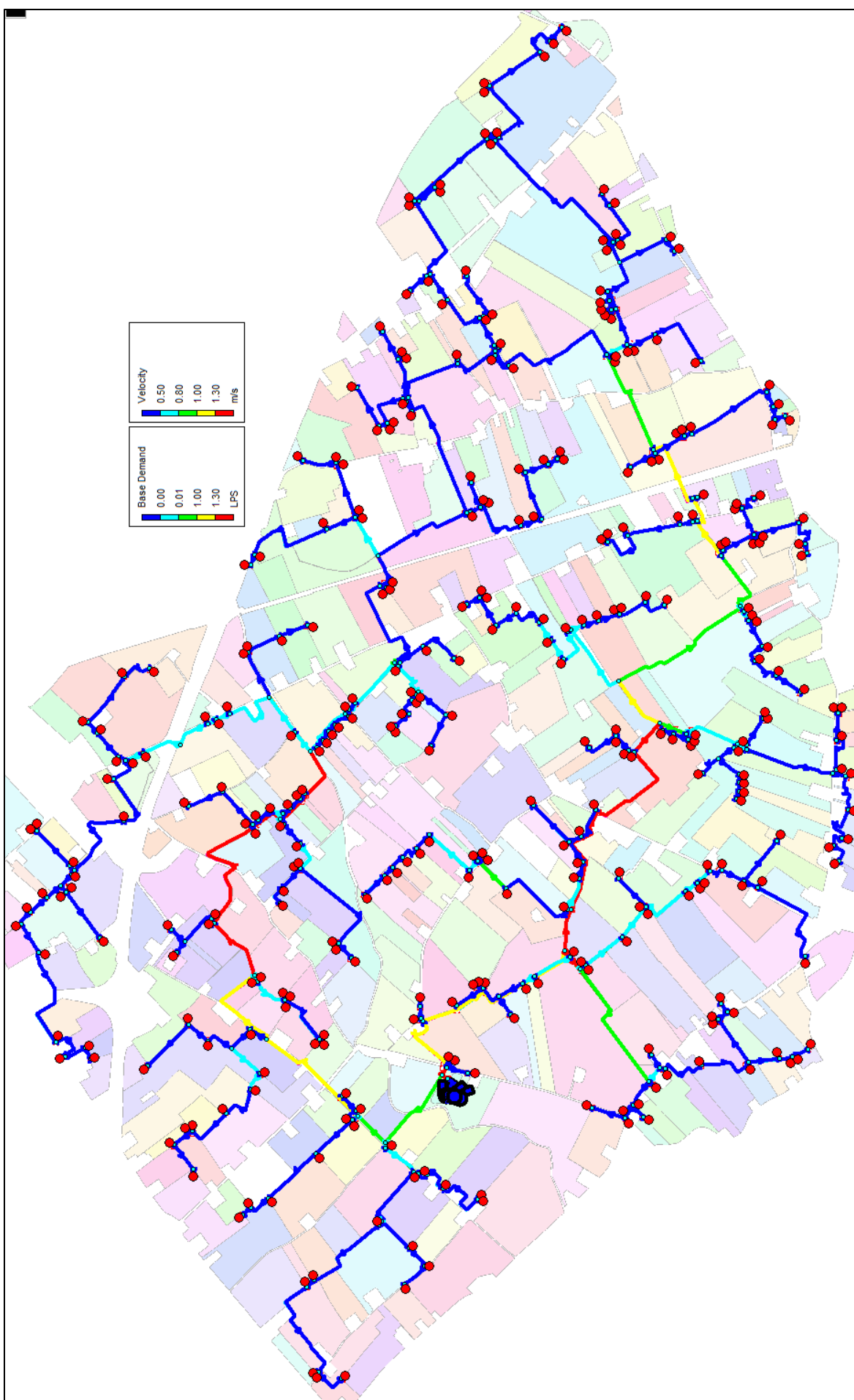


Figura 4 – Risultati della simulazione : base demand nei nodi e velocità nei rami

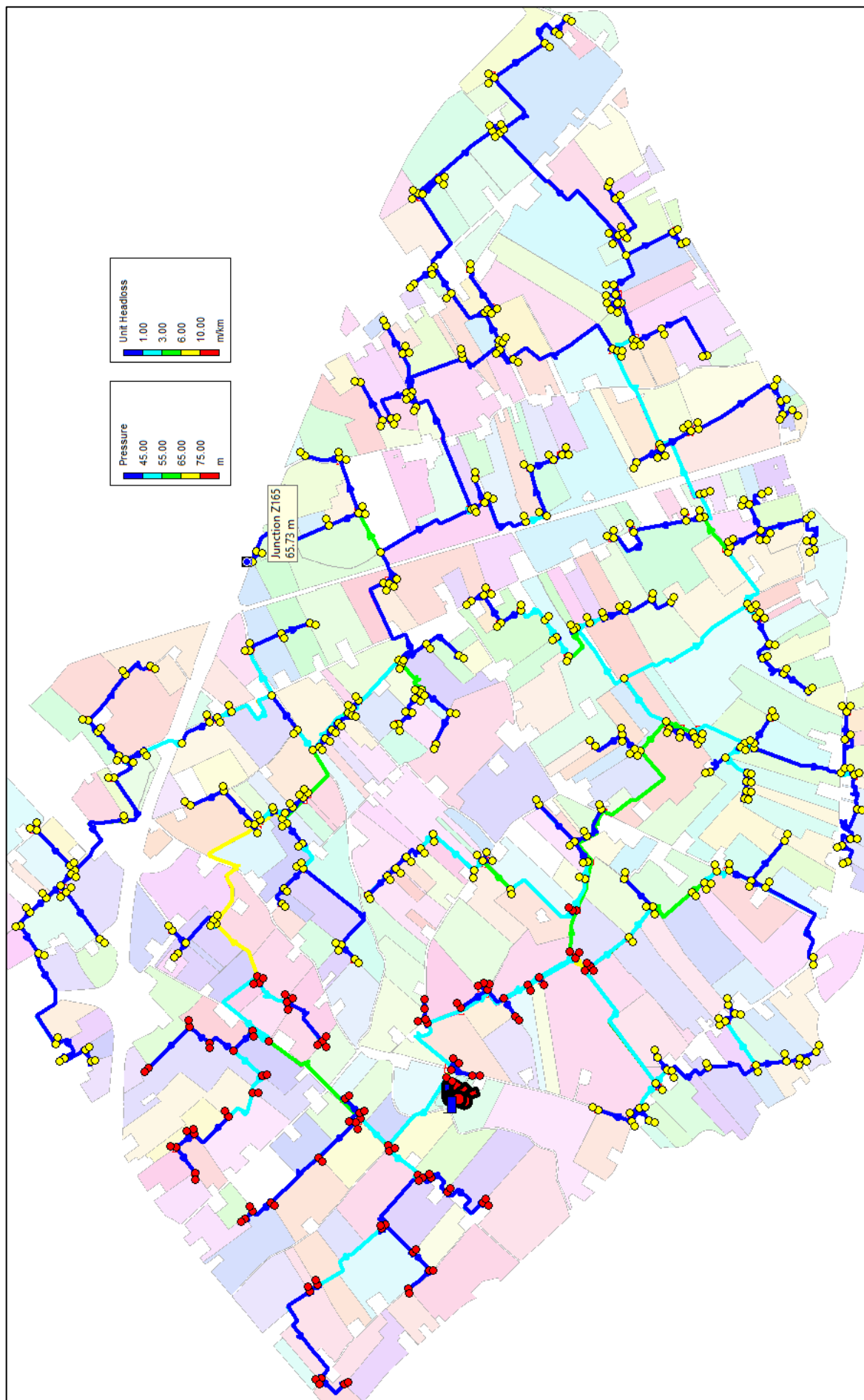


Figura 5 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE BONCELLINO IPOTESI FUNZIONAMENTO A

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
R1	Z1	Z4	376.99	500
R2	Z1	Z3	36.23	500
R3	Z4	Z30	158.87	500
R4	Z30	Z29	511.94	400
R5	Z29	Z28	434.27	400
R6	Z28	Z27	287.35	312.8
R7	Z27	Z26	776.86	312.8
R8	Z26	Z25	386.60	312.8
R9	Z25	Z24	215.34	312.8
R10	Z24	Z23	301.23	312.8
R11	Z23	Z22	483.92	312.8
R12	Z22	Z21	165.41	312.8
R13	Z21	Z20	432.52	312.8
R14	Z20	Z19	589.94	312.8
R15	Z19	Z18	288.16	312.8
R16	Z18	Z17	195.48	312.8
R17	Z17	Z16	639.32	312.8
R18	Z16	Z15	449.15	312.8
R19	Z15	Z14	322.70	312.8
R20	Z14	Z13	121.51	312.8
R21	Z13	Z12	176.09	312.8
R22	Z12	Z11	283.53	400
R23	Z11	Z10	623.06	400
R24	Z10	Z9	252.99	400
R25	Z9	Z8	161.10	400
R26	Z8	Z7	965.02	400
R27	Z7	Z6	174.34	400
R28	Z6	Z2	733.02	500
R29	Z2	Z3	295.18	500
R30	Z17	Z31	20.64	277.6
R31	Z31	Z32	131.11	277.6
R32	Z32	Z33	193.47	277.6
R33	Z33	Z34	130.26	277.6
R34	Z34	Z35	378.35	277.6
R35	Z35	Z36	399.85	277.6
R36	Z36	Z37	45.95	277.6
R39	Z39	Z40	159.80	277.6

Link ID	Start Node	End Node	Length m	Diameter mm
R40	Z40	Z16	93.15	277.6
R41	Z25	Z41	102.26	312.8
R42	Z41	Z42	180.32	312.8
R43	Z42	Z44	302.32	277.6
R44	Z44	Z45	64.21	277.6
R45	Z45	Z46	36.74	277.6
R46	Z46	Z43	156.53	277.6
R47	Z9	Z47	121.61	221.2
R48	Z47	Z48	240.32	221.2
R49	Z4	Z49	24.55	197.4
R50	Z49	Z50	155.79	197.4
R51	Z50	Z51	282.48	197.4
R52	Z52	Z1	29.23	500
R53	Z29	Z53	79.69	197.4
R54	Z53	Z54	111.39	197.4
R55	Z43	Z55	168.27	277.6
R56	Z55	Z56	81.61	277.6
R57	Z56	Z57	122.30	277.6
R58	Z57	Z58	248.24	277.6
R59	Z58	Z59	408.67	277.6
R60	Z48	Z60	42.59	197.4
R61	Z60	Z61	381.34	197.4
R62	Z10	Z62	326.51	197.4
R63	Z6	Z63	37.20	197.4
R64	Z63	Z64	65.06	197.4
R65	Z64	Z65	27.55	197.4
R66	Z65	Z66	197.52	197.4
R67	Z66	Z67	159.32	197.4
R68	Z64	Z68	593.09	197.4
R69	Z68	Z69	73.39	197.4
R71	Z50	Z70	19.58	141
R72	Z70	Z71	52.37	141
R73	Z71	Z72	134.03	141
R74	Z72	Z73	272.89	141
R75	Z51	Z74	21.33	141
R76	Z74	Z75	171.77	141
R77	Z75	Z76	100.49	141
R78	Z76	Z77	113.17	141
R79	Z74	Z78	388.18	141
R80	Z78	Z79	41.68	141
R81	Z79	Z80	492.04	141
R82	Z80	Z81	136.69	141
R83	Z30	Z82	28.20	141
R84	Z82	Z83	210.10	141
R85	Z83	Z84	273.85	141
R86	Z84	Z85	100.05	141
R87	Z85	Z86	44.57	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R88	Z82	Z88	63.06	141
R89	Z88	Z87	83.04	141
R90	Z54	Z94	156.07	141
R91	Z94	Z93	83.07	141
R92	Z93	Z92	187.75	141
R93	Z92	Z91	200.47	141
R94	Z91	Z90	94.69	141
R95	Z90	Z89	132.30	141
R96	Z54	Z95	125.84	141
R97	Z95	Z96	103.76	141
R98	Z96	Z97	240.97	141
R99	Z28	Z98	29.24	141
R100	Z98	Z99	145.56	141
R101	Z99	Z100	238.71	141
R102	Z27	Z101	21.88	141
R103	Z101	Z102	160.47	141
R104	Z102	Z103	54.42	141
R105	Z102	Z104	75.70	141
R106	Z26	Z105	28.55	221.2
R107	Z105	Z106	105.99	197.4
R108	Z106	Z107	133.09	141
R109	Z107	Z110	114.87	141
R110	Z110	Z111	81.12	141
R111	Z107	Z108	472.49	141
R112	Z108	Z109	82.44	141
R113	Z105	Z112	46.30	197.4
R114	Z112	Z113	49.61	141
R115	Z113	Z114	65.69	141
R116	Z114	Z115	30.56	141
R117	Z115	Z116	187.17	141
R118	Z116	Z117	152.14	141
R119	Z112	Z118	39.18	141
R120	Z118	Z119	57.41	141
R121	Z119	Z120	27.68	141
R122	Z42	Z121	207.55	141
R123	Z121	Z122	148.77	141
R124	Z122	Z123	127.14	141
R125	Z124	Z125	129.31	141
R126	Z125	Z126	246.99	141
R127	Z126	Z127	60.88	141
R128	Z127	Z128	133.26	141
R129	Z56	Z128	33.52	141
R130	Z59	Z129	27.91	141
R131	Z129	Z130	199.21	141
R132	Z59	Z131	20.63	277.6
R133	Z131	Z132	65.50	277.6
R134	Z132	Z133	35.33	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R135	Z133	Z134	237.49	141
R136	Z132	Z135	76.63	221.2
R137	Z135	Z136	91.24	221.2
R138	Z136	Z137	70.66	221.2
R139	Z137	Z138	138.52	221.2
R140	Z138	Z139	474.00	221.2
R141	Z139	Z140	161.81	221.2
R142	Z140	Z141	100.63	141
R143	Z141	Z142	51.23	141
R144	Z24	Z143	18.52	141
R145	Z143	Z144	31.51	141
R146	Z144	Z145	39.17	141
R147	Z143	Z146	67.46	141
R148	Z146	Z147	39.15	141
R149	Z147	Z148	44.74	141
R150	Z148	Z149	41.44	141
R151	Z150	Z23	22.15	141
R152	Z150	Z153	17.92	141
R153	Z153	Z151	116.34	141
R154	Z151	Z152	177.89	141
R155	Z150	Z154	144.12	141
R156	Z154	Z155	151.16	141
R157	Z155	Z156	143.30	141
R158	Z154	Z157	14.93	141
R159	Z157	Z158	31.41	141
R160	Z158	Z159	75.87	141
R161	Z159	Z160	73.37	141
R162	Z22	Z161	23.71	141
R163	Z21	Z162	186.92	141
R164	Z162	Z163	129.60	141
R165	Z163	Z164	430.09	141
R166	Z164	Z165	43.79	141
R167	Z162	Z166	242.40	141
R168	Z166	Z167	143.47	141
R169	Z20	Z168	13.72	197.4
R170	Z168	Z169	46.96	197.4
R171	Z169	Z170	108.21	141
R172	Z169	Z171	252.22	197.4
R173	Z171	Z172	90.88	141
R174	Z172	Z173	208.23	141
R175	Z173	Z174	103.57	141
R176	Z174	Z175	41.91	141
R177	Z19	Z176	26.61	197.4
R178	Z176	Z179	22.99	141
R179	Z179	Z180	45.71	141
R180	Z176	Z177	176.45	141
R181	Z177	Z178	131.66	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R182	Z176	Z181	185.32	141
R183	Z181	Z182	35.93	141
R184	Z182	Z183	183.87	141
R185	Z18	Z184	21.45	141
R186	Z31	Z187	17.99	141
R187	Z187	Z186	36.73	141
R188	Z186	Z185	91.70	141
R189	Z32	Z188	17.39	141
R190	Z188	Z189	214.03	141
R191	Z34	Z190	16.51	141
R192	Z190	Z191	91.95	141
R193	Z35	Z192	18.55	141
R194	Z192	Z193	88.12	141
R195	Z37	Z194	21.70	221.2
R196	Z194	Z195	304.20	221.2
R197	Z195	Z196	254.68	221.2
R198	Z196	Z197	154.03	141
R199	Z197	Z198	74.29	141
R200	Z38	Z199	20.82	141
R201	Z199	Z200	198.07	141
R202	Z200	Z201	61.79	141
R203	Z38	Z202	100.55	277.6
R204	Z202	Z39	249.63	277.6
R205	Z202	Z203	216.43	141
R206	Z203	Z204	60.37	141
R207	Z39	Z205	17.80	141
R208	Z205	Z206	36.88	141
R209	Z206	Z207	40.28	141
R210	Z40	Z208	17.66	141
R211	Z208	Z209	115.69	141
R212	Z209	Z210	291.13	141
R213	Z16	Z211	21.66	141
R214	Z15	Z212	16.25	197.4
R215	Z212	Z219	117.93	141
R216	Z212	Z213	141.13	197.4
R217	Z213	Z214	33.48	197.4
R218	Z214	Z215	375.87	197.4
R219	Z215	Z216	70.07	141
R220	Z216	Z217	52.26	141
R221	Z217	Z218	42.37	141
R222	Z14	Z220	20.17	141
R223	Z13	Z221	18.14	141
R224	Z221	Z222	56.74	141
R225	Z222	Z223	222.95	141
R226	Z223	Z224	212.85	141
R227	Z12	Z225	23.45	197.4
R228	Z225	Z226	144.31	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R229	Z226	Z229	194.01	141
R230	Z229	Z230	146.49	141
R231	Z230	Z231	36.13	141
R232	Z226	Z227	119.70	141
R233	Z227	Z228	88.55	141
R234	Z11	Z232	25.97	141
R235	Z232	Z233	42.28	141
R236	Z233	Z234	123.38	141
R237	Z234	Z235	89.55	141
R238	Z235	Z236	117.34	141
R239	Z236	Z237	121.53	141
R240	Z62	Z238	15.70	141
R241	Z238	Z239	163.82	141
R242	Z239	Z240	97.16	141
R243	Z240	Z241	85.25	141
R244	Z241	Z242	144.60	141
R245	Z242	Z243	99.06	141
R246	Z243	Z244	134.07	141
R247	Z244	Z245	58.07	141
R248	Z62	Z246	57.55	141
R249	Z246	Z247	65.50	141
R250	Z247	Z248	90.88	141
R251	Z248	Z249	123.03	141
R252	Z249	Z250	106.83	141
R253	Z47	Z251	21.24	141
R254	Z251	Z252	64.30	141
R255	Z252	Z253	48.96	141
R256	Z48	Z254	22.76	141
R257	Z254	Z255	76.57	141
R258	Z255	Z256	96.29	141
R259	Z255	Z257	109.65	141
R260	Z257	Z260	35.33	141
R261	Z258	Z259	36.27	141
R262	Z259	Z260	33.20	141
R263	Z60	Z261	21.13	141
R264	Z261	Z262	126.38	141
R265	Z61	Z263	21.78	141
R266	Z263	Z264	176.17	141
R267	Z264	Z265	113.99	141
R268	Z61	Z266	56.13	141
R269	Z266	Z267	164.61	141
R270	Z267	Z268	194.42	141
R271	Z268	Z269	80.35	141
R272	Z269	Z270	93.18	141
R273	Z8	Z271	24.62	141
R274	Z271	Z272	80.46	141
R275	Z272	Z273	139.79	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R276	Z7	Z274	17.00	141
R277	Z274	Z275	142.61	141
R278	Z275	Z276	70.95	141
R279	Z276	Z277	100.34	141
R280	Z277	Z280	212.67	141
R281	Z277	Z278	57.63	141
R282	Z278	Z279	145.20	141
R283	Z274	Z281	345.62	197.4
R284	Z281	Z282	164.02	141
R285	Z282	Z283	54.06	141
R286	Z283	Z284	225.21	141
R287	Z284	Z285	78.40	141
R288	Z285	Z286	88.42	141
R289	Z286	Z287	62.84	141
R290	Z287	Z288	47.97	141
R291	Z288	Z289	112.72	141
R292	Z69	Z290	62.74	141
R293	Z69	Z291	21.78	197.4
R294	Z291	Z292	213.78	197.4
R295	Z292	Z293	241.55	197.4
R296	Z293	Z294	220.84	141
R297	Z294	Z295	46.21	141
R298	Z295	Z296	45.28	141
R299	Z293	Z297	127.87	141
R300	Z297	Z298	56.12	141
R301	Z298	Z299	73.08	141
R302	Z67	Z300	164.85	141
R303	Z67	Z301	229.85	141
R304	Z301	Z302	62.81	141
R305	Z302	Z303	72.95	141
R306	Z303	Z304	57.99	141
R307	Z304	Z305	100.75	141
R308	Z305	Z306	217.67	141
R309	Z305	Z307	64.94	141
R310	Z307	Z308	454.50	141
R311	Z68	Z309	122.36	141
R312	Z309	Z312	65.15	141
R313	Z309	Z310	63.04	141
R314	Z310	Z311	144.30	141
R315	Z63	Z313	168.16	141
R316	Z313	Z314	57.79	141
R317	Z314	Z315	112.48	141
R318	Z315	Z316	88.44	141
R319	Z315	Z317	96.05	141
R320	Z317	Z318	132.38	141
R321	Z2	Z319	16.60	141
R322	Z319	Z320	46.93	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R323	Z3	Z321	90.37	141
R326	Z77	I10	5	96.8
R327	Z76	I9	5	96.8
R328	Z75	I8	5	96.8
R329	Z74	I7	5	96.8
R330	Z78	I11	5	96.8
R331	Z79	I12	5	96.8
R332	Z80	I13	5	96.8
R333	Z80	I14	5	96.8
R334	Z81	I15	5	96.8
R335	Z70	I2	5	96.8
R336	Z71	I3	5	96.8
R337	Z72	I4	5	96.8
R338	Z73	I5	5	96.8
R339	Z73	I6	5	96.8
R340	Z49	I1	5	96.8
R341	Z86	I23	5	96.8
R342	Z85	I22	5	96.8
R343	Z84	I21	5	96.8
R344	Z83	I20	5	96.8
R345	Z82	I18	5	96.8
R346	Z82	I19	5	96.8
R347	Z88	I17	5	96.8
R348	Z87	I16	5	96.8
R349	Z53	I24	5	96.8
R350	Z95	I25	5	96.8
R351	Z96	I26	5	96.8
R352	Z97	I27	5	96.8
R353	Z94	I28	5	96.8
R354	Z93	I29	5	96.8
R355	Z92	I30	5	96.8
R356	Z91	I31	5	96.8
R357	Z91	I32	5	96.8
R358	Z90	I33	5	96.8
R359	Z89	I34	5	96.8
R360	Z98	I35	5	96.8
R361	Z98	I36	5	96.8
R362	Z99	I37	5	96.8
R363	Z99	I38	5	96.8
R364	Z99	I39	5	96.8
R365	Z100	I40	5	96.8
R366	Z100	I42	5	96.8
R367	Z100	I41	5	96.8
R368	Z101	I43	5	96.8
R369	Z101	I44	5	96.8
R370	Z104	I45	5	96.8
R371	Z103	I46	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R372	Z109	I47	5	96.8
R373	Z108	I48	5	96.8
R374	Z108	I49	5	96.8
R375	Z111	I50	5	96.8
R376	Z110	I51	5	96.8
R377	Z107	I53	5	96.8
R378	Z107	I52	5	96.8
R379	Z106	I54	5	96.8
R380	Z105	I55	5	96.8
R381	Z113	I59	5	96.8
R382	Z114	I60	5	96.8
R383	Z115	I62	5	96.8
R384	Z115	I61	5	96.8
R385	Z116	I63	5	96.8
R386	Z117	I64	5	96.8
R387	Z118	I56	5	96.8
R388	Z119	I57	5	96.8
R389	Z120	I58	5	96.8
R390	Z142	I65	5	96.8
R391	Z141	I66	5	96.8
R392	Z140	I67	5	96.8
R393	Z139	I68	5	96.8
R394	Z138	I69	5	96.8
R395	Z137	I70	5	96.8
R396	Z136	I71	5	96.8
R397	Z135	I72	5	96.8
R398	Z134	I75	5	96.8
R399	Z133	I74	5	96.8
R400	Z133	I73	5	96.8
R401	Z131	I76	5	96.8
R402	Z129	I77	5	96.8
R403	Z130	I78	5	96.8
R404	Z130	I79	5	96.8
R405	Z58	I80	5	96.8
R406	Z57	I81	5	96.8
R407	Z56	I82	5	96.8
R408	Z128	I83	5	96.8
R409	Z127	I84	5	96.8
R410	Z126	I85	5	96.8
R411	Z125	I86	5	96.8
R412	Z124	I87	5	96.8
R413	Z55	I88	5	96.8
R414	Z46	I89	5	96.8
R415	Z45	I90	5	96.8
R416	Z44	I91	5	96.8
R417	Z121	I92	5	96.8
R418	Z121	I93	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R419	Z122	I94	5	96.8
R420	Z123	I95	5	96.8
R421	Z41	I96	5	96.8
R422	Z149	I97	5	96.8
R423	Z148	I98	5	96.8
R424	Z147	I99	5	96.8
R425	Z146	I100	5	96.8
R426	Z143	I101	5	96.8
R427	Z144	I102	5	96.8
R428	Z145	I103	5	96.8
R429	Z160	I105	5	96.8
R430	Z160	I104	5	96.8
R431	Z159	I106	5	96.8
R432	Z158	I107	5	96.8
R433	Z157	I109	5	96.8
R434	Z157	I108	5	96.8
R435	Z156	I110	5	96.8
R436	Z155	I111	5	96.8
R437	Z150	I112	5	96.8
R438	Z151	I113	5	96.8
R439	Z152	I114	5	96.8
R440	Z161	I115	5	96.8
R441	Z161	I116	5	96.8
R442	Z161	I117	5	96.8
R443	Z165	I118	5	96.8
R444	Z164	I119	5	96.8
R445	Z163	I120	5	96.8
R446	Z162	I122	5	96.8
R447	Z162	I121	5	96.8
R448	Z166	I123	5	96.8
R449	Z166	I124	5	96.8
R450	Z167	I125	5	96.8
R451	Z238	I126	5	96.8
R452	Z239	I127	5	96.8
R453	Z240	I128	5	96.8
R454	Z241	I129	5	96.8
R455	Z242	I130	5	96.8
R456	Z243	I131	5	96.8
R457	Z244	I133	5	96.8
R458	Z244	I132	5	96.8
R459	Z245	I134	5	96.8
R460	Z246	I135	5	96.8
R461	Z247	I136	5	96.8
R462	Z248	I137	5	96.8
R463	Z248	I138	5	96.8
R464	Z249	I139	5	96.8
R465	Z250	I140	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R466	Z271	I142	5	96.8
R467	Z271	I141	5	96.8
R468	Z272	I143	5	96.8
R469	Z272	I144	5	96.8
R470	Z273	I145	5	96.8
R471	Z274	I146	5	96.8
R472	Z275	I147	5	96.8
R473	Z276	I148	5	96.8
R474	Z277	I149	5	96.8
R475	Z280	I150	5	96.8
R476	Z278	I151	5	96.8
R477	Z279	I152	5	96.8
R478	Z281	I153	5	96.8
R479	Z282	I154	5	96.8
R480	Z282	I155	5	96.8
R481	Z282	I156	5	96.8
R482	Z283	I157	5	96.8
R483	Z284	I158	5	96.8
R484	Z285	I159	5	96.8
R485	Z286	I160	5	96.8
R486	Z287	I161	5	96.8
R487	Z288	I162	5	96.8
R488	Z289	I163	5	96.8
R489	Z63	I164	5	96.8
R490	Z65	I165	5	96.8
R491	Z65	I166	5	96.8
R492	Z66	I167	5	96.8
R493	Z67	I169	5	96.8
R494	Z67	I170	5	96.8
R495	Z300	I168	5	96.8
R496	Z301	I171	5	96.8
R497	Z302	I172	5	96.8
R498	Z302	I173	5	96.8
R499	Z303	I174	5	96.8
R500	Z304	I175	5	96.8
R501	Z305	I176	5	96.8
R502	Z306	I177	5	96.8
R503	Z307	I178	5	96.8
R504	Z308	I179	5	96.8
R505	Z311	I180	5	96.8
R506	Z310	I181	5	96.8
R507	Z310	I182	5	96.8
R508	Z309	I183	5	96.8
R509	Z312	I184	5	96.8
R510	Z68	I185	5	96.8
R511	Z290	I186	5	96.8
R512	Z291	I187	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R513	Z292	I188	5	96.8
R514	Z293	I193	5	96.8
R515	Z294	I189	5	96.8
R516	Z294	I190	5	96.8
R517	Z295	I191	5	96.8
R518	Z296	I192	5	96.8
R519	Z297	I194	5	96.8
R520	Z298	I195	5	96.8
R521	Z298	I196	5	96.8
R522	Z299	I197	5	96.8
R523	Z313	I198	5	96.8
R524	Z314	I199	5	96.8
R525	Z316	I200	5	96.8
R526	Z317	I201	5	96.8
R527	Z317	I202	5	96.8
R528	Z317	I203	5	96.8
R529	Z318	I204	5	96.8
R530	Z320	I209	5	96.8
R531	Z319	I208	5	96.8
R532	Z3	I206	5	96.8
R533	Z3	I205	5	96.8
R534	Z321	I207	5	96.8
R535	Z168	I210	5	96.8
R536	Z170	I213	5	96.8
R537	Z169	I212	5	96.8
R538	Z169	I211	5	96.8
R539	Z171	I214	5	96.8
R540	Z172	I215	5	96.8
R541	Z173	I216	5	96.8
R542	Z174	I217	5	96.8
R543	Z175	I218	5	96.8
R544	Z175	I219	5	96.8
R545	Z183	I220	5	96.8
R546	Z182	I221	5	96.8
R547	Z181	I223	5	96.8
R548	Z181	I222	5	96.8
R549	Z179	I225	5	96.8
R550	Z180	I224	5	96.8
R551	Z177	I226	5	96.8
R552	Z177	I227	5	96.8
R553	Z178	I228	5	96.8
R554	Z184	I229	5	96.8
R555	Z186	I231	5	96.8
R556	Z185	I232	5	96.8
R557	Z187	I230	5	96.8
R558	Z188	I233	5	96.8
R559	Z188	I234	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R560	Z189	I235	5	96.8
R561	Z33	I236	5	96.8
R562	Z191	I237	5	96.8
R563	Z190	I238	5	96.8
R566	Z193	I241	5	96.8
R567	Z193	I242	5	96.8
R568	Z192	I240	5	96.8
R569	Z192	I239	5	96.8
R570	Z36	I243	5	96.8
R571	Z36	I244	5	96.8
R572	Z194	I245	5	96.8
R573	Z195	I246	5	96.8
R574	Z195	I247	5	96.8
R575	Z196	I248	5	96.8
R576	Z197	I249	5	96.8
R577	Z198	I250	22.13	96.8
R578	Z204	I251	5	96.8
R579	Z203	I252	5	96.8
R580	Z38	I258	5	96.8
R581	Z38	I257	5	96.8
R582	Z199	I256	5	96.8
R583	Z199	I255	5	96.8
R584	Z200	I254	5	96.8
R585	Z201	I253	5	96.8
R586	Z205	I259	5	96.8
R587	Z205	I260	5	96.8
R588	Z205	I261	5	96.8
R589	Z206	I262	5	96.8
R590	Z207	I263	5	96.8
R591	Z211	I264	5	96.8
R592	Z211	I265	5	96.8
R593	Z208	I267	5	96.8
R594	Z208	I266	5	96.8
R595	Z209	I268	5	96.8
R596	Z210	I269	5	96.8
R597	Z219	I270	5	96.8
R598	Z212	I272	5	96.8
R599	Z212	I271	5	96.8
R600	Z213	I273	5	96.8
R601	Z213	I274	5	96.8
R602	Z214	I275	5	96.8
R603	Z215	I276	5	96.8
R604	Z216	I277	5	96.8
R605	Z217	I278	5	96.8
R606	Z218	I279	5	96.8
R607	Z220	I280	5	96.8
R608	Z224	I281	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R609	Z224	I282	5	96.8
R610	Z223	I283	5	96.8
R611	Z222	I284	5	96.8
R612	Z221	I285	5	96.8
R613	Z225	I286	5	96.8
R614	Z225	I287	5	96.8
R615	Z226	I291	5	96.8
R616	Z226	I292	5	96.8
R617	Z226	I293	5	96.8
R618	Z227	I288	5	96.8
R619	Z227	I289	5	96.8
R620	Z228	I290	5	96.8
R621	Z229	I294	5	96.8
R622	Z230	I295	5	96.8
R623	Z231	I296	5	96.8
R624	Z232	I297	5	96.8
R625	Z233	I298	5	96.8
R626	Z233	I299	5	96.8
R627	Z234	I300	5	96.8
R628	Z235	I301	5	96.8
R629	Z236	I302	5	96.8
R630	Z237	I303	5	96.8
R631	Z265	I304	5	96.8
R632	Z265	I305	5	96.8
R633	Z264	I306	5	96.8
R634	Z263	I307	5	96.8
R635	Z266	I308	5	96.8
R636	Z267	I309	5	96.8
R637	Z268	I310	5	96.8
R638	Z269	I311	5	96.8
R639	Z270	I312	5	96.8
R640	Z260	I313	5	96.8
R641	Z259	I314	5	96.8
R642	Z258	I315	5	96.8
R643	Z257	I316	5	96.8
R644	Z256	I317	5	96.8
R645	Z254	I318	5	96.8
R646	Z261	I319	5	96.8
R647	Z262	I320	5	96.8
R648	Z262	I321	5	96.8
R649	Z253	I322	5	96.8
R650	Z252	I323	5	96.8
R651	Z251	I324	5	96.8
R652	Z251	I325	5	96.8
R653	Z251	I326	5	96.8
R37	Z38	Z37	706.98	277.6
P1	S1	Z52	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
P2	S1	Z52	#N/A	#N/A Pump
P3	S1	Z52	#N/A	#N/A Pump
P4	S1	Z52	#N/A	#N/A Pump

Energy Usage:

Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.84	156.84	0.00
P3	100.00	75.00	0.29	156.84	156.84	0.00
P4	100.00	75.00	0.29	156.84	156.84	0.00

Demand Charge: 0.00
Total Cost: 0.00

Node Results:

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1	0.00	89.75	79.75	0.00
Z2	0.00	88.67	78.67	0.00
Z3	0.00	89.49	79.49	0.00
Z4	0.00	89.07	79.07	0.00
Z6	0.00	86.68	76.68	0.00
Z7	0.00	85.78	75.78	0.00
Z8	0.00	81.95	71.95	0.00
Z9	0.00	81.36	71.36	0.00
Z10	0.00	80.75	70.75	0.00
Z11	0.00	79.67	69.67	0.00
Z12	0.00	79.25	69.25	0.00
Z13	0.00	78.72	68.72	0.00
Z14	0.00	78.41	68.41	0.00
Z15	0.00	77.60	67.60	0.00
Z16	0.00	76.81	66.81	0.00
Z17	0.00	76.54	66.54	0.00
Z18	0.00	76.53	66.53	0.00
Z19	0.00	76.52	66.52	0.00
Z20	0.00	76.53	66.53	0.00
Z21	0.00	76.60	66.60	0.00
Z22	0.00	76.67	66.67	0.00
Z23	0.00	76.93	66.93	0.00
Z24	0.00	77.25	67.25	0.00
Z25	0.00	77.56	67.56	0.00
Z26	0.00	79.15	69.15	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z27	0.00	83.94	73.94	0.00
Z28	0.00	85.86	75.86	0.00
Z29	0.00	87.10	77.10	0.00
Z30	0.00	88.87	78.87	0.00
Z31	0.00	76.52	66.52	0.00
Z32	0.00	76.49	66.49	0.00
Z33	0.00	76.46	66.46	0.00
Z34	0.00	76.45	66.45	0.00
Z35	0.00	76.42	66.42	0.00
Z36	0.00	76.42	66.42	0.00
Z37	0.00	76.42	66.42	0.00
Z38	0.00	76.48	66.48	0.00
Z39	0.00	76.60	66.60	0.00
Z40	0.00	76.70	66.70	0.00
Z41	0.00	77.44	67.44	0.00
Z42	0.00	77.29	67.29	0.00
Z43	0.00	76.69	66.69	0.00
Z44	0.00	76.94	66.94	0.00
Z45	0.00	76.87	66.87	0.00
Z46	0.00	76.84	66.84	0.00
Z47	0.00	80.98	70.98	0.00
Z48	0.00	80.59	70.59	0.00
Z49	0.00	88.98	78.98	0.00
Z50	0.00	88.70	78.70	0.00
Z51	0.00	88.47	78.47	0.00
Z52	0.00	90.00	80.00	0.00
Z53	0.00	86.98	76.98	0.00
Z54	0.00	86.87	76.87	0.00
Z55	0.00	76.51	66.51	0.00
Z56	0.00	76.44	66.44	0.00
Z57	0.00	76.38	66.38	0.00
Z58	0.00	76.27	66.27	0.00
Z59	0.00	76.11	66.11	0.00
Z60	0.00	80.50	70.50	0.00
Z61	0.00	80.19	70.19	0.00
Z62	0.00	80.04	70.04	0.00
Z63	0.00	85.88	75.88	0.00
Z64	0.00	85.32	75.32	0.00
Z65	0.00	85.22	75.22	0.00
Z66	0.00	84.90	74.90	0.00
Z67	0.00	84.68	74.68	0.00
Z68	0.00	83.61	73.61	0.00
Z69	0.00	83.51	73.51	0.00
Z70	0.00	88.65	78.65	0.00
Z71	0.00	88.60	78.60	0.00
Z72	0.00	88.52	78.52	0.00
Z73	0.00	88.45	78.45	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z74	0.00	88.32	78.32	0.00
Z75	0.00	88.21	78.21	0.00
Z76	0.00	88.19	78.19	0.00
Z77	0.00	88.18	78.18	0.00
Z78	0.00	87.76	77.76	0.00
Z79	0.00	87.72	77.72	0.00
Z80	0.00	87.44	77.44	0.00
Z81	0.00	87.43	77.43	0.00
Z82	0.00	88.73	78.73	0.00
Z83	0.00	88.53	78.53	0.00
Z84	0.00	88.37	78.37	0.00
Z85	0.00	88.34	78.34	0.00
Z86	0.00	88.34	78.34	0.00
Z87	0.00	88.70	78.70	0.00
Z88	0.00	88.71	78.71	0.00
Z89	0.00	85.76	75.76	0.00
Z90	0.00	85.77	75.77	0.00
Z91	0.00	85.80	75.80	0.00
Z92	0.00	85.99	75.99	0.00
Z93	0.00	86.26	76.26	0.00
Z94	0.00	86.43	76.43	0.00
Z95	0.00	86.79	76.79	0.00
Z96	0.00	86.76	76.76	0.00
Z97	0.00	86.74	76.74	0.00
Z98	0.00	85.72	75.72	0.00
Z99	0.00	85.43	75.43	0.00
Z100	0.00	85.29	75.29	0.00
Z101	0.00	83.91	73.91	0.00
Z102	0.00	83.87	73.87	0.00
Z103	0.00	83.86	73.86	0.00
Z104	0.00	83.86	73.86	0.00
Z105	0.00	79.07	69.07	0.00
Z106	0.00	79.00	69.00	0.00
Z107	0.00	78.65	68.65	0.00
Z108	0.00	78.37	68.37	0.00
Z109	0.00	78.36	68.36	0.00
Z110	0.00	78.62	68.62	0.00
Z111	0.00	78.61	68.61	0.00
Z112	0.00	79.02	69.02	0.00
Z113	0.00	78.92	68.92	0.00
Z114	0.00	78.82	68.82	0.00
Z115	0.00	78.79	68.79	0.00
Z116	0.00	78.74	68.74	0.00
Z117	0.00	78.73	68.73	0.00
Z118	0.00	78.99	68.99	0.00
Z119	0.00	78.97	68.97	0.00
Z120	0.00	78.97	68.97	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z121	0.00	77.08	67.08	0.00
Z122	0.00	77.04	67.04	0.00
Z123	0.00	77.03	67.03	0.00
Z124	0.00	76.13	66.13	0.00
Z125	0.00	76.14	66.14	0.00
Z126	0.00	76.21	66.21	0.00
Z127	0.00	76.24	66.24	0.00
Z128	0.00	76.37	66.37	0.00
Z129	0.00	76.08	66.08	0.00
Z130	0.00	76.03	66.03	0.00
Z131	0.00	76.09	66.09	0.00
Z132	0.00	76.08	66.08	0.00
Z133	0.00	76.05	66.05	0.00
Z134	0.00	76.03	66.03	0.00
Z135	0.00	76.05	66.05	0.00
Z136	0.00	76.02	66.02	0.00
Z137	0.00	76.01	66.01	0.00
Z138	0.00	75.98	65.98	0.00
Z139	0.00	75.93	65.93	0.00
Z140	0.00	75.92	65.92	0.00
Z141	0.00	75.89	65.89	0.00
Z142	0.00	75.89	65.89	0.00
Z143	0.00	77.16	67.16	0.00
Z144	0.00	77.15	67.15	0.00
Z145	0.00	77.15	67.15	0.00
Z146	0.00	77.10	67.10	0.00
Z147	0.00	77.08	67.08	0.00
Z148	0.00	77.06	67.06	0.00
Z149	0.00	77.06	67.06	0.00
Z150	0.00	76.71	66.71	0.00
Z151	0.00	76.67	66.67	0.00
Z152	0.00	76.66	66.66	0.00
Z153	0.00	76.70	66.70	0.00
Z154	0.00	76.23	66.23	0.00
Z155	0.00	76.18	66.18	0.00
Z156	0.00	76.17	66.17	0.00
Z157	0.00	76.17	66.17	0.00
Z158	0.00	76.14	66.14	0.00
Z159	0.00	76.10	66.10	0.00
Z160	0.00	76.08	66.08	0.00
Z161	0.00	76.65	66.65	0.00
Z162	0.00	75.93	65.93	0.00
Z163	0.00	75.85	65.85	0.00
Z164	0.00	75.73	65.73	0.00
Z165	0.00	75.73	65.73	0.00
Z166	0.00	75.79	65.79	0.00
Z167	0.00	75.78	65.78	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z168	0.00	76.49	66.49	0.00
Z169	0.00	76.46	66.46	0.00
Z170	0.00	76.45	66.45	0.00
Z171	0.00	76.36	66.36	0.00
Z172	0.00	76.23	66.23	0.00
Z173	0.00	76.03	66.03	0.00
Z174	0.00	75.97	65.97	0.00
Z175	0.00	75.95	65.95	0.00
Z176	0.00	76.48	66.48	0.00
Z177	0.00	76.37	66.37	0.00
Z178	0.00	76.36	66.36	0.00
Z179	0.00	76.47	66.47	0.00
Z180	0.00	76.47	66.47	0.00
Z181	0.00	76.30	66.30	0.00
Z182	0.00	76.29	66.29	0.00
Z183	0.00	76.28	66.28	0.00
Z184	0.00	76.53	66.53	0.00
Z185	0.00	76.49	66.49	0.00
Z186	0.00	76.49	66.49	0.00
Z187	0.00	76.51	66.51	0.00
Z188	0.00	76.47	66.47	0.00
Z189	0.00	76.45	66.45	0.00
Z190	0.00	76.44	66.44	0.00
Z191	0.00	76.43	66.43	0.00
Z192	0.00	76.39	66.39	0.00
Z193	0.00	76.37	66.37	0.00
Z194	0.00	76.41	66.41	0.00
Z195	0.00	76.36	66.36	0.00
Z196	0.00	76.34	66.34	0.00
Z197	0.00	76.30	66.30	0.00
Z198	0.00	76.29	66.29	0.00
Z199	0.00	76.45	66.45	0.00
Z200	0.00	76.39	66.39	0.00
Z201	0.00	76.39	66.39	0.00
Z202	0.00	76.51	66.51	0.00
Z203	0.00	76.44	66.44	0.00
Z204	0.00	76.44	66.44	0.00
Z205	0.00	76.56	66.56	0.00
Z206	0.00	76.55	66.55	0.00
Z207	0.00	76.54	66.54	0.00
Z208	0.00	76.67	66.67	0.00
Z209	0.00	76.64	66.64	0.00
Z210	0.00	76.61	66.61	0.00
Z211	0.00	76.80	66.80	0.00
Z212	0.00	77.56	67.56	0.00
Z213	0.00	77.49	67.49	0.00
Z214	0.00	77.48	67.48	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z215	0.00	77.41	67.41	0.00
Z216	0.00	77.37	67.37	0.00
Z217	0.00	77.35	67.35	0.00
Z218	0.00	77.35	67.35	0.00
Z219	0.00	77.55	67.55	0.00
Z220	0.00	78.40	68.40	0.00
Z221	0.00	78.68	68.68	0.00
Z222	0.00	78.62	68.62	0.00
Z223	0.00	78.49	68.49	0.00
Z224	0.00	78.43	68.43	0.00
Z225	0.00	79.20	69.20	0.00
Z226	0.00	79.08	69.08	0.00
Z227	0.00	79.01	69.01	0.00
Z228	0.00	79.00	69.00	0.00
Z229	0.00	78.97	68.97	0.00
Z230	0.00	78.93	68.93	0.00
Z231	0.00	78.93	68.93	0.00
Z232	0.00	79.56	69.56	0.00
Z233	0.00	79.48	69.48	0.00
Z234	0.00	79.36	69.36	0.00
Z235	0.00	79.31	69.31	0.00
Z236	0.00	79.27	69.27	0.00
Z237	0.00	79.26	69.26	0.00
Z238	0.00	79.91	69.91	0.00
Z239	0.00	79.36	69.36	0.00
Z240	0.00	79.11	69.11	0.00
Z241	0.00	78.94	68.94	0.00
Z242	0.00	78.73	68.73	0.00
Z243	0.00	78.63	68.63	0.00
Z244	0.00	78.56	68.56	0.00
Z245	0.00	78.55	68.55	0.00
Z246	0.00	79.89	69.89	0.00
Z247	0.00	79.80	69.80	0.00
Z248	0.00	79.71	69.71	0.00
Z249	0.00	79.68	69.68	0.00
Z250	0.00	79.67	69.67	0.00
Z251	0.00	80.94	70.94	0.00
Z252	0.00	80.92	70.92	0.00
Z253	0.00	80.91	70.91	0.00
Z254	0.00	80.52	70.52	0.00
Z255	0.00	80.41	70.41	0.00
Z256	0.00	80.40	70.40	0.00
Z257	0.00	80.29	70.29	0.00
Z258	0.00	80.27	70.27	0.00
Z259	0.00	80.26	70.26	0.00
Z260	0.00	80.26	70.26	0.00
Z261	0.00	80.48	70.48	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z262	0.00	80.45	70.45	0.00
Z263	0.00	80.16	70.16	0.00
Z264	0.00	80.06	70.06	0.00
Z265	0.00	80.02	70.02	0.00
Z266	0.00	80.09	70.09	0.00
Z267	0.00	79.93	69.93	0.00
Z268	0.00	79.82	69.82	0.00
Z269	0.00	79.80	69.80	0.00
Z270	0.00	79.79	69.79	0.00
Z271	0.00	81.90	71.90	0.00
Z272	0.00	81.85	71.85	0.00
Z273	0.00	81.84	71.84	0.00
Z274	0.00	85.30	75.30	0.00
Z275	0.00	84.99	74.99	0.00
Z276	0.00	84.89	74.89	0.00
Z277	0.00	84.79	74.79	0.00
Z278	0.00	84.77	74.77	0.00
Z279	0.00	84.76	74.76	0.00
Z280	0.00	84.77	74.77	0.00
Z281	0.00	84.89	74.89	0.00
Z282	0.00	84.07	74.07	0.00
Z283	0.00	83.92	73.92	0.00
Z284	0.00	83.48	73.48	0.00
Z285	0.00	83.36	73.36	0.00
Z286	0.00	83.28	73.28	0.00
Z287	0.00	83.24	73.24	0.00
Z288	0.00	83.23	73.23	0.00
Z289	0.00	83.22	73.22	0.00
Z290	0.00	83.51	73.51	0.00
Z291	0.00	83.46	73.46	0.00
Z292	0.00	83.25	73.25	0.00
Z293	0.00	83.06	73.06	0.00
Z294	0.00	82.83	72.83	0.00
Z295	0.00	82.82	72.82	0.00
Z296	0.00	82.81	72.81	0.00
Z297	0.00	82.93	72.93	0.00
Z298	0.00	82.90	72.90	0.00
Z299	0.00	82.89	72.89	0.00
Z300	0.00	84.67	74.67	0.00
Z301	0.00	83.67	73.67	0.00
Z302	0.00	83.46	73.46	0.00
Z303	0.00	83.31	73.31	0.00
Z304	0.00	83.23	73.23	0.00
Z305	0.00	83.13	73.13	0.00
Z306	0.00	83.12	73.12	0.00
Z307	0.00	83.12	73.12	0.00
Z308	0.00	83.08	73.08	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z309	0.00	83.42	73.42	0.00
Z310	0.00	83.38	73.38	0.00
Z311	0.00	83.37	73.37	0.00
Z312	0.00	83.41	73.41	0.00
Z313	0.00	85.41	75.41	0.00
Z314	0.00	85.29	75.29	0.00
Z315	0.00	85.13	75.13	0.00
Z316	0.00	85.12	75.12	0.00
Z317	0.00	85.04	75.04	0.00
Z318	0.00	85.03	75.03	0.00
Z319	0.00	88.67	78.67	0.00
Z320	0.00	88.66	78.66	0.00
Z321	0.00	89.48	79.48	0.00
I1	1.38	88.98	78.98	0.00
I2	1.38	88.65	78.65	0.00
I3	1.38	88.60	78.60	0.00
I4	1.38	88.52	78.52	0.00
I5	1.38	88.44	78.44	0.00
I6	1.38	88.44	78.44	0.00
I7	1.38	88.32	78.32	0.00
I8	1.38	88.21	78.21	0.00
I9	1.38	88.18	78.18	0.00
I10	1.38	88.17	78.17	0.00
I11	1.38	87.76	77.76	0.00
I12	1.38	87.72	77.72	0.00
I13	1.38	87.44	77.44	0.00
I14	1.38	87.44	77.44	0.00
I15	1.38	87.42	77.42	0.00
I23	1.38	88.34	78.34	0.00
I22	1.38	88.34	78.34	0.00
I21	1.38	88.37	78.37	0.00
I20	1.38	88.52	78.52	0.00
I19	1.38	88.73	78.73	0.00
I18	1.38	88.73	78.73	0.00
I17	1.38	88.71	78.71	0.00
I16	1.38	88.70	78.70	0.00
I24	1.38	86.98	76.98	0.00
I25	1.38	86.79	76.79	0.00
I26	1.38	86.76	76.76	0.00
I27	1.38	86.74	76.74	0.00
I28	1.38	86.42	76.42	0.00
I29	1.38	86.26	76.26	0.00
I30	1.38	85.99	75.99	0.00
I31	1.38	85.80	75.80	0.00
I32	1.38	85.80	75.80	0.00
I33	1.38	85.77	75.77	0.00
I34	1.38	85.76	75.76	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I35	1.38	85.71	75.71	0.00
I36	1.38	85.71	75.71	0.00
I37	1.38	85.42	75.42	0.00
I38	1.38	85.42	75.42	0.00
I39	1.38	85.42	75.42	0.00
I40	1.38	85.29	75.29	0.00
I41	1.38	85.29	75.29	0.00
I42	1.38	85.29	75.29	0.00
I43	1.38	83.91	73.91	0.00
I44	1.38	83.91	73.91	0.00
I45	1.38	83.86	73.86	0.00
I46	1.38	83.86	73.86	0.00
I47	1.38	78.36	68.36	0.00
I48	1.38	78.37	68.37	0.00
I49	1.38	78.37	68.37	0.00
I50	1.38	78.61	68.61	0.00
I51	1.38	78.61	68.61	0.00
I52	1.38	78.65	68.65	0.00
I53	1.38	78.65	68.65	0.00
I54	1.38	79.00	69.00	0.00
I55	1.38	79.07	69.07	0.00
I56	1.38	78.98	68.98	0.00
I57	1.38	78.97	68.97	0.00
I58	1.38	78.97	68.97	0.00
I59	1.38	78.91	68.91	0.00
I60	1.38	78.82	68.82	0.00
I61	1.38	78.79	68.79	0.00
I62	1.38	78.79	68.79	0.00
I63	1.38	78.74	68.74	0.00
I64	1.38	78.73	68.73	0.00
I65	1.38	75.88	65.88	0.00
I66	1.38	75.89	65.89	0.00
I67	1.38	75.92	65.92	0.00
I68	1.38	75.93	65.93	0.00
I69	1.38	75.98	65.98	0.00
I70	1.38	76.00	66.00	0.00
I71	1.38	76.02	66.02	0.00
I72	1.38	76.05	66.05	0.00
I73	1.38	76.05	66.05	0.00
I74	1.38	76.05	66.05	0.00
I75	1.38	76.03	66.03	0.00
I76	1.38	76.09	66.09	0.00
I77	1.38	76.08	66.08	0.00
I78	1.38	76.02	66.02	0.00
I79	1.38	76.02	66.02	0.00
I80	1.38	76.27	66.27	0.00
I81	1.38	76.38	66.38	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I82	1.38	76.44	66.44	0.00
I83	1.38	76.37	66.37	0.00
I84	1.38	76.24	66.24	0.00
I85	1.38	76.21	66.21	0.00
I86	1.38	76.14	66.14	0.00
I87	1.38	76.13	66.13	0.00
I88	1.38	76.51	66.51	0.00
I89	1.38	76.84	66.84	0.00
I90	1.38	76.87	66.87	0.00
I91	1.38	76.94	66.94	0.00
I92	1.38	77.08	67.08	0.00
I93	1.38	77.08	67.08	0.00
I94	1.38	77.04	67.04	0.00
I95	1.38	77.03	67.03	0.00
I96	1.38	77.44	67.44	0.00
I97	1.38	77.06	67.06	0.00
I98	1.38	77.06	67.06	0.00
I99	1.38	77.07	67.07	0.00
I100	1.38	77.10	67.10	0.00
I101	1.38	77.16	67.16	0.00
I102	1.38	77.15	67.15	0.00
I103	1.38	77.15	67.15	0.00
I104	1.38	76.07	66.07	0.00
I105	1.38	76.07	66.07	0.00
I106	1.38	76.10	66.10	0.00
I107	1.38	76.14	66.14	0.00
I108	1.38	76.17	66.17	0.00
I109	1.38	76.17	66.17	0.00
I110	1.38	76.17	66.17	0.00
I111	1.38	76.18	66.18	0.00
I112	1.38	76.71	66.71	0.00
I113	1.38	76.67	66.67	0.00
I114	1.38	76.65	66.65	0.00
I115	1.38	76.65	66.65	0.00
I116	1.38	76.65	66.65	0.00
I117	1.38	76.65	66.65	0.00
I118	1.38	75.72	65.72	0.00
I119	1.38	75.73	65.73	0.00
I120	1.38	75.85	65.85	0.00
I121	1.38	75.93	65.93	0.00
I122	1.38	75.93	65.93	0.00
I123	1.38	75.79	65.79	0.00
I124	1.38	75.79	65.79	0.00
I125	1.38	75.78	65.78	0.00
I126	1.38	79.91	69.91	0.00
I127	1.38	79.36	69.36	0.00
I128	1.38	79.10	69.10	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I129	1.38	78.93	68.93	0.00
I130	1.38	78.73	68.73	0.00
I131	1.38	78.63	68.63	0.00
I132	1.38	78.55	68.55	0.00
I133	1.38	78.55	68.55	0.00
I134	1.38	78.55	68.55	0.00
I135	1.38	79.89	69.89	0.00
I136	1.38	79.80	69.80	0.00
I137	1.38	79.71	69.71	0.00
I138	1.38	79.71	69.71	0.00
I139	1.38	79.68	69.68	0.00
I140	1.38	79.67	69.67	0.00
I141	1.38	81.90	71.90	0.00
I142	1.38	81.90	71.90	0.00
I143	1.38	81.85	71.85	0.00
I144	1.38	81.85	71.85	0.00
I145	1.38	81.84	71.84	0.00
I146	1.38	85.30	75.30	0.00
I147	1.38	84.99	74.99	0.00
I148	1.38	84.88	74.88	0.00
I149	1.38	84.79	74.79	0.00
I150	1.38	84.77	74.77	0.00
I151	1.38	84.77	74.77	0.00
I152	1.38	84.76	74.76	0.00
I153	1.38	84.89	74.89	0.00
I154	1.38	84.06	74.06	0.00
I155	1.38	84.06	74.06	0.00
I156	1.38	84.06	74.06	0.00
I157	1.38	83.92	73.92	0.00
I158	1.38	83.47	73.47	0.00
I159	1.38	83.36	73.36	0.00
I160	1.38	83.28	73.28	0.00
I161	1.38	83.24	73.24	0.00
I162	1.38	83.23	73.23	0.00
I163	1.38	83.22	73.22	0.00
I164	1.38	85.88	75.88	0.00
I165	1.38	85.21	75.21	0.00
I166	1.38	85.21	75.21	0.00
I167	1.38	84.90	74.90	0.00
I168	1.38	84.67	74.67	0.00
I169	1.38	84.68	74.68	0.00
I170	1.38	84.68	74.68	0.00
I171	1.38	83.67	73.67	0.00
I172	1.38	83.46	73.46	0.00
I173	1.38	83.46	73.46	0.00
I174	1.38	83.31	73.31	0.00
I175	1.38	83.23	73.23	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I176	1.38	83.13	73.13	0.00
I177	1.38	83.11	73.11	0.00
I178	1.38	83.11	73.11	0.00
I179	1.38	83.08	73.08	0.00
I180	1.38	83.37	73.37	0.00
I181	1.38	83.38	73.38	0.00
I182	1.38	83.38	73.38	0.00
I183	1.38	83.42	73.42	0.00
I184	1.38	83.41	73.41	0.00
I185	1.38	83.61	73.61	0.00
I186	1.38	83.50	73.50	0.00
I187	1.38	83.46	73.46	0.00
I188	1.38	83.25	73.25	0.00
I189	1.38	82.83	72.83	0.00
I190	1.38	82.83	72.83	0.00
I191	1.38	82.82	72.82	0.00
I192	1.38	82.81	72.81	0.00
I193	1.38	83.05	73.05	0.00
I194	1.38	82.93	72.93	0.00
I195	1.38	82.90	72.90	0.00
I196	1.38	82.90	72.90	0.00
I197	1.38	82.89	72.89	0.00
I198	1.38	85.40	75.40	0.00
I199	1.38	85.29	75.29	0.00
I200	1.38	85.12	75.12	0.00
I201	1.38	85.03	75.03	0.00
I202	1.38	85.03	75.03	0.00
I203	1.38	85.03	75.03	0.00
I204	1.38	85.02	75.02	0.00
I205	1.38	89.49	79.49	0.00
I206	1.38	89.49	79.49	0.00
I207	1.38	89.48	79.48	0.00
I208	1.38	88.66	78.66	0.00
I209	1.38	88.66	78.66	0.00
I210	1.38	76.49	66.49	0.00
I211	1.38	76.45	66.45	0.00
I212	1.38	76.45	66.45	0.00
I213	1.38	76.44	66.44	0.00
I214	1.38	76.35	66.35	0.00
I215	1.38	76.22	66.22	0.00
I216	1.38	76.02	66.02	0.00
I217	1.38	75.96	65.96	0.00
I218	1.38	75.95	65.95	0.00
I219	1.38	75.95	65.95	0.00
I220	1.38	76.27	66.27	0.00
I221	1.38	76.29	66.29	0.00
I222	1.38	76.30	66.30	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I223	1.38	76.30	66.30	0.00
I224	1.38	76.47	66.47	0.00
I225	1.38	76.47	66.47	0.00
I226	1.38	76.37	66.37	0.00
I227	1.38	76.37	66.37	0.00
I228	1.38	76.36	66.36	0.00
I229	1.38	76.52	66.52	0.00
I230	1.38	76.50	66.50	0.00
I231	1.38	76.49	66.49	0.00
I232	1.38	76.48	66.48	0.00
I233	1.38	76.47	66.47	0.00
I234	1.38	76.47	66.47	0.00
I235	1.38	76.45	66.45	0.00
I236	1.38	76.46	66.46	0.00
I237	1.38	76.43	66.43	0.00
I238	1.38	76.44	66.44	0.00
I239	1.38	76.39	66.39	0.00
I240	1.38	76.39	66.39	0.00
I241	1.38	76.36	66.36	0.00
I242	1.38	76.36	66.36	0.00
I243	1.38	76.41	66.41	0.00
I244	1.38	76.41	66.41	0.00
I245	1.38	76.41	66.41	0.00
I246	1.38	76.36	66.36	0.00
I247	1.38	76.36	66.36	0.00
I248	1.38	76.34	66.34	0.00
I249	1.38	76.29	66.29	0.00
I250	1.38	76.28	66.28	0.00
I251	1.38	76.44	66.44	0.00
I252	1.38	76.44	66.44	0.00
I253	1.38	76.38	66.38	0.00
I254	1.38	76.39	66.39	0.00
I255	1.38	76.44	66.44	0.00
I256	1.38	76.44	66.44	0.00
I257	1.38	76.48	66.48	0.00
I258	1.38	76.48	66.48	0.00
I259	1.38	76.55	66.55	0.00
I260	1.38	76.55	66.55	0.00
I261	1.38	76.55	66.55	0.00
I262	1.38	76.54	66.54	0.00
I263	1.38	76.54	66.54	0.00
I264	1.38	76.80	66.80	0.00
I265	1.38	76.80	66.80	0.00
I266	1.38	76.67	66.67	0.00
I267	1.38	76.67	66.67	0.00
I268	1.38	76.64	66.64	0.00
I269	1.38	76.61	66.61	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I270	1.38	77.55	67.55	0.00
I271	1.38	77.56	67.56	0.00
I272	1.38	77.56	67.56	0.00
I273	1.38	77.49	67.49	0.00
I274	1.38	77.49	67.49	0.00
I275	1.38	77.48	67.48	0.00
I276	1.38	77.40	67.40	0.00
I277	1.38	77.36	67.36	0.00
I278	1.38	77.35	67.35	0.00
I279	1.38	77.35	67.35	0.00
I280	1.38	78.40	68.40	0.00
I281	1.38	78.43	68.43	0.00
I282	1.38	78.43	68.43	0.00
I283	1.38	78.49	68.49	0.00
I284	1.38	78.62	68.62	0.00
I285	1.38	78.67	68.67	0.00
I286	1.38	79.20	69.20	0.00
I287	1.38	79.20	69.20	0.00
I288	1.38	79.01	69.01	0.00
I289	1.38	79.01	69.01	0.00
I290	1.38	79.00	69.00	0.00
I291	1.38	79.08	69.08	0.00
I292	1.38	79.08	69.08	0.00
I293	1.38	79.08	69.08	0.00
I294	1.38	78.97	68.97	0.00
I295	1.38	78.93	68.93	0.00
I296	1.38	78.93	68.93	0.00
I297	1.38	79.56	69.56	0.00
I298	1.38	79.48	69.48	0.00
I299	1.38	79.48	69.48	0.00
I300	1.38	79.36	69.36	0.00
I301	1.38	79.31	69.31	0.00
I302	1.38	79.27	69.27	0.00
I303	1.38	79.26	69.26	0.00
I304	1.38	80.02	70.02	0.00
I305	1.38	80.02	70.02	0.00
I306	1.38	80.05	70.05	0.00
I307	1.38	80.16	70.16	0.00
I308	1.38	80.09	70.09	0.00
I309	1.38	79.93	69.93	0.00
I310	1.38	79.82	69.82	0.00
I311	1.38	79.80	69.80	0.00
I312	1.38	79.79	69.79	0.00
I313	1.38	80.25	70.25	0.00
I314	1.38	80.26	70.26	0.00
I315	1.38	80.27	70.27	0.00
I316	1.38	80.29	70.29	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I317	1.38	80.40	70.40	0.00
I318	1.38	80.51	70.51	0.00
I319	1.38	80.48	70.48	0.00
I320	1.38	80.44	70.44	0.00
I321	1.38	80.44	70.44	0.00
I322	1.38	80.91	70.91	0.00
I323	1.38	80.92	70.92	0.00
I324	1.38	80.93	70.93	0.00
I325	1.38	80.93	70.93	0.00
I326	1.38	80.93	70.93	0.00
S1	-450.00	10.00	0.00	0.00 Reservoir

Link Results:

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1	190.86	0.97	1.81	Open
R2	259.14	1.32	7.27	Open
R3	170.16	0.87	1.27	Open
R4	159.11	1.27	3.46	Open
R5	143.93	1.15	2.85	Open
R6	132.89	1.73	6.67	Open
R7	127.36	1.66	6.17	Open
R8	102.52	1.33	4.12	Open
R9	58.35	0.76	1.46	Open
R10	48.68	0.63	1.05	Open
R11	33.50	0.44	0.53	Open
R12	29.36	0.38	0.42	Open
R13	18.32	0.24	0.18	Open
R14	4.51	0.06	0.01	Open
R15	-7.91	0.10	0.04	Open
R16	-9.29	0.12	0.05	Open
R17	-29.43	0.38	0.42	Open
R18	-64.51	0.84	1.76	Open
R19	-78.31	1.02	2.51	Open
R20	-79.69	1.04	2.59	Open
R21	-86.59	1.13	3.02	Open
R22	-101.78	0.81	1.46	Open
R23	-111.44	0.89	1.74	Open
R24	-132.15	1.05	2.42	Open
R25	-163.89	1.30	3.67	Open
R26	-170.80	1.36	3.97	Open
R27	-195.64	1.56	5.17	Open
R28	-252.24	1.28	2.71	Open
R29	-255.00	1.30	2.77	Open
R30	20.13	0.33	0.87	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R31	15.99	0.26	0.25	Open
R32	11.85	0.20	0.15	Open
R33	10.47	0.17	0.12	Open
R34	7.71	0.13	0.07	Open
R35	2.19	0.04	0.01	Open
R36	-0.57	0.01	0.00	Open
R39	-26.80	0.44	0.63	Open
R40	-32.32	0.53	1.17	Open
R41	44.17	0.57	1.17	Open
R42	42.79	0.56	0.83	Open
R43	37.27	0.62	1.15	Open
R44	35.89	0.59	1.07	Open
R45	34.51	0.57	1.00	Open
R46	33.13	0.55	0.93	Open
R47	31.75	0.83	3.10	Open
R48	24.85	0.65	1.65	Open
R49	20.71	0.68	3.77	Open
R50	19.33	0.63	1.82	Open
R51	12.42	0.41	0.82	Open
R52	450.00	2.29	8.39	Open
R53	15.18	0.50	1.46	Open
R54	13.80	0.45	0.99	Open
R55	33.13	0.55	1.09	Open
R56	31.75	0.52	0.86	Open
R57	23.47	0.39	0.50	Open
R58	22.09	0.36	0.45	Open
R59	20.71	0.34	0.40	Open
R60	16.56	0.54	2.00	Open
R61	12.42	0.41	0.82	Open
R62	20.71	0.68	2.19	Open
R63	56.60	1.85	21.51	Open
R64	45.55	1.49	8.75	Open
R65	20.71	0.68	3.58	Open
R66	17.94	0.59	1.59	Open
R67	16.56	0.54	1.37	Open
R68	24.85	0.81	2.87	Open
R69	16.56	0.54	1.37	Open
R71	6.90	0.44	2.35	Open
R72	5.52	0.35	0.96	Open
R73	4.14	0.27	0.58	Open
R74	2.76	0.18	0.28	Open
R75	12.42	0.80	6.88	Open
R76	4.14	0.27	0.61	Open
R77	2.76	0.18	0.28	Open
R78	1.38	0.09	0.08	Open
R79	6.90	0.44	1.44	Open
R80	5.52	0.35	0.96	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R81	4.14	0.27		0.58	Open
R82	1.38	0.09		0.08	Open
R83	11.04	0.71		4.98	Open
R84	5.52	0.35		0.96	Open
R85	4.14	0.27		0.58	Open
R86	2.76	0.18		0.28	Open
R87	1.38	0.09		0.08	Open
R88	2.76	0.18		0.33	Open
R89	1.38	0.09		0.08	Open
R90	9.66	0.62		2.86	Open
R91	8.28	0.53		1.99	Open
R92	6.90	0.44		1.44	Open
R93	5.52	0.35		0.96	Open
R94	2.76	0.18		0.28	Open
R95	1.38	0.09		0.08	Open
R96	4.14	0.27		0.63	Open
R97	2.76	0.18		0.28	Open
R98	1.38	0.09		0.08	Open
R99	11.04	0.71		4.92	Open
R100	8.28	0.53		1.99	Open
R101	4.14	0.27		0.58	Open
R102	5.52	0.35		1.49	Open
R103	2.76	0.18		0.28	Open
R104	1.38	0.09		0.08	Open
R105	1.38	0.09		0.09	Open
R106	24.85	0.65		2.99	Open
R107	11.04	0.36		0.66	Open
R108	9.66	0.62		2.63	Open
R109	2.76	0.18		0.28	Open
R110	1.38	0.09		0.08	Open
R111	4.14	0.27		0.59	Open
R112	1.38	0.09		0.08	Open
R113	12.42	0.41		1.14	Open
R114	8.28	0.53		1.99	Open
R115	6.90	0.44		1.44	Open
R116	5.52	0.35		0.96	Open
R117	2.76	0.18		0.28	Open
R118	1.38	0.09		0.08	Open
R119	4.14	0.27		0.74	Open
R120	2.76	0.18		0.28	Open
R121	1.38	0.09		0.08	Open
R122	5.52	0.35		1.02	Open
R123	2.76	0.18		0.28	Open
R124	1.38	0.09		0.08	Open
R125	-1.38	0.09		0.08	Open
R126	-2.76	0.18		0.28	Open
R127	-4.14	0.27		0.58	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R128	-5.52	0.35		0.96	Open
R129	6.90	0.44		1.97	Open
R130	4.14	0.27		0.81	Open
R131	2.76	0.18		0.28	Open
R132	16.56	0.27		0.60	Open
R133	15.18	0.25		0.23	Open
R134	4.14	0.27		0.76	Open
R135	1.38	0.09		0.08	Open
R136	11.04	0.29		0.38	Open
R137	9.66	0.25		0.30	Open
R138	8.28	0.22		0.23	Open
R139	6.90	0.18		0.17	Open
R140	5.52	0.14		0.11	Open
R141	4.14	0.11		0.07	Open
R142	2.76	0.18		0.28	Open
R143	1.38	0.09		0.08	Open
R144	9.66	0.62		4.53	Open
R145	2.76	0.18		0.37	Open
R146	1.38	0.09		0.08	Open
R147	5.52	0.35		0.96	Open
R148	4.14	0.27		0.58	Open
R149	2.76	0.18		0.28	Open
R150	1.38	0.09		0.08	Open
R151	-15.18	0.97		9.91	Open
R152	2.76	0.18		0.44	Open
R153	2.76	0.18		0.28	Open
R154	1.38	0.09		0.08	Open
R155	11.04	0.71		3.36	Open
R156	2.76	0.18		0.28	Open
R157	1.38	0.09		0.08	Open
R158	8.28	0.53		3.72	Open
R159	5.52	0.35		0.96	Open
R160	4.14	0.27		0.58	Open
R161	2.76	0.18		0.28	Open
R162	4.14	0.27		0.85	Open
R163	11.04	0.71		3.60	Open
R164	4.14	0.27		0.63	Open
R165	2.76	0.18		0.28	Open
R166	1.38	0.09		0.08	Open
R167	4.14	0.27		0.58	Open
R168	1.38	0.09		0.08	Open
R169	13.80	0.45		2.35	Open
R170	12.42	0.41		0.82	Open
R171	1.38	0.09		0.09	Open
R172	8.28	0.27		0.39	Open
R173	6.90	0.44		1.44	Open
R174	5.52	0.35		0.96	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R175	4.14	0.27		0.58	Open
R176	2.76	0.18		0.28	Open
R177	12.42	0.41		1.38	Open
R178	2.76	0.18		0.41	Open
R179	1.38	0.09		0.08	Open
R180	4.14	0.27		0.61	Open
R181	1.38	0.09		0.08	Open
R182	5.52	0.35		0.96	Open
R183	2.76	0.18		0.28	Open
R184	1.38	0.09		0.08	Open
R185	1.38	0.09		0.12	Open
R186	4.14	0.27		0.93	Open
R187	2.76	0.18		0.28	Open
R188	1.38	0.09		0.08	Open
R189	4.14	0.27		0.95	Open
R190	1.38	0.09		0.08	Open
R191	2.76	0.18		0.45	Open
R192	1.38	0.09		0.08	Open
R193	5.52	0.35		1.58	Open
R194	2.76	0.18		0.28	Open
R195	8.28	0.22		0.42	Open
R196	6.90	0.18		0.17	Open
R197	4.14	0.11		0.07	Open
R198	2.76	0.18		0.28	Open
R199	1.38	0.09		0.08	Open
R200	5.52	0.35		1.51	Open
R201	2.76	0.18		0.28	Open
R202	1.38	0.09		0.08	Open
R203	-17.14	0.28		0.28	Open
R204	-19.90	0.33		0.37	Open
R205	2.76	0.18		0.29	Open
R206	1.38	0.09		0.08	Open
R207	6.90	0.44		2.44	Open
R208	2.76	0.18		0.28	Open
R209	1.38	0.09		0.08	Open
R210	5.52	0.35		1.61	Open
R211	2.76	0.18		0.28	Open
R212	1.38	0.09		0.08	Open
R213	2.76	0.18		0.41	Open
R214	13.80	0.45		2.14	Open
R215	1.38	0.09		0.09	Open
R216	9.66	0.32		0.52	Open
R217	6.90	0.23		0.28	Open
R218	5.52	0.18		0.19	Open
R219	4.14	0.27		0.58	Open
R220	2.76	0.18		0.28	Open
R221	1.38	0.09		0.08	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R222	1.38	0.09		0.12	Open
R223	6.90	0.44		2.42	Open
R224	5.52	0.35		0.96	Open
R225	4.14	0.27		0.58	Open
R226	2.76	0.18		0.28	Open
R227	15.18	0.50		2.14	Open
R228	12.42	0.41		0.82	Open
R229	4.14	0.27		0.58	Open
R230	2.76	0.18		0.28	Open
R231	1.38	0.09		0.08	Open
R232	4.14	0.27		0.63	Open
R233	1.38	0.09		0.08	Open
R234	9.66	0.62		3.99	Open
R235	8.28	0.53		1.99	Open
R236	5.52	0.35		0.96	Open
R237	4.14	0.27		0.58	Open
R238	2.76	0.18		0.28	Open
R239	1.38	0.09		0.08	Open
R240	12.42	0.80		7.85	Open
R241	11.04	0.71		3.36	Open
R242	9.66	0.62		2.63	Open
R243	8.28	0.53		1.99	Open
R244	6.90	0.44		1.44	Open
R245	5.52	0.35		0.96	Open
R246	4.14	0.27		0.58	Open
R247	1.38	0.09		0.08	Open
R248	8.28	0.53		2.44	Open
R249	6.90	0.44		1.44	Open
R250	5.52	0.35		0.96	Open
R251	2.76	0.18		0.28	Open
R252	1.38	0.09		0.08	Open
R253	6.90	0.44		2.28	Open
R254	2.76	0.18		0.28	Open
R255	1.38	0.09		0.08	Open
R256	8.28	0.53		3.13	Open
R257	6.90	0.44		1.44	Open
R258	1.38	0.09		0.08	Open
R259	5.52	0.35		1.07	Open
R260	4.14	0.27		0.58	Open
R261	2.76	0.18		0.28	Open
R262	1.38	0.09		0.08	Open
R263	4.14	0.27		0.88	Open
R264	2.76	0.18		0.28	Open
R265	5.52	0.35		1.49	Open
R266	4.14	0.27		0.58	Open
R267	2.76	0.18		0.28	Open
R268	6.90	0.44		1.75	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R269	5.52	0.35		0.96	Open
R270	4.14	0.27		0.58	Open
R271	2.76	0.18		0.28	Open
R272	1.38	0.09		0.08	Open
R273	6.90	0.44		2.16	Open
R274	4.14	0.27		0.58	Open
R275	1.38	0.09		0.08	Open
R276	24.85	1.59		28.48	Open
R277	8.28	0.53		2.17	Open
R278	6.90	0.44		1.44	Open
R279	5.52	0.35		0.96	Open
R280	1.38	0.09		0.09	Open
R281	2.76	0.18		0.28	Open
R282	1.38	0.09		0.08	Open
R283	15.18	0.50		1.17	Open
R284	13.80	0.88		5.04	Open
R285	9.66	0.62		2.63	Open
R286	8.28	0.53		1.99	Open
R287	6.90	0.44		1.44	Open
R288	5.52	0.35		0.96	Open
R289	4.14	0.27		0.58	Open
R290	2.76	0.18		0.28	Open
R291	1.38	0.09		0.08	Open
R292	1.38	0.09		0.09	Open
R293	15.18	0.50		2.21	Open
R294	13.80	0.45		0.99	Open
R295	12.42	0.41		0.82	Open
R296	5.52	0.35		1.01	Open
R297	2.76	0.18		0.28	Open
R298	1.38	0.09		0.08	Open
R299	5.52	0.35		0.96	Open
R300	4.14	0.27		0.58	Open
R301	1.38	0.09		0.08	Open
R302	1.38	0.09		0.09	Open
R303	12.42	0.80		4.41	Open
R304	11.04	0.71		3.36	Open
R305	8.28	0.53		1.99	Open
R306	6.90	0.44		1.44	Open
R307	5.52	0.35		0.96	Open
R308	1.38	0.09		0.09	Open
R309	2.76	0.18		0.28	Open
R310	1.38	0.09		0.08	Open
R311	6.90	0.44		1.58	Open
R312	1.38	0.09		0.09	Open
R313	4.14	0.27		0.58	Open
R314	1.38	0.09		0.08	Open
R315	9.66	0.62		2.84	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R316	8.28	0.53		1.99	Open
R317	6.90	0.44		1.44	Open
R318	1.38	0.09		0.09	Open
R319	5.52	0.35		0.96	Open
R320	1.38	0.09		0.08	Open
R321	2.76	0.18		0.45	Open
R322	1.38	0.09		0.08	Open
R323	1.38	0.09		0.09	Open
R326	1.38	0.19		0.50	Open
R327	1.38	0.19		0.50	Open
R328	1.38	0.19		0.50	Open
R329	1.38	0.19		0.50	Open
R330	1.38	0.19		0.50	Open
R331	1.38	0.19		0.50	Open
R332	1.38	0.19		0.50	Open
R333	1.38	0.19		0.50	Open
R334	1.38	0.19		0.50	Open
R335	1.38	0.19		0.50	Open
R336	1.38	0.19		0.50	Open
R337	1.38	0.19		0.50	Open
R338	1.38	0.19		0.50	Open
R339	1.38	0.19		0.50	Open
R340	1.38	0.19		0.50	Open
R341	1.38	0.19		0.50	Open
R342	1.38	0.19		0.50	Open
R343	1.38	0.19		0.50	Open
R344	1.38	0.19		0.50	Open
R345	1.38	0.19		0.50	Open
R346	1.38	0.19		0.50	Open
R347	1.38	0.19		0.50	Open
R348	1.38	0.19		0.50	Open
R349	1.38	0.19		0.50	Open
R350	1.38	0.19		0.50	Open
R351	1.38	0.19		0.50	Open
R352	1.38	0.19		0.50	Open
R353	1.38	0.19		0.50	Open
R354	1.38	0.19		0.50	Open
R355	1.38	0.19		0.50	Open
R356	1.38	0.19		0.50	Open
R357	1.38	0.19		0.50	Open
R358	1.38	0.19		0.50	Open
R359	1.38	0.19		0.50	Open
R360	1.38	0.19		0.50	Open
R361	1.38	0.19		0.50	Open
R362	1.38	0.19		0.50	Open
R363	1.38	0.19		0.50	Open
R364	1.38	0.19		0.50	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R365	1.38	0.19	0.50	Open	
R366	1.38	0.19	0.50	Open	
R367	1.38	0.19	0.50	Open	
R368	1.38	0.19	0.50	Open	
R369	1.38	0.19	0.50	Open	
R370	1.38	0.19	0.50	Open	
R371	1.38	0.19	0.50	Open	
R372	1.38	0.19	0.50	Open	
R373	1.38	0.19	0.50	Open	
R374	1.38	0.19	0.50	Open	
R375	1.38	0.19	0.50	Open	
R376	1.38	0.19	0.50	Open	
R377	1.38	0.19	0.50	Open	
R378	1.38	0.19	0.50	Open	
R379	1.38	0.19	0.50	Open	
R380	1.38	0.19	0.50	Open	
R381	1.38	0.19	0.50	Open	
R382	1.38	0.19	0.50	Open	
R383	1.38	0.19	0.50	Open	
R384	1.38	0.19	0.50	Open	
R385	1.38	0.19	0.50	Open	
R386	1.38	0.19	0.50	Open	
R387	1.38	0.19	0.50	Open	
R388	1.38	0.19	0.50	Open	
R389	1.38	0.19	0.50	Open	
R390	1.38	0.19	0.50	Open	
R391	1.38	0.19	0.50	Open	
R392	1.38	0.19	0.50	Open	
R393	1.38	0.19	0.50	Open	
R394	1.38	0.19	0.50	Open	
R395	1.38	0.19	0.50	Open	
R396	1.38	0.19	0.50	Open	
R397	1.38	0.19	0.50	Open	
R398	1.38	0.19	0.50	Open	
R399	1.38	0.19	0.50	Open	
R400	1.38	0.19	0.50	Open	
R401	1.38	0.19	0.50	Open	
R402	1.38	0.19	0.50	Open	
R403	1.38	0.19	0.50	Open	
R404	1.38	0.19	0.50	Open	
R405	1.38	0.19	0.50	Open	
R406	1.38	0.19	0.50	Open	
R407	1.38	0.19	0.50	Open	
R408	1.38	0.19	0.50	Open	
R409	1.38	0.19	0.50	Open	
R410	1.38	0.19	0.50	Open	
R411	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R412	1.38	0.19	0.50	Open	
R413	1.38	0.19	0.50	Open	
R414	1.38	0.19	0.50	Open	
R415	1.38	0.19	0.50	Open	
R416	1.38	0.19	0.50	Open	
R417	1.38	0.19	0.50	Open	
R418	1.38	0.19	0.50	Open	
R419	1.38	0.19	0.50	Open	
R420	1.38	0.19	0.50	Open	
R421	1.38	0.19	0.50	Open	
R422	1.38	0.19	0.50	Open	
R423	1.38	0.19	0.50	Open	
R424	1.38	0.19	0.50	Open	
R425	1.38	0.19	0.50	Open	
R426	1.38	0.19	0.50	Open	
R427	1.38	0.19	0.50	Open	
R428	1.38	0.19	0.50	Open	
R429	1.38	0.19	0.50	Open	
R430	1.38	0.19	0.50	Open	
R431	1.38	0.19	0.50	Open	
R432	1.38	0.19	0.50	Open	
R433	1.38	0.19	0.50	Open	
R434	1.38	0.19	0.50	Open	
R435	1.38	0.19	0.50	Open	
R436	1.38	0.19	0.50	Open	
R437	1.38	0.19	0.50	Open	
R438	1.38	0.19	0.50	Open	
R439	1.38	0.19	0.50	Open	
R440	1.38	0.19	0.50	Open	
R441	1.38	0.19	0.50	Open	
R442	1.38	0.19	0.50	Open	
R443	1.38	0.19	0.50	Open	
R444	1.38	0.19	0.50	Open	
R445	1.38	0.19	0.50	Open	
R446	1.38	0.19	0.50	Open	
R447	1.38	0.19	0.50	Open	
R448	1.38	0.19	0.50	Open	
R449	1.38	0.19	0.50	Open	
R450	1.38	0.19	0.50	Open	
R451	1.38	0.19	0.50	Open	
R452	1.38	0.19	0.50	Open	
R453	1.38	0.19	0.50	Open	
R454	1.38	0.19	0.50	Open	
R455	1.38	0.19	0.50	Open	
R456	1.38	0.19	0.50	Open	
R457	1.38	0.19	0.50	Open	
R458	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R459	1.38	0.19	0.50	Open	
R460	1.38	0.19	0.50	Open	
R461	1.38	0.19	0.50	Open	
R462	1.38	0.19	0.50	Open	
R463	1.38	0.19	0.50	Open	
R464	1.38	0.19	0.50	Open	
R465	1.38	0.19	0.50	Open	
R466	1.38	0.19	0.50	Open	
R467	1.38	0.19	0.50	Open	
R468	1.38	0.19	0.50	Open	
R469	1.38	0.19	0.50	Open	
R470	1.38	0.19	0.50	Open	
R471	1.38	0.19	0.50	Open	
R472	1.38	0.19	0.50	Open	
R473	1.38	0.19	0.50	Open	
R474	1.38	0.19	0.50	Open	
R475	1.38	0.19	0.50	Open	
R476	1.38	0.19	0.50	Open	
R477	1.38	0.19	0.50	Open	
R478	1.38	0.19	0.50	Open	
R479	1.38	0.19	0.50	Open	
R480	1.38	0.19	0.50	Open	
R481	1.38	0.19	0.50	Open	
R482	1.38	0.19	0.50	Open	
R483	1.38	0.19	0.50	Open	
R484	1.38	0.19	0.50	Open	
R485	1.38	0.19	0.50	Open	
R486	1.38	0.19	0.50	Open	
R487	1.38	0.19	0.50	Open	
R488	1.38	0.19	0.50	Open	
R489	1.38	0.19	0.50	Open	
R490	1.38	0.19	0.50	Open	
R491	1.38	0.19	0.50	Open	
R492	1.38	0.19	0.50	Open	
R493	1.38	0.19	0.50	Open	
R494	1.38	0.19	0.50	Open	
R495	1.38	0.19	0.50	Open	
R496	1.38	0.19	0.50	Open	
R497	1.38	0.19	0.50	Open	
R498	1.38	0.19	0.50	Open	
R499	1.38	0.19	0.50	Open	
R500	1.38	0.19	0.50	Open	
R501	1.38	0.19	0.50	Open	
R502	1.38	0.19	0.50	Open	
R503	1.38	0.19	0.50	Open	
R504	1.38	0.19	0.50	Open	
R505	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R506	1.38	0.19	0.50	Open	
R507	1.38	0.19	0.50	Open	
R508	1.38	0.19	0.50	Open	
R509	1.38	0.19	0.50	Open	
R510	1.38	0.19	0.50	Open	
R511	1.38	0.19	0.50	Open	
R512	1.38	0.19	0.50	Open	
R513	1.38	0.19	0.50	Open	
R514	1.38	0.19	0.50	Open	
R515	1.38	0.19	0.50	Open	
R516	1.38	0.19	0.50	Open	
R517	1.38	0.19	0.50	Open	
R518	1.38	0.19	0.50	Open	
R519	1.38	0.19	0.50	Open	
R520	1.38	0.19	0.50	Open	
R521	1.38	0.19	0.50	Open	
R522	1.38	0.19	0.50	Open	
R523	1.38	0.19	0.50	Open	
R524	1.38	0.19	0.50	Open	
R525	1.38	0.19	0.50	Open	
R526	1.38	0.19	0.50	Open	
R527	1.38	0.19	0.50	Open	
R528	1.38	0.19	0.50	Open	
R529	1.38	0.19	0.50	Open	
R530	1.38	0.19	0.50	Open	
R531	1.38	0.19	0.50	Open	
R532	1.38	0.19	0.50	Open	
R533	1.38	0.19	0.50	Open	
R534	1.38	0.19	0.50	Open	
R535	1.38	0.19	0.50	Open	
R536	1.38	0.19	0.50	Open	
R537	1.38	0.19	0.50	Open	
R538	1.38	0.19	0.50	Open	
R539	1.38	0.19	0.50	Open	
R540	1.38	0.19	0.50	Open	
R541	1.38	0.19	0.50	Open	
R542	1.38	0.19	0.50	Open	
R543	1.38	0.19	0.50	Open	
R544	1.38	0.19	0.50	Open	
R545	1.38	0.19	0.50	Open	
R546	1.38	0.19	0.50	Open	
R547	1.38	0.19	0.50	Open	
R548	1.38	0.19	0.50	Open	
R549	1.38	0.19	0.50	Open	
R550	1.38	0.19	0.50	Open	
R551	1.38	0.19	0.50	Open	
R552	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R553	1.38	0.19	0.50	Open	
R554	1.38	0.19	0.50	Open	
R555	1.38	0.19	0.50	Open	
R556	1.38	0.19	0.50	Open	
R557	1.38	0.19	0.50	Open	
R558	1.38	0.19	0.50	Open	
R559	1.38	0.19	0.50	Open	
R560	1.38	0.19	0.50	Open	
R561	1.38	0.19	0.50	Open	
R562	1.38	0.19	0.50	Open	
R563	1.38	0.19	0.50	Open	
R566	1.38	0.19	0.50	Open	
R567	1.38	0.19	0.50	Open	
R568	1.38	0.19	0.50	Open	
R569	1.38	0.19	0.50	Open	
R570	1.38	0.19	0.50	Open	
R571	1.38	0.19	0.50	Open	
R572	1.38	0.19	0.50	Open	
R573	1.38	0.19	0.50	Open	
R574	1.38	0.19	0.50	Open	
R575	1.38	0.19	0.50	Open	
R576	1.38	0.19	0.50	Open	
R577	1.38	0.19	0.50	Open	
R578	1.38	0.19	0.50	Open	
R579	1.38	0.19	0.50	Open	
R580	1.38	0.19	0.50	Open	
R581	1.38	0.19	0.50	Open	
R582	1.38	0.19	0.50	Open	
R583	1.38	0.19	0.50	Open	
R584	1.38	0.19	0.50	Open	
R585	1.38	0.19	0.50	Open	
R586	1.38	0.19	0.50	Open	
R587	1.38	0.19	0.50	Open	
R588	1.38	0.19	0.50	Open	
R589	1.38	0.19	0.50	Open	
R590	1.38	0.19	0.50	Open	
R591	1.38	0.19	0.50	Open	
R592	1.38	0.19	0.50	Open	
R593	1.38	0.19	0.50	Open	
R594	1.38	0.19	0.50	Open	
R595	1.38	0.19	0.50	Open	
R596	1.38	0.19	0.50	Open	
R597	1.38	0.19	0.50	Open	
R598	1.38	0.19	0.50	Open	
R599	1.38	0.19	0.50	Open	
R600	1.38	0.19	0.50	Open	
R601	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R602	1.38	0.19	0.50	Open	
R603	1.38	0.19	0.50	Open	
R604	1.38	0.19	0.50	Open	
R605	1.38	0.19	0.50	Open	
R606	1.38	0.19	0.50	Open	
R607	1.38	0.19	0.50	Open	
R608	1.38	0.19	0.50	Open	
R609	1.38	0.19	0.50	Open	
R610	1.38	0.19	0.50	Open	
R611	1.38	0.19	0.50	Open	
R612	1.38	0.19	0.50	Open	
R613	1.38	0.19	0.50	Open	
R614	1.38	0.19	0.50	Open	
R615	1.38	0.19	0.50	Open	
R616	1.38	0.19	0.50	Open	
R617	1.38	0.19	0.50	Open	
R618	1.38	0.19	0.50	Open	
R619	1.38	0.19	0.50	Open	
R620	1.38	0.19	0.50	Open	
R621	1.38	0.19	0.50	Open	
R622	1.38	0.19	0.50	Open	
R623	1.38	0.19	0.50	Open	
R624	1.38	0.19	0.50	Open	
R625	1.38	0.19	0.50	Open	
R626	1.38	0.19	0.50	Open	
R627	1.38	0.19	0.50	Open	
R628	1.38	0.19	0.50	Open	
R629	1.38	0.19	0.50	Open	
R630	1.38	0.19	0.50	Open	
R631	1.38	0.19	0.50	Open	
R632	1.38	0.19	0.50	Open	
R633	1.38	0.19	0.50	Open	
R634	1.38	0.19	0.50	Open	
R635	1.38	0.19	0.50	Open	
R636	1.38	0.19	0.50	Open	
R637	1.38	0.19	0.50	Open	
R638	1.38	0.19	0.50	Open	
R639	1.38	0.19	0.50	Open	
R640	1.38	0.19	0.50	Open	
R641	1.38	0.19	0.50	Open	
R642	1.38	0.19	0.50	Open	
R643	1.38	0.19	0.50	Open	
R644	1.38	0.19	0.50	Open	
R645	1.38	0.19	0.50	Open	
R646	1.38	0.19	0.50	Open	
R647	1.38	0.19	0.50	Open	
R648	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R649	1.38	0.19		0.50	Open
R650	1.38	0.19		0.50	Open
R651	1.38	0.19		0.50	Open
R652	1.38	0.19		0.50	Open
R653	1.38	0.19		0.50	Open
R37	8.85	0.15		0.09	Open
P1	0.00	0.00		0.00	Closed Pump
P2	150.00	0.00		-80.00	Open Pump
P3	150.00	0.00		-80.00	Open Pump
P4	150.00	0.00		-80.00	Open Pump

1.4 IPOTESI DI FUNZIONAMENTO B

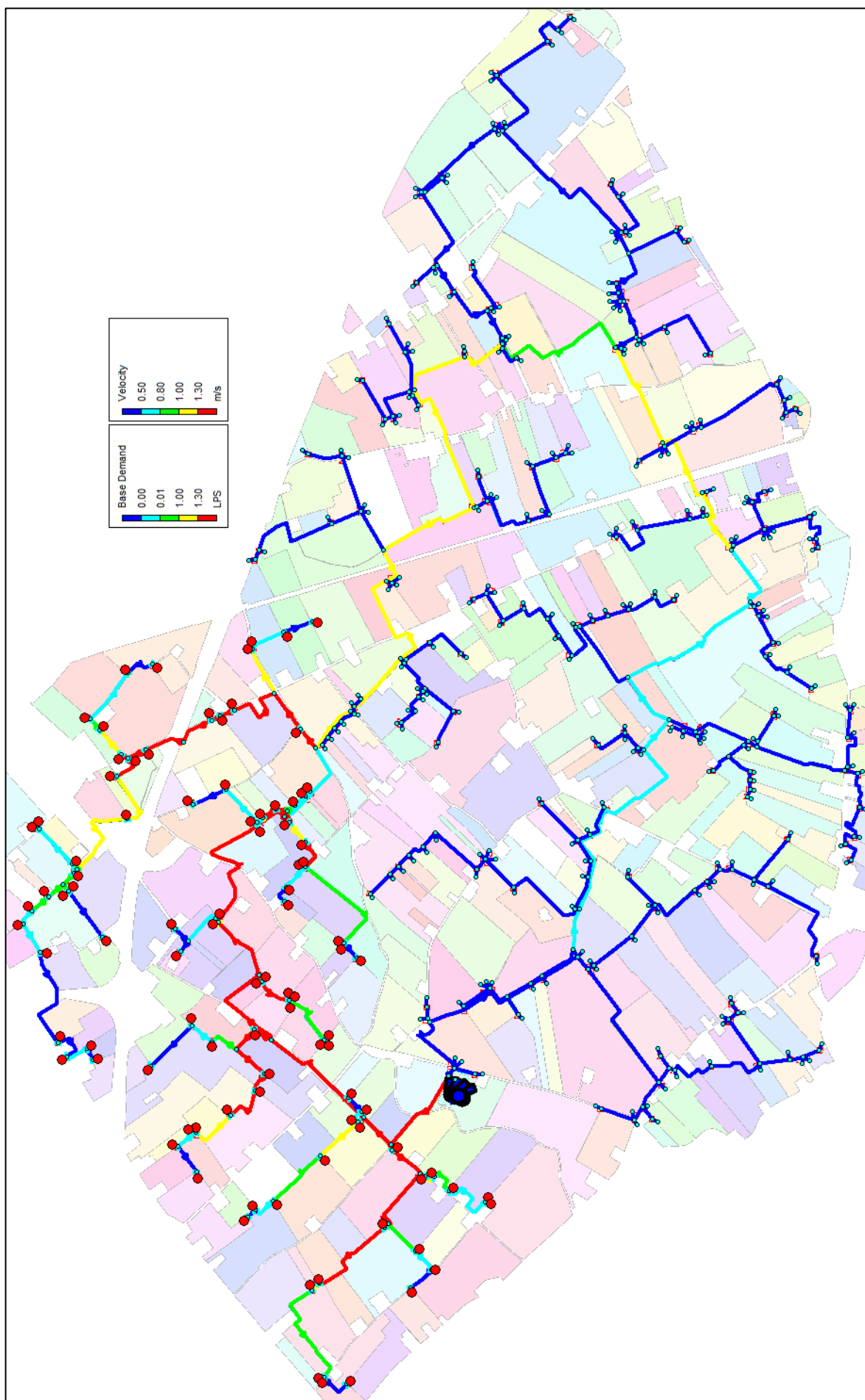


Figura 6 – Risultati della simulazione : base demand nei nodi e velocità nei rami

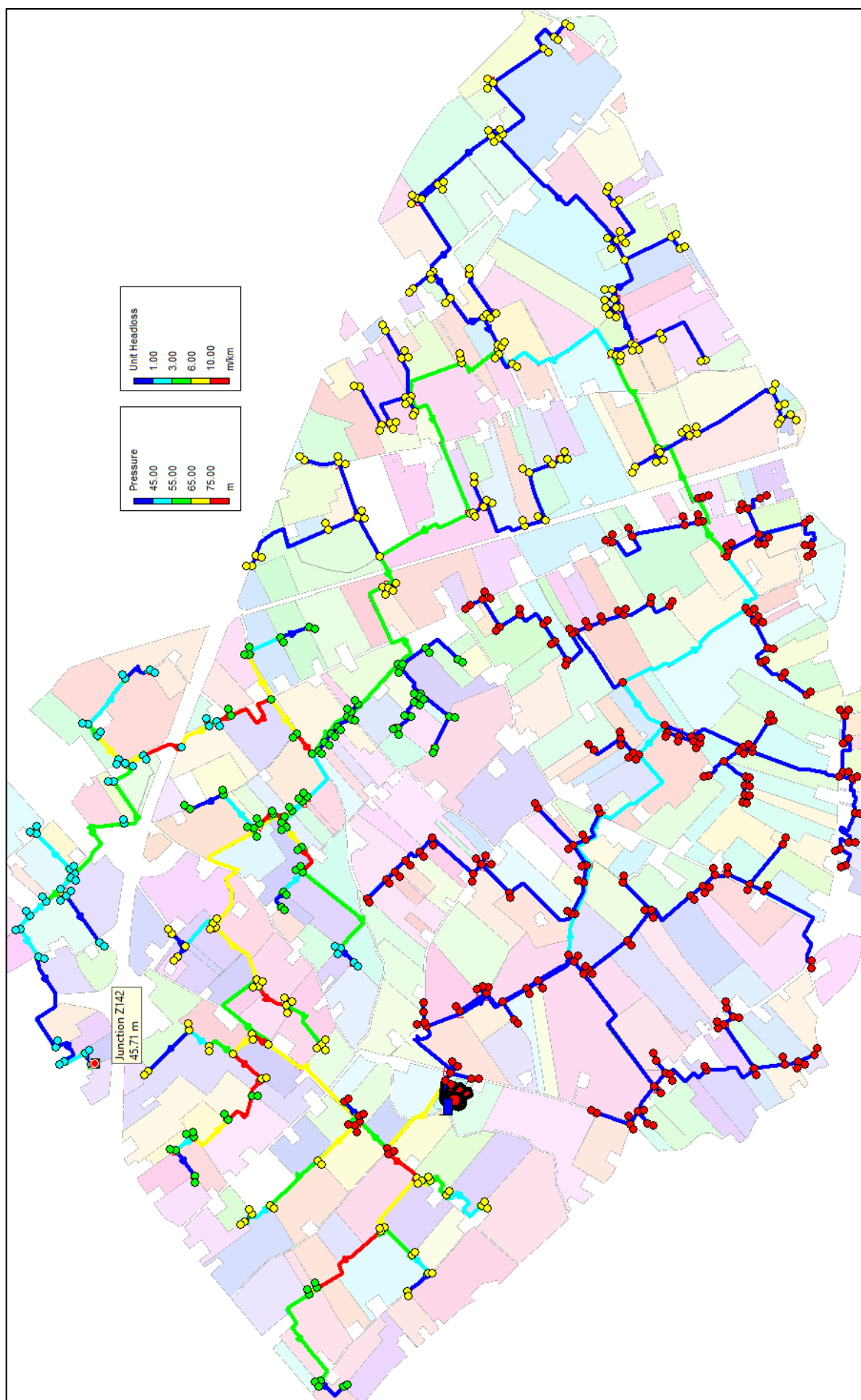


Figura 7 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE BONCELLINO IPOTESI FUNZIONAMENTO B

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
R1	Z1	Z4	376.99	500
R2	Z1	Z3	36.23	500
R3	Z4	Z30	158.87	500
R4	Z30	Z29	511.94	400
R5	Z29	Z28	434.27	400
R6	Z28	Z27	287.35	312.8
R7	Z27	Z26	776.86	312.8
R8	Z26	Z25	386.60	312.8
R9	Z25	Z24	215.34	312.8
R10	Z24	Z23	301.23	312.8
R11	Z23	Z22	483.92	312.8
R12	Z22	Z21	165.41	312.8
R13	Z21	Z20	432.52	312.8
R14	Z20	Z19	589.94	312.8
R15	Z19	Z18	288.16	312.8
R16	Z18	Z17	195.48	312.8
R17	Z17	Z16	639.32	312.8
R18	Z16	Z15	449.15	312.8
R19	Z15	Z14	322.70	312.8
R20	Z14	Z13	121.51	312.8
R21	Z13	Z12	176.09	312.8
R22	Z12	Z11	283.53	400
R23	Z11	Z10	623.06	400
R24	Z10	Z9	252.99	400
R25	Z9	Z8	161.10	400
R26	Z8	Z7	965.02	400
R27	Z7	Z6	174.34	400
R28	Z6	Z2	733.02	500
R29	Z2	Z3	295.18	500
R30	Z17	Z31	20.64	277.6
R31	Z31	Z32	131.11	277.6
R32	Z32	Z33	193.47	277.6
R33	Z33	Z34	130.26	277.6
R34	Z34	Z35	378.35	277.6
R35	Z35	Z36	399.85	277.6
R36	Z36	Z37	45.95	277.6
R39	Z39	Z40	159.80	277.6

Link ID	Start Node	End Node	Length m	Diameter mm
R40	Z40	Z16	93.15	277.6
R41	Z25	Z41	102.26	312.8
R42	Z41	Z42	180.32	312.8
R43	Z42	Z44	302.32	277.6
R44	Z44	Z45	64.21	277.6
R45	Z45	Z46	36.74	277.6
R46	Z46	Z43	156.53	277.6
R47	Z9	Z47	121.61	221.2
R48	Z47	Z48	240.32	221.2
R49	Z4	Z49	24.55	197.4
R50	Z49	Z50	155.79	197.4
R51	Z50	Z51	282.48	197.4
R52	Z52	Z1	29.23	500
R53	Z29	Z53	79.69	197.4
R54	Z53	Z54	111.39	197.4
R55	Z43	Z55	168.27	277.6
R56	Z55	Z56	81.61	277.6
R57	Z56	Z57	122.30	277.6
R58	Z57	Z58	248.24	277.6
R59	Z58	Z59	408.67	277.6
R60	Z48	Z60	42.59	197.4
R61	Z60	Z61	381.34	197.4
R62	Z10	Z62	326.51	197.4
R63	Z6	Z63	37.20	197.4
R64	Z63	Z64	65.06	197.4
R65	Z64	Z65	27.55	197.4
R66	Z65	Z66	197.52	197.4
R67	Z66	Z67	159.32	197.4
R68	Z64	Z68	593.09	197.4
R69	Z68	Z69	73.39	197.4
R71	Z50	Z70	19.58	141
R72	Z70	Z71	52.37	141
R73	Z71	Z72	134.03	141
R74	Z72	Z73	272.89	141
R75	Z51	Z74	21.33	141
R76	Z74	Z75	171.77	141
R77	Z75	Z76	100.49	141
R78	Z76	Z77	113.17	141
R79	Z74	Z78	388.18	141
R80	Z78	Z79	41.68	141
R81	Z79	Z80	492.04	141
R82	Z80	Z81	136.69	141
R83	Z30	Z82	28.20	141
R84	Z82	Z83	210.10	141
R85	Z83	Z84	273.85	141
R86	Z84	Z85	100.05	141
R87	Z85	Z86	44.57	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R88	Z82	Z88	63.06	141
R89	Z88	Z87	83.04	141
R90	Z54	Z94	156.07	141
R91	Z94	Z93	83.07	141
R92	Z93	Z92	187.75	141
R93	Z92	Z91	200.47	141
R94	Z91	Z90	94.69	141
R95	Z90	Z89	132.30	141
R96	Z54	Z95	125.84	141
R97	Z95	Z96	103.76	141
R98	Z96	Z97	240.97	141
R99	Z28	Z98	29.24	141
R100	Z98	Z99	145.56	141
R101	Z99	Z100	238.71	141
R102	Z27	Z101	21.88	141
R103	Z101	Z102	160.47	141
R104	Z102	Z103	54.42	141
R105	Z102	Z104	75.70	141
R106	Z26	Z105	28.55	221.2
R107	Z105	Z106	105.99	197.4
R108	Z106	Z107	133.09	141
R109	Z107	Z110	114.87	141
R110	Z110	Z111	81.12	141
R111	Z107	Z108	472.49	141
R112	Z108	Z109	82.44	141
R113	Z105	Z112	46.30	197.4
R114	Z112	Z113	49.61	141
R115	Z113	Z114	65.69	141
R116	Z114	Z115	30.56	141
R117	Z115	Z116	187.17	141
R118	Z116	Z117	152.14	141
R119	Z112	Z118	39.18	141
R120	Z118	Z119	57.41	141
R121	Z119	Z120	27.68	141
R122	Z42	Z121	207.55	141
R123	Z121	Z122	148.77	141
R124	Z122	Z123	127.14	141
R125	Z124	Z125	129.31	141
R126	Z125	Z126	246.99	141
R127	Z126	Z127	60.88	141
R128	Z127	Z128	133.26	141
R129	Z56	Z128	33.52	141
R130	Z59	Z129	27.91	141
R131	Z129	Z130	199.21	141
R132	Z59	Z131	20.63	277.6
R133	Z131	Z132	65.50	277.6
R134	Z132	Z133	35.33	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R135	Z133	Z134	237.49	141
R136	Z132	Z135	76.63	221.2
R137	Z135	Z136	91.24	221.2
R138	Z136	Z137	70.66	221.2
R139	Z137	Z138	138.52	221.2
R140	Z138	Z139	474.00	221.2
R141	Z139	Z140	161.81	221.2
R142	Z140	Z141	100.63	141
R143	Z141	Z142	51.23	141
R144	Z24	Z143	18.52	141
R145	Z143	Z144	31.51	141
R146	Z144	Z145	39.17	141
R147	Z143	Z146	67.46	141
R148	Z146	Z147	39.15	141
R149	Z147	Z148	44.74	141
R150	Z148	Z149	41.44	141
R151	Z150	Z23	22.15	141
R152	Z150	Z153	17.92	141
R153	Z153	Z151	116.34	141
R154	Z151	Z152	177.89	141
R155	Z150	Z154	144.12	141
R156	Z154	Z155	151.16	141
R157	Z155	Z156	143.30	141
R158	Z154	Z157	14.93	141
R159	Z157	Z158	31.41	141
R160	Z158	Z159	75.87	141
R161	Z159	Z160	73.37	141
R162	Z22	Z161	23.71	141
R163	Z21	Z162	186.92	141
R164	Z162	Z163	129.60	141
R165	Z163	Z164	430.09	141
R166	Z164	Z165	43.79	141
R167	Z162	Z166	242.40	141
R168	Z166	Z167	143.47	141
R169	Z20	Z168	13.72	197.4
R170	Z168	Z169	46.96	197.4
R171	Z169	Z170	108.21	141
R172	Z169	Z171	252.22	197.4
R173	Z171	Z172	90.88	141
R174	Z172	Z173	208.23	141
R175	Z173	Z174	103.57	141
R176	Z174	Z175	41.91	141
R177	Z19	Z176	26.61	197.4
R178	Z176	Z179	22.99	141
R179	Z179	Z180	45.71	141
R180	Z176	Z177	176.45	141
R181	Z177	Z178	131.66	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R182	Z176	Z181	185.32	141
R183	Z181	Z182	35.93	141
R184	Z182	Z183	183.87	141
R185	Z18	Z184	21.45	141
R186	Z31	Z187	17.99	141
R187	Z187	Z186	36.73	141
R188	Z186	Z185	91.70	141
R189	Z32	Z188	17.39	141
R190	Z188	Z189	214.03	141
R191	Z34	Z190	16.51	141
R192	Z190	Z191	91.95	141
R193	Z35	Z192	18.55	141
R194	Z192	Z193	88.12	141
R195	Z37	Z194	21.70	221.2
R196	Z194	Z195	304.20	221.2
R197	Z195	Z196	254.68	221.2
R198	Z196	Z197	154.03	141
R199	Z197	Z198	74.29	141
R200	Z38	Z199	20.82	141
R201	Z199	Z200	198.07	141
R202	Z200	Z201	61.79	141
R203	Z38	Z202	100.55	277.6
R204	Z202	Z39	249.63	277.6
R205	Z202	Z203	216.43	141
R206	Z203	Z204	60.37	141
R207	Z39	Z205	17.80	141
R208	Z205	Z206	36.88	141
R209	Z206	Z207	40.28	141
R210	Z40	Z208	17.66	141
R211	Z208	Z209	115.69	141
R212	Z209	Z210	291.13	141
R213	Z16	Z211	21.66	141
R214	Z15	Z212	16.25	197.4
R215	Z212	Z219	117.93	141
R216	Z212	Z213	141.13	197.4
R217	Z213	Z214	33.48	197.4
R218	Z214	Z215	375.87	197.4
R219	Z215	Z216	70.07	141
R220	Z216	Z217	52.26	141
R221	Z217	Z218	42.37	141
R222	Z14	Z220	20.17	141
R223	Z13	Z221	18.14	141
R224	Z221	Z222	56.74	141
R225	Z222	Z223	222.95	141
R226	Z223	Z224	212.85	141
R227	Z12	Z225	23.45	197.4
R228	Z225	Z226	144.31	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R229	Z226	Z229	194.01	141
R230	Z229	Z230	146.49	141
R231	Z230	Z231	36.13	141
R232	Z226	Z227	119.70	141
R233	Z227	Z228	88.55	141
R234	Z11	Z232	25.97	141
R235	Z232	Z233	42.28	141
R236	Z233	Z234	123.38	141
R237	Z234	Z235	89.55	141
R238	Z235	Z236	117.34	141
R239	Z236	Z237	121.53	141
R240	Z62	Z238	15.70	141
R241	Z238	Z239	163.82	141
R242	Z239	Z240	97.16	141
R243	Z240	Z241	85.25	141
R244	Z241	Z242	144.60	141
R245	Z242	Z243	99.06	141
R246	Z243	Z244	134.07	141
R247	Z244	Z245	58.07	141
R248	Z62	Z246	57.55	141
R249	Z246	Z247	65.50	141
R250	Z247	Z248	90.88	141
R251	Z248	Z249	123.03	141
R252	Z249	Z250	106.83	141
R253	Z47	Z251	21.24	141
R254	Z251	Z252	64.30	141
R255	Z252	Z253	48.96	141
R256	Z48	Z254	22.76	141
R257	Z254	Z255	76.57	141
R258	Z255	Z256	96.29	141
R259	Z255	Z257	109.65	141
R260	Z257	Z260	35.33	141
R261	Z258	Z259	36.27	141
R262	Z259	Z260	33.20	141
R263	Z60	Z261	21.13	141
R264	Z261	Z262	126.38	141
R265	Z61	Z263	21.78	141
R266	Z263	Z264	176.17	141
R267	Z264	Z265	113.99	141
R268	Z61	Z266	56.13	141
R269	Z266	Z267	164.61	141
R270	Z267	Z268	194.42	141
R271	Z268	Z269	80.35	141
R272	Z269	Z270	93.18	141
R273	Z8	Z271	24.62	141
R274	Z271	Z272	80.46	141
R275	Z272	Z273	139.79	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R276	Z7	Z274	17.00	141
R277	Z274	Z275	142.61	141
R278	Z275	Z276	70.95	141
R279	Z276	Z277	100.34	141
R280	Z277	Z280	212.67	141
R281	Z277	Z278	57.63	141
R282	Z278	Z279	145.20	141
R283	Z274	Z281	345.62	197.4
R284	Z281	Z282	164.02	141
R285	Z282	Z283	54.06	141
R286	Z283	Z284	225.21	141
R287	Z284	Z285	78.40	141
R288	Z285	Z286	88.42	141
R289	Z286	Z287	62.84	141
R290	Z287	Z288	47.97	141
R291	Z288	Z289	112.72	141
R292	Z69	Z290	62.74	141
R293	Z69	Z291	21.78	197.4
R294	Z291	Z292	213.78	197.4
R295	Z292	Z293	241.55	197.4
R296	Z293	Z294	220.84	141
R297	Z294	Z295	46.21	141
R298	Z295	Z296	45.28	141
R299	Z293	Z297	127.87	141
R300	Z297	Z298	56.12	141
R301	Z298	Z299	73.08	141
R302	Z67	Z300	164.85	141
R303	Z67	Z301	229.85	141
R304	Z301	Z302	62.81	141
R305	Z302	Z303	72.95	141
R306	Z303	Z304	57.99	141
R307	Z304	Z305	100.75	141
R308	Z305	Z306	217.67	141
R309	Z305	Z307	64.94	141
R310	Z307	Z308	454.50	141
R311	Z68	Z309	122.36	141
R312	Z309	Z312	65.15	141
R313	Z309	Z310	63.04	141
R314	Z310	Z311	144.30	141
R315	Z63	Z313	168.16	141
R316	Z313	Z314	57.79	141
R317	Z314	Z315	112.48	141
R318	Z315	Z316	88.44	141
R319	Z315	Z317	96.05	141
R320	Z317	Z318	132.38	141
R321	Z2	Z319	16.60	141
R322	Z319	Z320	46.93	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R323	Z3	Z321	90.37	141
R326	Z77	I10	5	96.8
R327	Z76	I9	5	96.8
R328	Z75	I8	5	96.8
R329	Z74	I7	5	96.8
R330	Z78	I11	5	96.8
R331	Z79	I12	5	96.8
R332	Z80	I13	5	96.8
R333	Z80	I14	5	96.8
R334	Z81	I15	5	96.8
R335	Z70	I2	5	96.8
R336	Z71	I3	5	96.8
R337	Z72	I4	5	96.8
R338	Z73	I5	5	96.8
R339	Z73	I6	5	96.8
R340	Z49	I1	5	96.8
R341	Z86	I23	5	96.8
R342	Z85	I22	5	96.8
R343	Z84	I21	5	96.8
R344	Z83	I20	5	96.8
R345	Z82	I18	5	96.8
R346	Z82	I19	5	96.8
R347	Z88	I17	5	96.8
R348	Z87	I16	5	96.8
R349	Z53	I24	5	96.8
R350	Z95	I25	5	96.8
R351	Z96	I26	5	96.8
R352	Z97	I27	5	96.8
R353	Z94	I28	5	96.8
R354	Z93	I29	5	96.8
R355	Z92	I30	5	96.8
R356	Z91	I31	5	96.8
R357	Z91	I32	5	96.8
R358	Z90	I33	5	96.8
R359	Z89	I34	5	96.8
R360	Z98	I35	5	96.8
R361	Z98	I36	5	96.8
R362	Z99	I37	5	96.8
R363	Z99	I38	5	96.8
R364	Z99	I39	5	96.8
R365	Z100	I40	5	96.8
R366	Z100	I42	5	96.8
R367	Z100	I41	5	96.8
R368	Z101	I43	5	96.8
R369	Z101	I44	5	96.8
R370	Z104	I45	5	96.8
R371	Z103	I46	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R372	Z109	I47	5	96.8
R373	Z108	I48	5	96.8
R374	Z108	I49	5	96.8
R375	Z111	I50	5	96.8
R376	Z110	I51	5	96.8
R377	Z107	I53	5	96.8
R378	Z107	I52	5	96.8
R379	Z106	I54	5	96.8
R380	Z105	I55	5	96.8
R381	Z113	I59	5	96.8
R382	Z114	I60	5	96.8
R383	Z115	I62	5	96.8
R384	Z115	I61	5	96.8
R385	Z116	I63	5	96.8
R386	Z117	I64	5	96.8
R387	Z118	I56	5	96.8
R388	Z119	I57	5	96.8
R389	Z120	I58	5	96.8
R390	Z142	I65	5	96.8
R391	Z141	I66	5	96.8
R392	Z140	I67	5	96.8
R393	Z139	I68	5	96.8
R394	Z138	I69	5	96.8
R395	Z137	I70	5	96.8
R396	Z136	I71	5	96.8
R397	Z135	I72	5	96.8
R398	Z134	I75	5	96.8
R399	Z133	I74	5	96.8
R400	Z133	I73	5	96.8
R401	Z131	I76	5	96.8
R402	Z129	I77	5	96.8
R403	Z130	I78	5	96.8
R404	Z130	I79	5	96.8
R405	Z58	I80	5	96.8
R406	Z57	I81	5	96.8
R407	Z56	I82	5	96.8
R408	Z128	I83	5	96.8
R409	Z127	I84	5	96.8
R410	Z126	I85	5	96.8
R411	Z125	I86	5	96.8
R412	Z124	I87	5	96.8
R413	Z55	I88	5	96.8
R414	Z46	I89	5	96.8
R415	Z45	I90	5	96.8
R416	Z44	I91	5	96.8
R417	Z121	I92	5	96.8
R418	Z121	I93	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R419	Z122	I94	5	96.8
R420	Z123	I95	5	96.8
R421	Z41	I96	5	96.8
R422	Z149	I97	5	96.8
R423	Z148	I98	5	96.8
R424	Z147	I99	5	96.8
R425	Z146	I100	5	96.8
R426	Z143	I101	5	96.8
R427	Z144	I102	5	96.8
R428	Z145	I103	5	96.8
R429	Z160	I105	5	96.8
R430	Z160	I104	5	96.8
R431	Z159	I106	5	96.8
R432	Z158	I107	5	96.8
R433	Z157	I109	5	96.8
R434	Z157	I108	5	96.8
R435	Z156	I110	5	96.8
R436	Z155	I111	5	96.8
R437	Z150	I112	5	96.8
R438	Z151	I113	5	96.8
R439	Z152	I114	5	96.8
R440	Z161	I115	5	96.8
R441	Z161	I116	5	96.8
R442	Z161	I117	5	96.8
R443	Z165	I118	5	96.8
R444	Z164	I119	5	96.8
R445	Z163	I120	5	96.8
R446	Z162	I122	5	96.8
R447	Z162	I121	5	96.8
R448	Z166	I123	5	96.8
R449	Z166	I124	5	96.8
R450	Z167	I125	5	96.8
R451	Z238	I126	5	96.8
R452	Z239	I127	5	96.8
R453	Z240	I128	5	96.8
R454	Z241	I129	5	96.8
R455	Z242	I130	5	96.8
R456	Z243	I131	5	96.8
R457	Z244	I133	5	96.8
R458	Z244	I132	5	96.8
R459	Z245	I134	5	96.8
R460	Z246	I135	5	96.8
R461	Z247	I136	5	96.8
R462	Z248	I137	5	96.8
R463	Z248	I138	5	96.8
R464	Z249	I139	5	96.8
R465	Z250	I140	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R466	Z271	I142	5	96.8
R467	Z271	I141	5	96.8
R468	Z272	I143	5	96.8
R469	Z272	I144	5	96.8
R470	Z273	I145	5	96.8
R471	Z274	I146	5	96.8
R472	Z275	I147	5	96.8
R473	Z276	I148	5	96.8
R474	Z277	I149	5	96.8
R475	Z280	I150	5	96.8
R476	Z278	I151	5	96.8
R477	Z279	I152	5	96.8
R478	Z281	I153	5	96.8
R479	Z282	I154	5	96.8
R480	Z282	I155	5	96.8
R481	Z282	I156	5	96.8
R482	Z283	I157	5	96.8
R483	Z284	I158	5	96.8
R484	Z285	I159	5	96.8
R485	Z286	I160	5	96.8
R486	Z287	I161	5	96.8
R487	Z288	I162	5	96.8
R488	Z289	I163	5	96.8
R489	Z63	I164	5	96.8
R490	Z65	I165	5	96.8
R491	Z65	I166	5	96.8
R492	Z66	I167	5	96.8
R493	Z67	I169	5	96.8
R494	Z67	I170	5	96.8
R495	Z300	I168	5	96.8
R496	Z301	I171	5	96.8
R497	Z302	I172	5	96.8
R498	Z302	I173	5	96.8
R499	Z303	I174	5	96.8
R500	Z304	I175	5	96.8
R501	Z305	I176	5	96.8
R502	Z306	I177	5	96.8
R503	Z307	I178	5	96.8
R504	Z308	I179	5	96.8
R505	Z311	I180	5	96.8
R506	Z310	I181	5	96.8
R507	Z310	I182	5	96.8
R508	Z309	I183	5	96.8
R509	Z312	I184	5	96.8
R510	Z68	I185	5	96.8
R511	Z290	I186	5	96.8
R512	Z291	I187	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R513	Z292	I188	5	96.8
R514	Z293	I193	5	96.8
R515	Z294	I189	5	96.8
R516	Z294	I190	5	96.8
R517	Z295	I191	5	96.8
R518	Z296	I192	5	96.8
R519	Z297	I194	5	96.8
R520	Z298	I195	5	96.8
R521	Z298	I196	5	96.8
R522	Z299	I197	5	96.8
R523	Z313	I198	5	96.8
R524	Z314	I199	5	96.8
R525	Z316	I200	5	96.8
R526	Z317	I201	5	96.8
R527	Z317	I202	5	96.8
R528	Z317	I203	5	96.8
R529	Z318	I204	5	96.8
R530	Z320	I209	5	96.8
R531	Z319	I208	5	96.8
R532	Z3	I206	5	96.8
R533	Z3	I205	5	96.8
R534	Z321	I207	5	96.8
R535	Z168	I210	5	96.8
R536	Z170	I213	5	96.8
R537	Z169	I212	5	96.8
R538	Z169	I211	5	96.8
R539	Z171	I214	5	96.8
R540	Z172	I215	5	96.8
R541	Z173	I216	5	96.8
R542	Z174	I217	5	96.8
R543	Z175	I218	5	96.8
R544	Z175	I219	5	96.8
R545	Z183	I220	5	96.8
R546	Z182	I221	5	96.8
R547	Z181	I223	5	96.8
R548	Z181	I222	5	96.8
R549	Z179	I225	5	96.8
R550	Z180	I224	5	96.8
R551	Z177	I226	5	96.8
R552	Z177	I227	5	96.8
R553	Z178	I228	5	96.8
R554	Z184	I229	5	96.8
R555	Z186	I231	5	96.8
R556	Z185	I232	5	96.8
R557	Z187	I230	5	96.8
R558	Z188	I233	5	96.8
R559	Z188	I234	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R560	Z189	I235	5	96.8
R561	Z33	I236	5	96.8
R562	Z191	I237	5	96.8
R563	Z190	I238	5	96.8
R566	Z193	I241	5	96.8
R567	Z193	I242	5	96.8
R568	Z192	I240	5	96.8
R569	Z192	I239	5	96.8
R570	Z36	I243	5	96.8
R571	Z36	I244	5	96.8
R572	Z194	I245	5	96.8
R573	Z195	I246	5	96.8
R574	Z195	I247	5	96.8
R575	Z196	I248	5	96.8
R576	Z197	I249	5	96.8
R577	Z198	I250	22.13	96.8
R578	Z204	I251	5	96.8
R579	Z203	I252	5	96.8
R580	Z38	I258	5	96.8
R581	Z38	I257	5	96.8
R582	Z199	I256	5	96.8
R583	Z199	I255	5	96.8
R584	Z200	I254	5	96.8
R585	Z201	I253	5	96.8
R586	Z205	I259	5	96.8
R587	Z205	I260	5	96.8
R588	Z205	I261	5	96.8
R589	Z206	I262	5	96.8
R590	Z207	I263	5	96.8
R591	Z211	I264	5	96.8
R592	Z211	I265	5	96.8
R593	Z208	I267	5	96.8
R594	Z208	I266	5	96.8
R595	Z209	I268	5	96.8
R596	Z210	I269	5	96.8
R597	Z219	I270	5	96.8
R598	Z212	I272	5	96.8
R599	Z212	I271	5	96.8
R600	Z213	I273	5	96.8
R601	Z213	I274	5	96.8
R602	Z214	I275	5	96.8
R603	Z215	I276	5	96.8
R604	Z216	I277	5	96.8
R605	Z217	I278	5	96.8
R606	Z218	I279	5	96.8
R607	Z220	I280	5	96.8
R608	Z224	I281	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R609	Z224	I282	5	96.8
R610	Z223	I283	5	96.8
R611	Z222	I284	5	96.8
R612	Z221	I285	5	96.8
R613	Z225	I286	5	96.8
R614	Z225	I287	5	96.8
R615	Z226	I291	5	96.8
R616	Z226	I292	5	96.8
R617	Z226	I293	5	96.8
R618	Z227	I288	5	96.8
R619	Z227	I289	5	96.8
R620	Z228	I290	5	96.8
R621	Z229	I294	5	96.8
R622	Z230	I295	5	96.8
R623	Z231	I296	5	96.8
R624	Z232	I297	5	96.8
R625	Z233	I298	5	96.8
R626	Z233	I299	5	96.8
R627	Z234	I300	5	96.8
R628	Z235	I301	5	96.8
R629	Z236	I302	5	96.8
R630	Z237	I303	5	96.8
R631	Z265	I304	5	96.8
R632	Z265	I305	5	96.8
R633	Z264	I306	5	96.8
R634	Z263	I307	5	96.8
R635	Z266	I308	5	96.8
R636	Z267	I309	5	96.8
R637	Z268	I310	5	96.8
R638	Z269	I311	5	96.8
R639	Z270	I312	5	96.8
R640	Z260	I313	5	96.8
R641	Z259	I314	5	96.8
R642	Z258	I315	5	96.8
R643	Z257	I316	5	96.8
R644	Z256	I317	5	96.8
R645	Z254	I318	5	96.8
R646	Z261	I319	5	96.8
R647	Z262	I320	5	96.8
R648	Z262	I321	5	96.8
R649	Z253	I322	5	96.8
R650	Z252	I323	5	96.8
R651	Z251	I324	5	96.8
R652	Z251	I325	5	96.8
R653	Z251	I326	5	96.8
R37	Z38	Z37	706.98	277.6
P1	S1	Z52	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
P2	S1	Z52	#N/A	#N/A Pump
P3	S1	Z52	#N/A	#N/A Pump
P4	S1	Z52	#N/A	#N/A Pump

Energy Usage:

Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.84	156.84	0.00
P3	100.00	75.00	0.29	156.84	156.84	0.00
P4	100.00	75.00	0.29	156.84	156.84	0.00

Demand Charge: 0.00
Total Cost: 0.00

Node Results:

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1	0.00	89.75	79.75	0.00
Z2	0.00	89.60	79.60	0.00
Z3	0.00	89.72	79.72	0.00
Z4	0.00	87.46	77.46	0.00
Z6	0.00	89.29	79.29	0.00
Z7	0.00	89.07	79.07	0.00
Z8	0.00	87.85	77.85	0.00
Z9	0.00	87.65	77.65	0.00
Z10	0.00	87.33	77.33	0.00
Z11	0.00	86.54	76.54	0.00
Z12	0.00	86.18	76.18	0.00
Z13	0.00	85.55	75.55	0.00
Z14	0.00	85.12	75.12	0.00
Z15	0.00	83.98	73.98	0.00
Z16	0.00	82.39	72.39	0.00
Z17	0.00	81.05	71.05	0.00
Z18	0.00	80.36	70.36	0.00
Z19	0.00	79.33	69.33	0.00
Z20	0.00	77.24	67.24	0.00
Z21	0.00	75.71	65.71	0.00
Z22	0.00	75.12	65.12	0.00
Z23	0.00	73.41	63.41	0.00
Z24	0.00	72.34	62.34	0.00
Z25	0.00	71.58	61.58	0.00
Z26	0.00	72.09	62.09	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z27	0.00	77.79	67.79	0.00
Z28	0.00	80.46	70.46	0.00
Z29	0.00	82.72	72.72	0.00
Z30	0.00	86.91	76.91	0.00
Z31	0.00	81.07	71.07	0.00
Z32	0.00	81.14	71.14	0.00
Z33	0.00	81.24	71.24	0.00
Z34	0.00	81.30	71.30	0.00
Z35	0.00	81.49	71.49	0.00
Z36	0.00	81.69	71.69	0.00
Z37	0.00	81.71	71.71	0.00
Z38	0.00	82.07	72.07	0.00
Z39	0.00	82.24	72.24	0.00
Z40	0.00	82.32	72.32	0.00
Z41	0.00	70.37	60.37	0.00
Z42	0.00	68.95	58.95	0.00
Z43	0.00	63.26	53.26	0.00
Z44	0.00	65.64	55.64	0.00
Z45	0.00	64.98	54.98	0.00
Z46	0.00	64.63	54.63	0.00
Z47	0.00	87.65	77.65	0.00
Z48	0.00	87.65	77.65	0.00
Z49	0.00	86.49	76.49	0.00
Z50	0.00	83.81	73.81	0.00
Z51	0.00	81.66	71.66	0.00
Z52	0.00	90.00	80.00	0.00
Z53	0.00	81.58	71.58	0.00
Z54	0.00	80.55	70.55	0.00
Z55	0.00	61.46	51.46	0.00
Z56	0.00	60.80	50.80	0.00
Z57	0.00	60.23	50.23	0.00
Z58	0.00	59.20	49.20	0.00
Z59	0.00	57.70	47.70	0.00
Z60	0.00	87.65	77.65	0.00
Z61	0.00	87.65	77.65	0.00
Z62	0.00	87.33	77.33	0.00
Z63	0.00	89.29	79.29	0.00
Z64	0.00	89.29	79.29	0.00
Z65	0.00	89.29	79.29	0.00
Z66	0.00	89.29	79.29	0.00
Z67	0.00	89.29	79.29	0.00
Z68	0.00	89.29	79.29	0.00
Z69	0.00	89.29	79.29	0.00
Z70	0.00	83.34	73.34	0.00
Z71	0.00	82.88	72.88	0.00
Z72	0.00	82.18	72.18	0.00
Z73	0.00	81.50	71.50	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z74	0.00	80.15	70.15	0.00
Z75	0.00	79.18	69.18	0.00
Z76	0.00	78.93	68.93	0.00
Z77	0.00	78.85	68.85	0.00
Z78	0.00	74.98	64.98	0.00
Z79	0.00	74.61	64.61	0.00
Z80	0.00	72.05	62.05	0.00
Z81	0.00	71.95	61.95	0.00
Z82	0.00	85.48	75.48	0.00
Z83	0.00	83.63	73.63	0.00
Z84	0.00	82.20	72.20	0.00
Z85	0.00	81.95	71.95	0.00
Z86	0.00	81.92	71.92	0.00
Z87	0.00	85.23	75.23	0.00
Z88	0.00	85.29	75.29	0.00
Z89	0.00	70.12	60.12	0.00
Z90	0.00	70.22	60.22	0.00
Z91	0.00	70.45	60.45	0.00
Z92	0.00	72.22	62.22	0.00
Z93	0.00	74.72	64.72	0.00
Z94	0.00	76.27	66.27	0.00
Z95	0.00	79.82	69.82	0.00
Z96	0.00	79.56	69.56	0.00
Z97	0.00	79.39	69.39	0.00
Z98	0.00	79.00	69.00	0.00
Z99	0.00	76.28	66.28	0.00
Z100	0.00	75.04	65.04	0.00
Z101	0.00	77.47	67.47	0.00
Z102	0.00	77.07	67.07	0.00
Z103	0.00	77.03	67.03	0.00
Z104	0.00	77.01	67.01	0.00
Z105	0.00	71.20	61.20	0.00
Z106	0.00	70.55	60.55	0.00
Z107	0.00	67.25	57.25	0.00
Z108	0.00	64.71	54.71	0.00
Z109	0.00	64.65	54.65	0.00
Z110	0.00	66.96	56.96	0.00
Z111	0.00	66.90	56.90	0.00
Z112	0.00	70.67	60.67	0.00
Z113	0.00	69.75	59.75	0.00
Z114	0.00	68.87	58.87	0.00
Z115	0.00	68.61	58.61	0.00
Z116	0.00	68.14	58.14	0.00
Z117	0.00	68.03	58.03	0.00
Z118	0.00	70.40	60.40	0.00
Z119	0.00	70.25	60.25	0.00
Z120	0.00	70.23	60.23	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z121	0.00	66.99	56.99	0.00
Z122	0.00	66.62	56.62	0.00
Z123	0.00	66.52	56.52	0.00
Z124	0.00	57.94	47.94	0.00
Z125	0.00	58.03	48.03	0.00
Z126	0.00	58.65	48.65	0.00
Z127	0.00	58.97	48.97	0.00
Z128	0.00	60.14	50.14	0.00
Z129	0.00	57.48	47.48	0.00
Z130	0.00	56.98	46.98	0.00
Z131	0.00	57.57	47.57	0.00
Z132	0.00	57.43	47.43	0.00
Z133	0.00	57.17	47.17	0.00
Z134	0.00	57.00	47.00	0.00
Z135	0.00	57.16	47.16	0.00
Z136	0.00	56.91	46.91	0.00
Z137	0.00	56.77	46.77	0.00
Z138	0.00	56.56	46.56	0.00
Z139	0.00	56.09	46.09	0.00
Z140	0.00	55.99	45.99	0.00
Z141	0.00	55.74	45.74	0.00
Z142	0.00	55.71	45.71	0.00
Z143	0.00	72.34	62.34	0.00
Z144	0.00	72.34	62.34	0.00
Z145	0.00	72.34	62.34	0.00
Z146	0.00	72.34	62.34	0.00
Z147	0.00	72.34	62.34	0.00
Z148	0.00	72.34	62.34	0.00
Z149	0.00	72.34	62.34	0.00
Z150	0.00	73.41	63.41	0.00
Z151	0.00	73.41	63.41	0.00
Z152	0.00	73.41	63.41	0.00
Z153	0.00	73.41	63.41	0.00
Z154	0.00	73.41	63.41	0.00
Z155	0.00	73.41	63.41	0.00
Z156	0.00	73.41	63.41	0.00
Z157	0.00	73.41	63.41	0.00
Z158	0.00	73.41	63.41	0.00
Z159	0.00	73.41	63.41	0.00
Z160	0.00	73.41	63.41	0.00
Z161	0.00	75.12	65.12	0.00
Z162	0.00	75.71	65.71	0.00
Z163	0.00	75.71	65.71	0.00
Z164	0.00	75.71	65.71	0.00
Z165	0.00	75.71	65.71	0.00
Z166	0.00	75.71	65.71	0.00
Z167	0.00	75.71	65.71	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z168	0.00	77.24	67.24	0.00
Z169	0.00	77.24	67.24	0.00
Z170	0.00	77.24	67.24	0.00
Z171	0.00	77.24	67.24	0.00
Z172	0.00	77.24	67.24	0.00
Z173	0.00	77.24	67.24	0.00
Z174	0.00	77.24	67.24	0.00
Z175	0.00	77.24	67.24	0.00
Z176	0.00	79.33	69.33	0.00
Z177	0.00	79.33	69.33	0.00
Z178	0.00	79.33	69.33	0.00
Z179	0.00	79.33	69.33	0.00
Z180	0.00	79.33	69.33	0.00
Z181	0.00	79.33	69.33	0.00
Z182	0.00	79.33	69.33	0.00
Z183	0.00	79.33	69.33	0.00
Z184	0.00	80.36	70.36	0.00
Z185	0.00	81.07	71.07	0.00
Z186	0.00	81.07	71.07	0.00
Z187	0.00	81.07	71.07	0.00
Z188	0.00	81.14	71.14	0.00
Z189	0.00	81.14	71.14	0.00
Z190	0.00	81.30	71.30	0.00
Z191	0.00	81.30	71.30	0.00
Z192	0.00	81.49	71.49	0.00
Z193	0.00	81.49	71.49	0.00
Z194	0.00	81.71	71.71	0.00
Z195	0.00	81.71	71.71	0.00
Z196	0.00	81.71	71.71	0.00
Z197	0.00	81.71	71.71	0.00
Z198	0.00	81.71	71.71	0.00
Z199	0.00	82.07	72.07	0.00
Z200	0.00	82.07	72.07	0.00
Z201	0.00	82.07	72.07	0.00
Z202	0.00	82.12	72.12	0.00
Z203	0.00	82.12	72.12	0.00
Z204	0.00	82.12	72.12	0.00
Z205	0.00	82.24	72.24	0.00
Z206	0.00	82.24	72.24	0.00
Z207	0.00	82.24	72.24	0.00
Z208	0.00	82.32	72.32	0.00
Z209	0.00	82.32	72.32	0.00
Z210	0.00	82.32	72.32	0.00
Z211	0.00	82.39	72.39	0.00
Z212	0.00	83.98	73.98	0.00
Z213	0.00	83.98	73.98	0.00
Z214	0.00	83.98	73.98	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z215	0.00	83.98	73.98	0.00
Z216	0.00	83.98	73.98	0.00
Z217	0.00	83.98	73.98	0.00
Z218	0.00	83.98	73.98	0.00
Z219	0.00	83.98	73.98	0.00
Z220	0.00	85.12	75.12	0.00
Z221	0.00	85.55	75.55	0.00
Z222	0.00	85.55	75.55	0.00
Z223	0.00	85.55	75.55	0.00
Z224	0.00	85.55	75.55	0.00
Z225	0.00	86.18	76.18	0.00
Z226	0.00	86.18	76.18	0.00
Z227	0.00	86.18	76.18	0.00
Z228	0.00	86.18	76.18	0.00
Z229	0.00	86.18	76.18	0.00
Z230	0.00	86.18	76.18	0.00
Z231	0.00	86.18	76.18	0.00
Z232	0.00	86.54	76.54	0.00
Z233	0.00	86.54	76.54	0.00
Z234	0.00	86.54	76.54	0.00
Z235	0.00	86.54	76.54	0.00
Z236	0.00	86.54	76.54	0.00
Z237	0.00	86.54	76.54	0.00
Z238	0.00	87.33	77.33	0.00
Z239	0.00	87.33	77.33	0.00
Z240	0.00	87.33	77.33	0.00
Z241	0.00	87.33	77.33	0.00
Z242	0.00	87.33	77.33	0.00
Z243	0.00	87.33	77.33	0.00
Z244	0.00	87.33	77.33	0.00
Z245	0.00	87.33	77.33	0.00
Z246	0.00	87.33	77.33	0.00
Z247	0.00	87.33	77.33	0.00
Z248	0.00	87.33	77.33	0.00
Z249	0.00	87.33	77.33	0.00
Z250	0.00	87.33	77.33	0.00
Z251	0.00	87.65	77.65	0.00
Z252	0.00	87.65	77.65	0.00
Z253	0.00	87.65	77.65	0.00
Z254	0.00	87.65	77.65	0.00
Z255	0.00	87.65	77.65	0.00
Z256	0.00	87.65	77.65	0.00
Z257	0.00	87.65	77.65	0.00
Z258	0.00	87.65	77.65	0.00
Z259	0.00	87.65	77.65	0.00
Z260	0.00	87.65	77.65	0.00
Z261	0.00	87.65	77.65	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z262	0.00	87.65	77.65	0.00
Z263	0.00	87.65	77.65	0.00
Z264	0.00	87.65	77.65	0.00
Z265	0.00	87.65	77.65	0.00
Z266	0.00	87.65	77.65	0.00
Z267	0.00	87.65	77.65	0.00
Z268	0.00	87.65	77.65	0.00
Z269	0.00	87.65	77.65	0.00
Z270	0.00	87.65	77.65	0.00
Z271	0.00	87.85	77.85	0.00
Z272	0.00	87.85	77.85	0.00
Z273	0.00	87.85	77.85	0.00
Z274	0.00	89.07	79.07	0.00
Z275	0.00	89.07	79.07	0.00
Z276	0.00	89.07	79.07	0.00
Z277	0.00	89.07	79.07	0.00
Z278	0.00	89.07	79.07	0.00
Z279	0.00	89.07	79.07	0.00
Z280	0.00	89.07	79.07	0.00
Z281	0.00	89.07	79.07	0.00
Z282	0.00	89.07	79.07	0.00
Z283	0.00	89.07	79.07	0.00
Z284	0.00	89.07	79.07	0.00
Z285	0.00	89.07	79.07	0.00
Z286	0.00	89.07	79.07	0.00
Z287	0.00	89.07	79.07	0.00
Z288	0.00	89.07	79.07	0.00
Z289	0.00	89.07	79.07	0.00
Z290	0.00	89.29	79.29	0.00
Z291	0.00	89.29	79.29	0.00
Z292	0.00	89.29	79.29	0.00
Z293	0.00	89.29	79.29	0.00
Z294	0.00	89.29	79.29	0.00
Z295	0.00	89.29	79.29	0.00
Z296	0.00	89.29	79.29	0.00
Z297	0.00	89.29	79.29	0.00
Z298	0.00	89.29	79.29	0.00
Z299	0.00	89.29	79.29	0.00
Z300	0.00	89.29	79.29	0.00
Z301	0.00	89.29	79.29	0.00
Z302	0.00	89.29	79.29	0.00
Z303	0.00	89.29	79.29	0.00
Z304	0.00	89.29	79.29	0.00
Z305	0.00	89.29	79.29	0.00
Z306	0.00	89.29	79.29	0.00
Z307	0.00	89.29	79.29	0.00
Z308	0.00	89.29	79.29	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z309	0.00	89.29	79.29	0.00
Z310	0.00	89.29	79.29	0.00
Z311	0.00	89.29	79.29	0.00
Z312	0.00	89.29	79.29	0.00
Z313	0.00	89.29	79.29	0.00
Z314	0.00	89.29	79.29	0.00
Z315	0.00	89.29	79.29	0.00
Z316	0.00	89.29	79.29	0.00
Z317	0.00	89.29	79.29	0.00
Z318	0.00	89.29	79.29	0.00
Z319	0.00	89.60	79.60	0.00
Z320	0.00	89.60	79.60	0.00
Z321	0.00	89.72	79.72	0.00
I1	4.69	86.47	76.47	0.00
I2	4.69	83.32	73.32	0.00
I3	4.69	82.86	72.86	0.00
I4	4.69	82.16	72.16	0.00
I5	4.69	81.48	71.48	0.00
I6	4.69	81.48	71.48	0.00
I7	4.69	80.13	70.13	0.00
I8	4.69	79.16	69.16	0.00
I9	4.69	78.91	68.91	0.00
I10	4.69	78.82	68.82	0.00
I11	4.69	74.96	64.96	0.00
I12	4.69	74.59	64.59	0.00
I13	4.69	72.03	62.03	0.00
I14	4.69	72.03	62.03	0.00
I15	4.69	71.93	61.93	0.00
I23	4.69	81.90	71.90	0.00
I22	4.69	81.93	71.93	0.00
I21	4.69	82.18	72.18	0.00
I20	4.69	83.61	73.61	0.00
I19	4.69	85.46	75.46	0.00
I18	4.69	85.46	75.46	0.00
I17	4.69	85.27	75.27	0.00
I16	4.69	85.21	75.21	0.00
I24	4.69	81.56	71.56	0.00
I25	4.69	79.80	69.80	0.00
I26	4.69	79.54	69.54	0.00
I27	4.69	79.37	69.37	0.00
I28	4.69	76.25	66.25	0.00
I29	4.69	74.70	64.70	0.00
I30	4.69	72.20	62.20	0.00
I31	4.69	70.43	60.43	0.00
I32	4.69	70.43	60.43	0.00
I33	4.69	70.19	60.19	0.00
I34	4.69	70.10	60.10	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I35	4.69	78.98	68.98	0.00
I36	4.69	78.98	68.98	0.00
I37	4.69	76.26	66.26	0.00
I38	4.69	76.26	66.26	0.00
I39	4.69	76.26	66.26	0.00
I40	4.69	75.02	65.02	0.00
I41	4.69	75.02	65.02	0.00
I42	4.69	75.02	65.02	0.00
I43	4.69	77.45	67.45	0.00
I44	4.69	77.45	67.45	0.00
I45	4.69	76.98	66.98	0.00
I46	4.69	77.01	67.01	0.00
I47	4.69	64.63	54.63	0.00
I48	4.69	64.69	54.69	0.00
I49	4.69	64.69	54.69	0.00
I50	4.69	66.88	56.88	0.00
I51	4.69	66.94	56.94	0.00
I52	4.69	67.22	57.22	0.00
I53	4.69	67.22	57.22	0.00
I54	4.69	70.53	60.53	0.00
I55	4.69	71.18	61.18	0.00
I56	4.69	70.37	60.37	0.00
I57	4.69	70.23	60.23	0.00
I58	4.69	70.21	60.21	0.00
I59	4.69	69.73	59.73	0.00
I60	4.69	68.85	58.85	0.00
I61	4.69	68.58	58.58	0.00
I62	4.69	68.58	58.58	0.00
I63	4.69	68.12	58.12	0.00
I64	4.69	68.01	58.01	0.00
I65	4.69	55.68	45.68	0.00
I66	4.69	55.72	45.72	0.00
I67	4.69	55.97	45.97	0.00
I68	4.69	56.07	46.07	0.00
I69	4.69	56.54	46.54	0.00
I70	4.69	56.74	46.74	0.00
I71	4.69	56.89	46.89	0.00
I72	4.69	57.14	47.14	0.00
I73	4.69	57.15	47.15	0.00
I74	4.69	57.15	47.15	0.00
I75	4.69	56.98	46.98	0.00
I76	4.69	57.54	47.54	0.00
I77	4.69	57.45	47.45	0.00
I78	4.69	56.96	46.96	0.00
I79	4.69	56.96	46.96	0.00
I80	4.69	59.18	49.18	0.00
I81	4.69	60.21	50.21	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I82	4.69	60.77	50.77	0.00
I83	4.69	60.12	50.12	0.00
I84	4.69	58.95	48.95	0.00
I85	4.69	58.63	48.63	0.00
I86	4.69	58.01	48.01	0.00
I87	4.69	57.92	47.92	0.00
I88	4.69	61.44	51.44	0.00
I89	4.69	64.61	54.61	0.00
I90	4.69	64.96	54.96	0.00
I91	4.69	65.62	55.62	0.00
I92	4.69	66.96	56.96	0.00
I93	4.69	66.96	56.96	0.00
I94	4.69	66.59	56.59	0.00
I95	4.69	66.50	56.50	0.00
I96	4.69	70.35	60.35	0.00
I97	0.00	72.34	62.34	0.00
I98	0.00	72.34	62.34	0.00
I99	0.00	72.34	62.34	0.00
I100	0.00	72.34	62.34	0.00
I101	0.00	72.34	62.34	0.00
I102	0.00	72.34	62.34	0.00
I103	0.00	72.34	62.34	0.00
I104	0.00	73.41	63.41	0.00
I105	0.00	73.41	63.41	0.00
I106	0.00	73.41	63.41	0.00
I107	0.00	73.41	63.41	0.00
I108	0.00	73.41	63.41	0.00
I109	0.00	73.41	63.41	0.00
I110	0.00	73.41	63.41	0.00
I111	0.00	73.41	63.41	0.00
I112	0.00	73.41	63.41	0.00
I113	0.00	73.41	63.41	0.00
I114	0.00	73.41	63.41	0.00
I115	0.00	75.12	65.12	0.00
I116	0.00	75.12	65.12	0.00
I117	0.00	75.12	65.12	0.00
I118	0.00	75.71	65.71	0.00
I119	0.00	75.71	65.71	0.00
I120	0.00	75.71	65.71	0.00
I121	0.00	75.71	65.71	0.00
I122	0.00	75.71	65.71	0.00
I123	0.00	75.71	65.71	0.00
I124	0.00	75.71	65.71	0.00
I125	0.00	75.71	65.71	0.00
I126	0.00	87.33	77.33	0.00
I127	0.00	87.33	77.33	0.00
I128	0.00	87.33	77.33	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I129	0.00	87.33	77.33	0.00
I130	0.00	87.33	77.33	0.00
I131	0.00	87.33	77.33	0.00
I132	0.00	87.33	77.33	0.00
I133	0.00	87.33	77.33	0.00
I134	0.00	87.33	77.33	0.00
I135	0.00	87.33	77.33	0.00
I136	0.00	87.33	77.33	0.00
I137	0.00	87.33	77.33	0.00
I138	0.00	87.33	77.33	0.00
I139	0.00	87.33	77.33	0.00
I140	0.00	87.33	77.33	0.00
I141	0.00	87.85	77.85	0.00
I142	0.00	87.85	77.85	0.00
I143	0.00	87.85	77.85	0.00
I144	0.00	87.85	77.85	0.00
I145	0.00	87.85	77.85	0.00
I146	0.00	89.07	79.07	0.00
I147	0.00	89.07	79.07	0.00
I148	0.00	89.07	79.07	0.00
I149	0.00	89.07	79.07	0.00
I150	0.00	89.07	79.07	0.00
I151	0.00	89.07	79.07	0.00
I152	0.00	89.07	79.07	0.00
I153	0.00	89.07	79.07	0.00
I154	0.00	89.07	79.07	0.00
I155	0.00	89.07	79.07	0.00
I156	0.00	89.07	79.07	0.00
I157	0.00	89.07	79.07	0.00
I158	0.00	89.07	79.07	0.00
I159	0.00	89.07	79.07	0.00
I160	0.00	89.07	79.07	0.00
I161	0.00	89.07	79.07	0.00
I162	0.00	89.07	79.07	0.00
I163	0.00	89.07	79.07	0.00
I164	0.00	89.29	79.29	0.00
I165	0.00	89.29	79.29	0.00
I166	0.00	89.29	79.29	0.00
I167	0.00	89.29	79.29	0.00
I168	0.00	89.29	79.29	0.00
I169	0.00	89.29	79.29	0.00
I170	0.00	89.29	79.29	0.00
I171	0.00	89.29	79.29	0.00
I172	0.00	89.29	79.29	0.00
I173	0.00	89.29	79.29	0.00
I174	0.00	89.29	79.29	0.00
I175	0.00	89.29	79.29	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I176	0.00	89.29	79.29	0.00
I177	0.00	89.29	79.29	0.00
I178	0.00	89.29	79.29	0.00
I179	0.00	89.29	79.29	0.00
I180	0.00	89.29	79.29	0.00
I181	0.00	89.29	79.29	0.00
I182	0.00	89.29	79.29	0.00
I183	0.00	89.29	79.29	0.00
I184	0.00	89.29	79.29	0.00
I185	0.00	89.29	79.29	0.00
I186	0.00	89.29	79.29	0.00
I187	0.00	89.29	79.29	0.00
I188	0.00	89.29	79.29	0.00
I189	0.00	89.29	79.29	0.00
I190	0.00	89.29	79.29	0.00
I191	0.00	89.29	79.29	0.00
I192	0.00	89.29	79.29	0.00
I193	0.00	89.29	79.29	0.00
I194	0.00	89.29	79.29	0.00
I195	0.00	89.29	79.29	0.00
I196	0.00	89.29	79.29	0.00
I197	0.00	89.29	79.29	0.00
I198	0.00	89.29	79.29	0.00
I199	0.00	89.29	79.29	0.00
I200	0.00	89.29	79.29	0.00
I201	0.00	89.29	79.29	0.00
I202	0.00	89.29	79.29	0.00
I203	0.00	89.29	79.29	0.00
I204	0.00	89.29	79.29	0.00
I205	0.00	89.72	79.72	0.00
I206	0.00	89.72	79.72	0.00
I207	0.00	89.72	79.72	0.00
I208	0.00	89.60	79.60	0.00
I209	0.00	89.60	79.60	0.00
I210	0.00	77.24	67.24	0.00
I211	0.00	77.24	67.24	0.00
I212	0.00	77.24	67.24	0.00
I213	0.00	77.24	67.24	0.00
I214	0.00	77.24	67.24	0.00
I215	0.00	77.24	67.24	0.00
I216	0.00	77.24	67.24	0.00
I217	0.00	77.24	67.24	0.00
I218	0.00	77.24	67.24	0.00
I219	0.00	77.24	67.24	0.00
I220	0.00	79.33	69.33	0.00
I221	0.00	79.33	69.33	0.00
I222	0.00	79.33	69.33	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I223	0.00	79.33	69.33	0.00
I224	0.00	79.33	69.33	0.00
I225	0.00	79.33	69.33	0.00
I226	0.00	79.33	69.33	0.00
I227	0.00	79.33	69.33	0.00
I228	0.00	79.33	69.33	0.00
I229	0.00	80.36	70.36	0.00
I230	0.00	81.07	71.07	0.00
I231	0.00	81.07	71.07	0.00
I232	0.00	81.07	71.07	0.00
I233	0.00	81.14	71.14	0.00
I234	0.00	81.14	71.14	0.00
I235	0.00	81.14	71.14	0.00
I236	0.00	81.24	71.24	0.00
I237	0.00	81.30	71.30	0.00
I238	0.00	81.30	71.30	0.00
I239	0.00	81.49	71.49	0.00
I240	0.00	81.49	71.49	0.00
I241	0.00	81.49	71.49	0.00
I242	0.00	81.49	71.49	0.00
I243	0.00	81.69	71.69	0.00
I244	0.00	81.69	71.69	0.00
I245	0.00	81.71	71.71	0.00
I246	0.00	81.71	71.71	0.00
I247	0.00	81.71	71.71	0.00
I248	0.00	81.71	71.71	0.00
I249	0.00	81.71	71.71	0.00
I250	0.00	81.71	71.71	0.00
I251	0.00	82.12	72.12	0.00
I252	0.00	82.12	72.12	0.00
I253	0.00	82.07	72.07	0.00
I254	0.00	82.07	72.07	0.00
I255	0.00	82.07	72.07	0.00
I256	0.00	82.07	72.07	0.00
I257	0.00	82.07	72.07	0.00
I258	0.00	82.07	72.07	0.00
I259	0.00	82.24	72.24	0.00
I260	0.00	82.24	72.24	0.00
I261	0.00	82.24	72.24	0.00
I262	0.00	82.24	72.24	0.00
I263	0.00	82.24	72.24	0.00
I264	0.00	82.39	72.39	0.00
I265	0.00	82.39	72.39	0.00
I266	0.00	82.32	72.32	0.00
I267	0.00	82.32	72.32	0.00
I268	0.00	82.32	72.32	0.00
I269	0.00	82.32	72.32	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I270	0.00	83.98	73.98	0.00
I271	0.00	83.98	73.98	0.00
I272	0.00	83.98	73.98	0.00
I273	0.00	83.98	73.98	0.00
I274	0.00	83.98	73.98	0.00
I275	0.00	83.98	73.98	0.00
I276	0.00	83.98	73.98	0.00
I277	0.00	83.98	73.98	0.00
I278	0.00	83.98	73.98	0.00
I279	0.00	83.98	73.98	0.00
I280	0.00	85.12	75.12	0.00
I281	0.00	85.55	75.55	0.00
I282	0.00	85.55	75.55	0.00
I283	0.00	85.55	75.55	0.00
I284	0.00	85.55	75.55	0.00
I285	0.00	85.55	75.55	0.00
I286	0.00	86.18	76.18	0.00
I287	0.00	86.18	76.18	0.00
I288	0.00	86.18	76.18	0.00
I289	0.00	86.18	76.18	0.00
I290	0.00	86.18	76.18	0.00
I291	0.00	86.18	76.18	0.00
I292	0.00	86.18	76.18	0.00
I293	0.00	86.18	76.18	0.00
I294	0.00	86.18	76.18	0.00
I295	0.00	86.18	76.18	0.00
I296	0.00	86.18	76.18	0.00
I297	0.00	86.54	76.54	0.00
I298	0.00	86.54	76.54	0.00
I299	0.00	86.54	76.54	0.00
I300	0.00	86.54	76.54	0.00
I301	0.00	86.54	76.54	0.00
I302	0.00	86.54	76.54	0.00
I303	0.00	86.54	76.54	0.00
I304	0.00	87.65	77.65	0.00
I305	0.00	87.65	77.65	0.00
I306	0.00	87.65	77.65	0.00
I307	0.00	87.65	77.65	0.00
I308	0.00	87.65	77.65	0.00
I309	0.00	87.65	77.65	0.00
I310	0.00	87.65	77.65	0.00
I311	0.00	87.65	77.65	0.00
I312	0.00	87.65	77.65	0.00
I313	0.00	87.65	77.65	0.00
I314	0.00	87.65	77.65	0.00
I315	0.00	87.65	77.65	0.00
I316	0.00	87.65	77.65	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I317	0.00	87.65	77.65	0.00
I318	0.00	87.65	77.65	0.00
I319	0.00	87.65	77.65	0.00
I320	0.00	87.65	77.65	0.00
I321	0.00	87.65	77.65	0.00
I322	0.00	87.65	77.65	0.00
I323	0.00	87.65	77.65	0.00
I324	0.00	87.65	77.65	0.00
I325	0.00	87.65	77.65	0.00
I326	0.00	87.65	77.65	0.00
S1	-450.00	10.00	0.00	0.00 Reservoir

Link Results:

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1	355.50	1.81	6.09	Open
R2	94.50	0.48	1.00	Open
R3	285.19	1.45	3.44	Open
R4	247.69	1.97	8.19	Open
R5	196.12	1.56	5.20	Open
R6	158.62	2.06	9.28	Open
R7	139.87	1.82	7.34	Open
R8	55.50	0.72	1.33	Open
R9	-94.50	1.23	3.55	Open
R10	-94.50	1.23	3.55	Open
R11	-94.50	1.23	3.55	Open
R12	-94.50	1.23	3.55	Open
R13	-94.50	1.23	3.55	Open
R14	-94.50	1.23	3.55	Open
R15	-94.50	1.23	3.55	Open
R16	-94.50	1.23	3.55	Open
R17	-70.92	0.92	2.09	Open
R18	-94.50	1.23	3.55	Open
R19	-94.50	1.23	3.55	Open
R20	-94.50	1.23	3.55	Open
R21	-94.50	1.23	3.55	Open
R22	-94.50	0.75	1.27	Open
R23	-94.50	0.75	1.27	Open
R24	-94.50	0.75	1.27	Open
R25	-94.50	0.75	1.27	Open
R26	-94.50	0.75	1.27	Open
R27	-94.50	0.75	1.27	Open
R28	-94.50	0.48	0.41	Open
R29	-94.50	0.48	0.41	Open
R30	-23.58	0.39	1.18	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R31	-23.58	0.39	0.50	Open
R32	-23.58	0.39	0.50	Open
R33	-23.58	0.39	0.50	Open
R34	-23.58	0.39	0.50	Open
R35	-23.58	0.39	0.50	Open
R36	-23.58	0.39	0.50	Open
R39	-23.58	0.39	0.50	Open
R40	-23.58	0.39	0.65	Open
R41	150.00	1.95	11.78	Open
R42	145.31	1.89	7.88	Open
R43	126.56	2.09	10.96	Open
R44	121.88	2.01	10.21	Open
R45	117.19	1.94	9.49	Open
R46	112.50	1.86	8.80	Open
R47	0.00	0.00	0.00	Open
R48	0.00	0.00	0.00	Open
R49	70.31	2.30	39.32	Open
R50	65.63	2.14	17.24	Open
R51	42.19	1.38	7.59	Open
R52	450.00	2.29	8.39	Open
R53	51.56	1.68	14.27	Open
R54	46.88	1.53	9.22	Open
R55	112.50	1.86	10.68	Open
R56	107.81	1.78	8.13	Open
R57	79.69	1.32	4.64	Open
R58	75.00	1.24	4.15	Open
R59	70.31	1.16	3.68	Open
R60	0.00	0.00	0.00	Open
R61	0.00	0.00	0.00	Open
R62	0.00	0.00	0.00	Open
R63	0.00	0.00	0.00	Open
R64	0.00	0.00	0.00	Open
R65	0.00	0.00	0.00	Open
R66	0.00	0.00	0.00	Open
R67	0.00	0.00	0.00	Open
R68	0.00	0.00	0.00	Open
R69	0.00	0.00	0.00	Open
R71	23.44	1.50	23.86	Open
R72	18.75	1.20	8.83	Open
R73	14.06	0.90	5.21	Open
R74	9.38	0.60	2.49	Open
R75	42.19	2.70	71.10	Open
R76	14.06	0.90	5.64	Open
R77	9.38	0.60	2.49	Open
R78	4.69	0.30	0.72	Open
R79	23.44	1.50	13.31	Open
R80	18.75	1.20	8.83	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R81	14.06	0.90	5.21	Open	Open
R82	4.69	0.30	0.72	Open	Open
R83	37.50	2.40	50.62	Open	Open
R84	18.75	1.20	8.83	Open	Open
R85	14.06	0.90	5.21	Open	Open
R86	9.38	0.60	2.49	Open	Open
R87	4.69	0.30	0.72	Open	Open
R88	9.38	0.60	3.02	Open	Open
R89	4.69	0.30	0.72	Open	Open
R90	32.81	2.10	27.44	Open	Open
R91	28.13	1.80	18.65	Open	Open
R92	23.44	1.50	13.31	Open	Open
R93	18.75	1.20	8.83	Open	Open
R94	9.38	0.60	2.49	Open	Open
R95	4.69	0.30	0.72	Open	Open
R96	14.06	0.90	5.80	Open	Open
R97	9.38	0.60	2.49	Open	Open
R98	4.69	0.30	0.72	Open	Open
R99	37.50	2.40	49.95	Open	Open
R100	28.13	1.80	18.65	Open	Open
R101	14.06	0.90	5.21	Open	Open
R102	18.75	1.20	14.87	Open	Open
R103	9.38	0.60	2.49	Open	Open
R104	4.69	0.30	0.72	Open	Open
R105	4.69	0.30	0.83	Open	Open
R106	84.38	2.20	31.21	Open	Open
R107	37.50	1.23	6.11	Open	Open
R108	32.81	2.10	24.84	Open	Open
R109	9.38	0.60	2.49	Open	Open
R110	4.69	0.30	0.72	Open	Open
R111	14.06	0.90	5.37	Open	Open
R112	4.69	0.30	0.72	Open	Open
R113	42.19	1.38	11.35	Open	Open
R114	28.13	1.80	18.65	Open	Open
R115	23.44	1.50	13.31	Open	Open
R116	18.75	1.20	8.82	Open	Open
R117	9.38	0.60	2.49	Open	Open
R118	4.69	0.30	0.72	Open	Open
R119	14.06	0.90	7.11	Open	Open
R120	9.38	0.60	2.49	Open	Open
R121	4.69	0.30	0.72	Open	Open
R122	18.75	1.20	9.46	Open	Open
R123	9.38	0.60	2.49	Open	Open
R124	4.69	0.30	0.72	Open	Open
R125	-4.69	0.30	0.72	Open	Open
R126	-9.38	0.60	2.49	Open	Open
R127	-14.06	0.90	5.21	Open	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R128	-18.75	1.20	8.83	Open	Open
R129	23.44	1.50	19.47	Open	Open
R130	14.06	0.90	7.88	Open	Open
R131	9.38	0.60	2.49	Open	Open
R132	56.25	0.93	6.28	Open	Open
R133	51.56	0.85	2.08	Open	Open
R134	14.06	0.90	7.32	Open	Open
R135	4.69	0.30	0.72	Open	Open
R136	37.50	0.98	3.51	Open	Open
R137	32.81	0.85	2.74	Open	Open
R138	28.13	0.73	2.07	Open	Open
R139	23.44	0.61	1.49	Open	Open
R140	18.75	0.49	0.99	Open	Open
R141	14.06	0.37	0.59	Open	Open
R142	9.38	0.60	2.49	Open	Open
R143	4.69	0.30	0.72	Open	Open
R144	0.00	0.00	0.00	Open	Open
R145	0.00	0.00	0.00	Open	Open
R146	0.00	0.00	0.00	Open	Open
R147	0.00	0.00	0.00	Open	Open
R148	0.00	0.00	0.00	Open	Open
R149	0.00	0.00	0.00	Open	Open
R150	0.00	0.00	0.00	Open	Open
R151	0.00	0.00	0.00	Open	Open
R152	0.00	0.00	0.00	Open	Open
R153	0.00	0.00	0.00	Open	Open
R154	0.00	0.00	0.00	Open	Open
R155	0.00	0.00	0.00	Open	Open
R156	0.00	0.00	0.00	Open	Open
R157	0.00	0.00	0.00	Open	Open
R158	0.00	0.00	0.00	Open	Open
R159	0.00	0.00	0.00	Open	Open
R160	0.00	0.00	0.00	Open	Open
R161	0.00	0.00	0.00	Open	Open
R162	0.00	0.00	0.00	Open	Open
R163	0.00	0.00	0.00	Open	Open
R164	0.00	0.00	0.00	Open	Open
R165	0.00	0.00	0.00	Open	Open
R166	0.00	0.00	0.00	Open	Open
R167	0.00	0.00	0.00	Open	Open
R168	0.00	0.00	0.00	Open	Open
R169	0.00	0.00	0.00	Open	Open
R170	0.00	0.00	0.00	Open	Open
R171	0.00	0.00	0.00	Open	Open
R172	0.00	0.00	0.00	Open	Open
R173	0.00	0.00	0.00	Open	Open
R174	0.00	0.00	0.00	Open	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R175	0.00	0.00	0.00	0.00	Open
R176	0.00	0.00	0.00	0.00	Open
R177	0.00	0.00	0.00	0.00	Open
R178	0.00	0.00	0.00	0.00	Open
R179	0.00	0.00	0.00	0.00	Open
R180	0.00	0.00	0.00	0.00	Open
R181	0.00	0.00	0.00	0.00	Open
R182	0.00	0.00	0.00	0.00	Open
R183	0.00	0.00	0.00	0.00	Open
R184	0.00	0.00	0.00	0.00	Open
R185	0.00	0.00	0.00	0.00	Open
R186	0.00	0.00	0.00	0.00	Open
R187	0.00	0.00	0.00	0.00	Open
R188	0.00	0.00	0.00	0.00	Open
R189	0.00	0.00	0.00	0.00	Open
R190	0.00	0.00	0.00	0.00	Open
R191	0.00	0.00	0.00	0.00	Open
R192	0.00	0.00	0.00	0.00	Open
R193	0.00	0.00	0.00	0.00	Open
R194	0.00	0.00	0.00	0.00	Open
R195	0.00	0.00	0.00	0.00	Open
R196	0.00	0.00	0.00	0.00	Open
R197	0.00	0.00	0.00	0.00	Open
R198	0.00	0.00	0.00	0.00	Open
R199	0.00	0.00	0.00	0.00	Open
R200	0.00	0.00	0.00	0.00	Open
R201	0.00	0.00	0.00	0.00	Open
R202	0.00	0.00	0.00	0.00	Open
R203	-23.58	0.39	0.50	0.50	Open
R204	-23.58	0.39	0.50	0.50	Open
R205	0.00	0.00	0.00	0.00	Open
R206	0.00	0.00	0.00	0.00	Open
R207	0.00	0.00	0.00	0.00	Open
R208	0.00	0.00	0.00	0.00	Open
R209	0.00	0.00	0.00	0.00	Open
R210	0.00	0.00	0.00	0.00	Open
R211	0.00	0.00	0.00	0.00	Open
R212	0.00	0.00	0.00	0.00	Open
R213	0.00	0.00	0.00	0.00	Open
R214	0.00	0.00	0.00	0.00	Open
R215	0.00	0.00	0.00	0.00	Open
R216	0.00	0.00	0.00	0.00	Open
R217	0.00	0.00	0.00	0.00	Open
R218	0.00	0.00	0.00	0.00	Open
R219	0.00	0.00	0.00	0.00	Open
R220	0.00	0.00	0.00	0.00	Open
R221	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R222	0.00	0.00	0.00	0.00	Open
R223	0.00	0.00	0.00	0.00	Open
R224	0.00	0.00	0.00	0.00	Open
R225	0.00	0.00	0.00	0.00	Open
R226	0.00	0.00	0.00	0.00	Open
R227	0.00	0.00	0.00	0.00	Open
R228	0.00	0.00	0.00	0.00	Open
R229	0.00	0.00	0.00	0.00	Open
R230	0.00	0.00	0.00	0.00	Open
R231	0.00	0.00	0.00	0.00	Open
R232	0.00	0.00	0.00	0.00	Open
R233	0.00	0.00	0.00	0.00	Open
R234	0.00	0.00	0.00	0.00	Open
R235	0.00	0.00	0.00	0.00	Open
R236	0.00	0.00	0.00	0.00	Open
R237	0.00	0.00	0.00	0.00	Open
R238	0.00	0.00	0.00	0.00	Open
R239	0.00	0.00	0.00	0.00	Open
R240	0.00	0.00	0.00	0.00	Open
R241	0.00	0.00	0.00	0.00	Open
R242	0.00	0.00	0.00	0.00	Open
R243	0.00	0.00	0.00	0.00	Open
R244	0.00	0.00	0.00	0.00	Open
R245	0.00	0.00	0.00	0.00	Open
R246	0.00	0.00	0.00	0.00	Open
R247	0.00	0.00	0.00	0.00	Open
R248	0.00	0.00	0.00	0.00	Open
R249	0.00	0.00	0.00	0.00	Open
R250	0.00	0.00	0.00	0.00	Open
R251	0.00	0.00	0.00	0.00	Open
R252	0.00	0.00	0.00	0.00	Open
R253	0.00	0.00	0.00	0.00	Open
R254	0.00	0.00	0.00	0.00	Open
R255	0.00	0.00	0.00	0.00	Open
R256	0.00	0.00	0.00	0.00	Open
R257	0.00	0.00	0.00	0.00	Open
R258	0.00	0.00	0.00	0.00	Open
R259	0.00	0.00	0.00	0.00	Open
R260	0.00	0.00	0.00	0.00	Open
R261	0.00	0.00	0.00	0.00	Open
R262	0.00	0.00	0.00	0.00	Open
R263	0.00	0.00	0.00	0.00	Open
R264	0.00	0.00	0.00	0.00	Open
R265	0.00	0.00	0.00	0.00	Open
R266	0.00	0.00	0.00	0.00	Open
R267	0.00	0.00	0.00	0.00	Open
R268	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R269	0.00	0.00	0.00	0.00	Open
R270	0.00	0.00	0.00	0.00	Open
R271	0.00	0.00	0.00	0.00	Open
R272	0.00	0.00	0.00	0.00	Open
R273	0.00	0.00	0.00	0.00	Open
R274	0.00	0.00	0.00	0.00	Open
R275	0.00	0.00	0.00	0.00	Open
R276	0.00	0.00	0.00	0.00	Open
R277	0.00	0.00	0.00	0.00	Open
R278	0.00	0.00	0.00	0.00	Open
R279	0.00	0.00	0.00	0.00	Open
R280	0.00	0.00	0.00	0.00	Open
R281	0.00	0.00	0.00	0.00	Open
R282	0.00	0.00	0.00	0.00	Open
R283	0.00	0.00	0.00	0.00	Open
R284	0.00	0.00	0.00	0.00	Open
R285	0.00	0.00	0.00	0.00	Open
R286	0.00	0.00	0.00	0.00	Open
R287	0.00	0.00	0.00	0.00	Open
R288	0.00	0.00	0.00	0.00	Open
R289	0.00	0.00	0.00	0.00	Open
R290	0.00	0.00	0.00	0.00	Open
R291	0.00	0.00	0.00	0.00	Open
R292	0.00	0.00	0.00	0.00	Open
R293	0.00	0.00	0.00	0.00	Open
R294	0.00	0.00	0.00	0.00	Open
R295	0.00	0.00	0.00	0.00	Open
R296	0.00	0.00	0.00	0.00	Open
R297	0.00	0.00	0.00	0.00	Open
R298	0.00	0.00	0.00	0.00	Open
R299	0.00	0.00	0.00	0.00	Open
R300	0.00	0.00	0.00	0.00	Open
R301	0.00	0.00	0.00	0.00	Open
R302	0.00	0.00	0.00	0.00	Open
R303	0.00	0.00	0.00	0.00	Open
R304	0.00	0.00	0.00	0.00	Open
R305	0.00	0.00	0.00	0.00	Open
R306	0.00	0.00	0.00	0.00	Open
R307	0.00	0.00	0.00	0.00	Open
R308	0.00	0.00	0.00	0.00	Open
R309	0.00	0.00	0.00	0.00	Open
R310	0.00	0.00	0.00	0.00	Open
R311	0.00	0.00	0.00	0.00	Open
R312	0.00	0.00	0.00	0.00	Open
R313	0.00	0.00	0.00	0.00	Open
R314	0.00	0.00	0.00	0.00	Open
R315	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R316	0.00	0.00	0.00	0.00	Open
R317	0.00	0.00	0.00	0.00	Open
R318	0.00	0.00	0.00	0.00	Open
R319	0.00	0.00	0.00	0.00	Open
R320	0.00	0.00	0.00	0.00	Open
R321	0.00	0.00	0.00	0.00	Open
R322	0.00	0.00	0.00	0.00	Open
R323	0.00	0.00	0.00	0.00	Open
R326	4.69	0.64	4.40	4.40	Open
R327	4.69	0.64	4.40	4.40	Open
R328	4.69	0.64	4.40	4.40	Open
R329	4.69	0.64	4.40	4.40	Open
R330	4.69	0.64	4.40	4.40	Open
R331	4.69	0.64	4.40	4.40	Open
R332	4.69	0.64	4.40	4.40	Open
R333	4.69	0.64	4.40	4.40	Open
R334	4.69	0.64	4.40	4.40	Open
R335	4.69	0.64	4.40	4.40	Open
R336	4.69	0.64	4.40	4.40	Open
R337	4.69	0.64	4.40	4.40	Open
R338	4.69	0.64	4.40	4.40	Open
R339	4.69	0.64	4.40	4.40	Open
R340	4.69	0.64	4.40	4.40	Open
R341	4.69	0.64	4.40	4.40	Open
R342	4.69	0.64	4.40	4.40	Open
R343	4.69	0.64	4.40	4.40	Open
R344	4.69	0.64	4.40	4.40	Open
R345	4.69	0.64	4.40	4.40	Open
R346	4.69	0.64	4.40	4.40	Open
R347	4.69	0.64	4.40	4.40	Open
R348	4.69	0.64	4.40	4.40	Open
R349	4.69	0.64	4.40	4.40	Open
R350	4.69	0.64	4.40	4.40	Open
R351	4.69	0.64	4.40	4.40	Open
R352	4.69	0.64	4.40	4.40	Open
R353	4.69	0.64	4.40	4.40	Open
R354	4.69	0.64	4.40	4.40	Open
R355	4.69	0.64	4.40	4.40	Open
R356	4.69	0.64	4.40	4.40	Open
R357	4.69	0.64	4.40	4.40	Open
R358	4.69	0.64	4.40	4.40	Open
R359	4.69	0.64	4.40	4.40	Open
R360	4.69	0.64	4.40	4.40	Open
R361	4.69	0.64	4.40	4.40	Open
R362	4.69	0.64	4.40	4.40	Open
R363	4.69	0.64	4.40	4.40	Open
R364	4.69	0.64	4.40	4.40	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R365	4.69	0.64	4.40	4.40	Open
R366	4.69	0.64	4.40	4.40	Open
R367	4.69	0.64	4.40	4.40	Open
R368	4.69	0.64	4.40	4.40	Open
R369	4.69	0.64	4.40	4.40	Open
R370	4.69	0.64	4.40	4.40	Open
R371	4.69	0.64	4.40	4.40	Open
R372	4.69	0.64	4.40	4.40	Open
R373	4.69	0.64	4.40	4.40	Open
R374	4.69	0.64	4.40	4.40	Open
R375	4.69	0.64	4.40	4.40	Open
R376	4.69	0.64	4.40	4.40	Open
R377	4.69	0.64	4.40	4.40	Open
R378	4.69	0.64	4.40	4.40	Open
R379	4.69	0.64	4.40	4.40	Open
R380	4.69	0.64	4.40	4.40	Open
R381	4.69	0.64	4.40	4.40	Open
R382	4.69	0.64	4.40	4.40	Open
R383	4.69	0.64	4.40	4.40	Open
R384	4.69	0.64	4.40	4.40	Open
R385	4.69	0.64	4.40	4.40	Open
R386	4.69	0.64	4.40	4.40	Open
R387	4.69	0.64	4.40	4.40	Open
R388	4.69	0.64	4.40	4.40	Open
R389	4.69	0.64	4.40	4.40	Open
R390	4.69	0.64	4.40	4.40	Open
R391	4.69	0.64	4.40	4.40	Open
R392	4.69	0.64	4.40	4.40	Open
R393	4.69	0.64	4.40	4.40	Open
R394	4.69	0.64	4.40	4.40	Open
R395	4.69	0.64	4.40	4.40	Open
R396	4.69	0.64	4.40	4.40	Open
R397	4.69	0.64	4.40	4.40	Open
R398	4.69	0.64	4.40	4.40	Open
R399	4.69	0.64	4.40	4.40	Open
R400	4.69	0.64	4.40	4.40	Open
R401	4.69	0.64	4.40	4.40	Open
R402	4.69	0.64	4.40	4.40	Open
R403	4.69	0.64	4.40	4.40	Open
R404	4.69	0.64	4.40	4.40	Open
R405	4.69	0.64	4.40	4.40	Open
R406	4.69	0.64	4.40	4.40	Open
R407	4.69	0.64	4.40	4.40	Open
R408	4.69	0.64	4.40	4.40	Open
R409	4.69	0.64	4.40	4.40	Open
R410	4.69	0.64	4.40	4.40	Open
R411	4.69	0.64	4.40	4.40	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R412	4.69	0.64	4.40	4.40	Open
R413	4.69	0.64	4.40	4.40	Open
R414	4.69	0.64	4.40	4.40	Open
R415	4.69	0.64	4.40	4.40	Open
R416	4.69	0.64	4.40	4.40	Open
R417	4.69	0.64	4.40	4.40	Open
R418	4.69	0.64	4.40	4.40	Open
R419	4.69	0.64	4.40	4.40	Open
R420	4.69	0.64	4.40	4.40	Open
R421	4.69	0.64	4.40	4.40	Open
R422	0.00	0.00	0.00	0.00	Open
R423	0.00	0.00	0.00	0.00	Open
R424	0.00	0.00	0.00	0.00	Open
R425	0.00	0.00	0.00	0.00	Open
R426	0.00	0.00	0.00	0.00	Open
R427	0.00	0.00	0.00	0.00	Open
R428	0.00	0.00	0.00	0.00	Open
R429	0.00	0.00	0.00	0.00	Open
R430	0.00	0.00	0.00	0.00	Open
R431	0.00	0.00	0.00	0.00	Open
R432	0.00	0.00	0.00	0.00	Open
R433	0.00	0.00	0.00	0.00	Open
R434	0.00	0.00	0.00	0.00	Open
R435	0.00	0.00	0.00	0.00	Open
R436	0.00	0.00	0.00	0.00	Open
R437	0.00	0.00	0.00	0.00	Open
R438	0.00	0.00	0.00	0.00	Open
R439	0.00	0.00	0.00	0.00	Open
R440	0.00	0.00	0.00	0.00	Open
R441	0.00	0.00	0.00	0.00	Open
R442	0.00	0.00	0.00	0.00	Open
R443	0.00	0.00	0.00	0.00	Open
R444	0.00	0.00	0.00	0.00	Open
R445	0.00	0.00	0.00	0.00	Open
R446	0.00	0.00	0.00	0.00	Open
R447	0.00	0.00	0.00	0.00	Open
R448	0.00	0.00	0.00	0.00	Open
R449	0.00	0.00	0.00	0.00	Open
R450	0.00	0.00	0.00	0.00	Open
R451	0.00	0.00	0.00	0.00	Open
R452	0.00	0.00	0.00	0.00	Open
R453	0.00	0.00	0.00	0.00	Open
R454	0.00	0.00	0.00	0.00	Open
R455	0.00	0.00	0.00	0.00	Open
R456	0.00	0.00	0.00	0.00	Open
R457	0.00	0.00	0.00	0.00	Open
R458	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R459	0.00	0.00	0.00	0.00	Open
R460	0.00	0.00	0.00	0.00	Open
R461	0.00	0.00	0.00	0.00	Open
R462	0.00	0.00	0.00	0.00	Open
R463	0.00	0.00	0.00	0.00	Open
R464	0.00	0.00	0.00	0.00	Open
R465	0.00	0.00	0.00	0.00	Open
R466	0.00	0.00	0.00	0.00	Open
R467	0.00	0.00	0.00	0.00	Open
R468	0.00	0.00	0.00	0.00	Open
R469	0.00	0.00	0.00	0.00	Open
R470	0.00	0.00	0.00	0.00	Open
R471	0.00	0.00	0.00	0.00	Open
R472	0.00	0.00	0.00	0.00	Open
R473	0.00	0.00	0.00	0.00	Open
R474	0.00	0.00	0.00	0.00	Open
R475	0.00	0.00	0.00	0.00	Open
R476	0.00	0.00	0.00	0.00	Open
R477	0.00	0.00	0.00	0.00	Open
R478	0.00	0.00	0.00	0.00	Open
R479	0.00	0.00	0.00	0.00	Open
R480	0.00	0.00	0.00	0.00	Open
R481	0.00	0.00	0.00	0.00	Open
R482	0.00	0.00	0.00	0.00	Open
R483	0.00	0.00	0.00	0.00	Open
R484	0.00	0.00	0.00	0.00	Open
R485	0.00	0.00	0.00	0.00	Open
R486	0.00	0.00	0.00	0.00	Open
R487	0.00	0.00	0.00	0.00	Open
R488	0.00	0.00	0.00	0.00	Open
R489	0.00	0.00	0.00	0.00	Open
R490	0.00	0.00	0.00	0.00	Open
R491	0.00	0.00	0.00	0.00	Open
R492	0.00	0.00	0.00	0.00	Open
R493	0.00	0.00	0.00	0.00	Open
R494	0.00	0.00	0.00	0.00	Open
R495	0.00	0.00	0.00	0.00	Open
R496	0.00	0.00	0.00	0.00	Open
R497	0.00	0.00	0.00	0.00	Open
R498	0.00	0.00	0.00	0.00	Open
R499	0.00	0.00	0.00	0.00	Open
R500	0.00	0.00	0.00	0.00	Open
R501	0.00	0.00	0.00	0.00	Open
R502	0.00	0.00	0.00	0.00	Open
R503	0.00	0.00	0.00	0.00	Open
R504	0.00	0.00	0.00	0.00	Open
R505	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R506	0.00	0.00	0.00	0.00	Open
R507	0.00	0.00	0.00	0.00	Open
R508	0.00	0.00	0.00	0.00	Open
R509	0.00	0.00	0.00	0.00	Open
R510	0.00	0.00	0.00	0.00	Open
R511	0.00	0.00	0.00	0.00	Open
R512	0.00	0.00	0.00	0.00	Open
R513	0.00	0.00	0.00	0.00	Open
R514	0.00	0.00	0.00	0.00	Open
R515	0.00	0.00	0.00	0.00	Open
R516	0.00	0.00	0.00	0.00	Open
R517	0.00	0.00	0.00	0.00	Open
R518	0.00	0.00	0.00	0.00	Open
R519	0.00	0.00	0.00	0.00	Open
R520	0.00	0.00	0.00	0.00	Open
R521	0.00	0.00	0.00	0.00	Open
R522	0.00	0.00	0.00	0.00	Open
R523	0.00	0.00	0.00	0.00	Open
R524	0.00	0.00	0.00	0.00	Open
R525	0.00	0.00	0.00	0.00	Open
R526	0.00	0.00	0.00	0.00	Open
R527	0.00	0.00	0.00	0.00	Open
R528	0.00	0.00	0.00	0.00	Open
R529	0.00	0.00	0.00	0.00	Open
R530	0.00	0.00	0.00	0.00	Open
R531	0.00	0.00	0.00	0.00	Open
R532	0.00	0.00	0.00	0.00	Open
R533	0.00	0.00	0.00	0.00	Open
R534	0.00	0.00	0.00	0.00	Open
R535	0.00	0.00	0.00	0.00	Open
R536	0.00	0.00	0.00	0.00	Open
R537	0.00	0.00	0.00	0.00	Open
R538	0.00	0.00	0.00	0.00	Open
R539	0.00	0.00	0.00	0.00	Open
R540	0.00	0.00	0.00	0.00	Open
R541	0.00	0.00	0.00	0.00	Open
R542	0.00	0.00	0.00	0.00	Open
R543	0.00	0.00	0.00	0.00	Open
R544	0.00	0.00	0.00	0.00	Open
R545	0.00	0.00	0.00	0.00	Open
R546	0.00	0.00	0.00	0.00	Open
R547	0.00	0.00	0.00	0.00	Open
R548	0.00	0.00	0.00	0.00	Open
R549	0.00	0.00	0.00	0.00	Open
R550	0.00	0.00	0.00	0.00	Open
R551	0.00	0.00	0.00	0.00	Open
R552	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R553	0.00	0.00	0.00	0.00	Open
R554	0.00	0.00	0.00	0.00	Open
R555	0.00	0.00	0.00	0.00	Open
R556	0.00	0.00	0.00	0.00	Open
R557	0.00	0.00	0.00	0.00	Open
R558	0.00	0.00	0.00	0.00	Open
R559	0.00	0.00	0.00	0.00	Open
R560	0.00	0.00	0.00	0.00	Open
R561	0.00	0.00	0.00	0.00	Open
R562	0.00	0.00	0.00	0.00	Open
R563	0.00	0.00	0.00	0.00	Open
R566	0.00	0.00	0.00	0.00	Open
R567	0.00	0.00	0.00	0.00	Open
R568	0.00	0.00	0.00	0.00	Open
R569	0.00	0.00	0.00	0.00	Open
R570	0.00	0.00	0.00	0.00	Open
R571	0.00	0.00	0.00	0.00	Open
R572	0.00	0.00	0.00	0.00	Open
R573	0.00	0.00	0.00	0.00	Open
R574	0.00	0.00	0.00	0.00	Open
R575	0.00	0.00	0.00	0.00	Open
R576	0.00	0.00	0.00	0.00	Open
R577	0.00	0.00	0.00	0.00	Open
R578	0.00	0.00	0.00	0.00	Open
R579	0.00	0.00	0.00	0.00	Open
R580	0.00	0.00	0.00	0.00	Open
R581	0.00	0.00	0.00	0.00	Open
R582	0.00	0.00	0.00	0.00	Open
R583	0.00	0.00	0.00	0.00	Open
R584	0.00	0.00	0.00	0.00	Open
R585	0.00	0.00	0.00	0.00	Open
R586	0.00	0.00	0.00	0.00	Open
R587	0.00	0.00	0.00	0.00	Open
R588	0.00	0.00	0.00	0.00	Open
R589	0.00	0.00	0.00	0.00	Open
R590	0.00	0.00	0.00	0.00	Open
R591	0.00	0.00	0.00	0.00	Open
R592	0.00	0.00	0.00	0.00	Open
R593	0.00	0.00	0.00	0.00	Open
R594	0.00	0.00	0.00	0.00	Open
R595	0.00	0.00	0.00	0.00	Open
R596	0.00	0.00	0.00	0.00	Open
R597	0.00	0.00	0.00	0.00	Open
R598	0.00	0.00	0.00	0.00	Open
R599	0.00	0.00	0.00	0.00	Open
R600	0.00	0.00	0.00	0.00	Open
R601	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R602	0.00	0.00	0.00	0.00	Open
R603	0.00	0.00	0.00	0.00	Open
R604	0.00	0.00	0.00	0.00	Open
R605	0.00	0.00	0.00	0.00	Open
R606	0.00	0.00	0.00	0.00	Open
R607	0.00	0.00	0.00	0.00	Open
R608	0.00	0.00	0.00	0.00	Open
R609	0.00	0.00	0.00	0.00	Open
R610	0.00	0.00	0.00	0.00	Open
R611	0.00	0.00	0.00	0.00	Open
R612	0.00	0.00	0.00	0.00	Open
R613	0.00	0.00	0.00	0.00	Open
R614	0.00	0.00	0.00	0.00	Open
R615	0.00	0.00	0.00	0.00	Open
R616	0.00	0.00	0.00	0.00	Open
R617	0.00	0.00	0.00	0.00	Open
R618	0.00	0.00	0.00	0.00	Open
R619	0.00	0.00	0.00	0.00	Open
R620	0.00	0.00	0.00	0.00	Open
R621	0.00	0.00	0.00	0.00	Open
R622	0.00	0.00	0.00	0.00	Open
R623	0.00	0.00	0.00	0.00	Open
R624	0.00	0.00	0.00	0.00	Open
R625	0.00	0.00	0.00	0.00	Open
R626	0.00	0.00	0.00	0.00	Open
R627	0.00	0.00	0.00	0.00	Open
R628	0.00	0.00	0.00	0.00	Open
R629	0.00	0.00	0.00	0.00	Open
R630	0.00	0.00	0.00	0.00	Open
R631	0.00	0.00	0.00	0.00	Open
R632	0.00	0.00	0.00	0.00	Open
R633	0.00	0.00	0.00	0.00	Open
R634	0.00	0.00	0.00	0.00	Open
R635	0.00	0.00	0.00	0.00	Open
R636	0.00	0.00	0.00	0.00	Open
R637	0.00	0.00	0.00	0.00	Open
R638	0.00	0.00	0.00	0.00	Open
R639	0.00	0.00	0.00	0.00	Open
R640	0.00	0.00	0.00	0.00	Open
R641	0.00	0.00	0.00	0.00	Open
R642	0.00	0.00	0.00	0.00	Open
R643	0.00	0.00	0.00	0.00	Open
R644	0.00	0.00	0.00	0.00	Open
R645	0.00	0.00	0.00	0.00	Open
R646	0.00	0.00	0.00	0.00	Open
R647	0.00	0.00	0.00	0.00	Open
R648	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R649	0.00	0.00		0.00	Open
R650	0.00	0.00		0.00	Open
R651	0.00	0.00		0.00	Open
R652	0.00	0.00		0.00	Open
R653	0.00	0.00		0.00	Open
R37	23.58	0.39		0.50	Open
P1	0.00	0.00		0.00	Closed Pump
P2	150.00	0.00		-80.00	Open Pump
P3	150.00	0.00		-80.00	Open Pump
P4	150.00	0.00		-80.00	Open Pump

1.5 IPOTESI DI FUNZIONAMENTO C

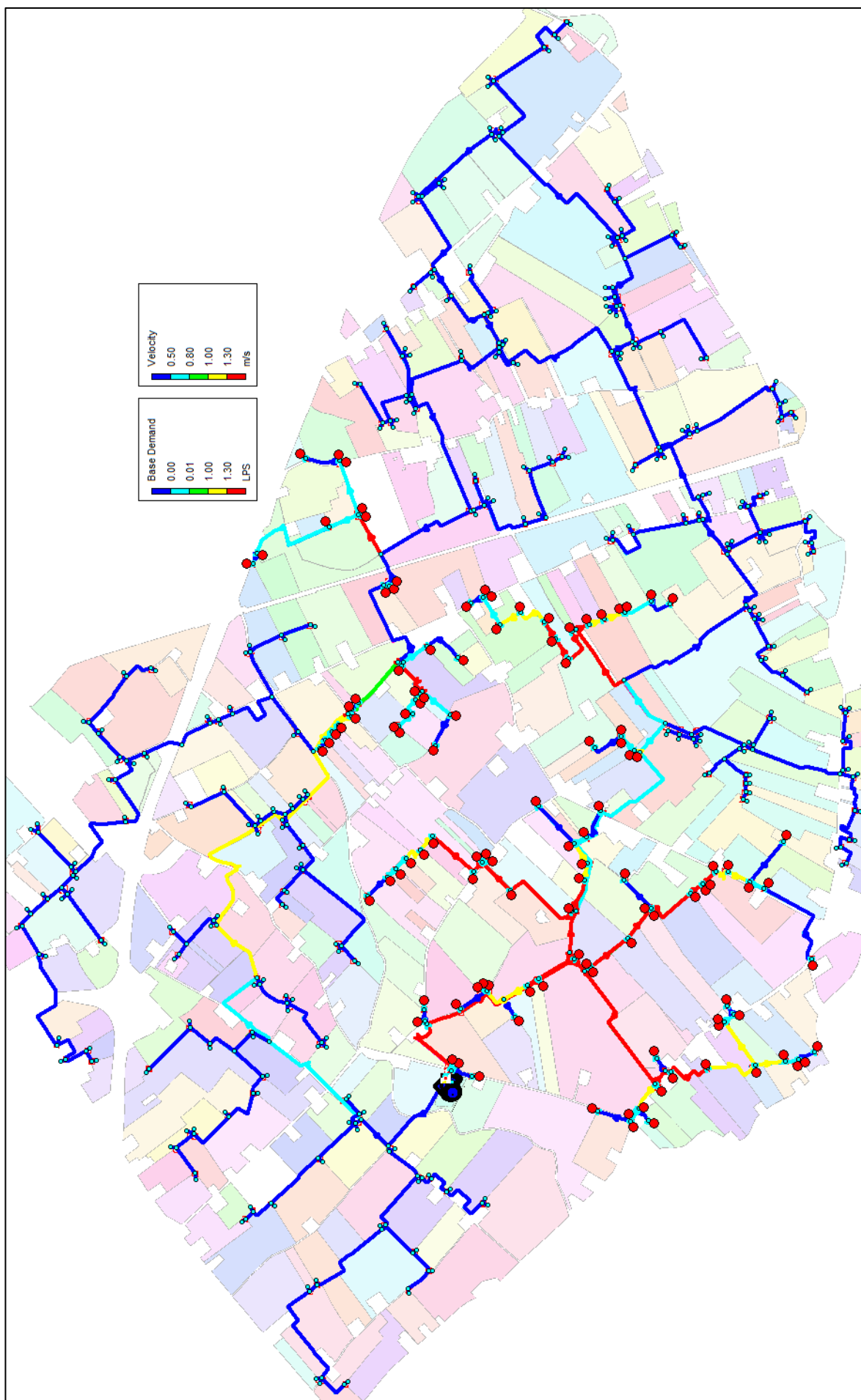


Figura 8 – Risultati della simulazione : base demand nei nodi e velocità nei rami

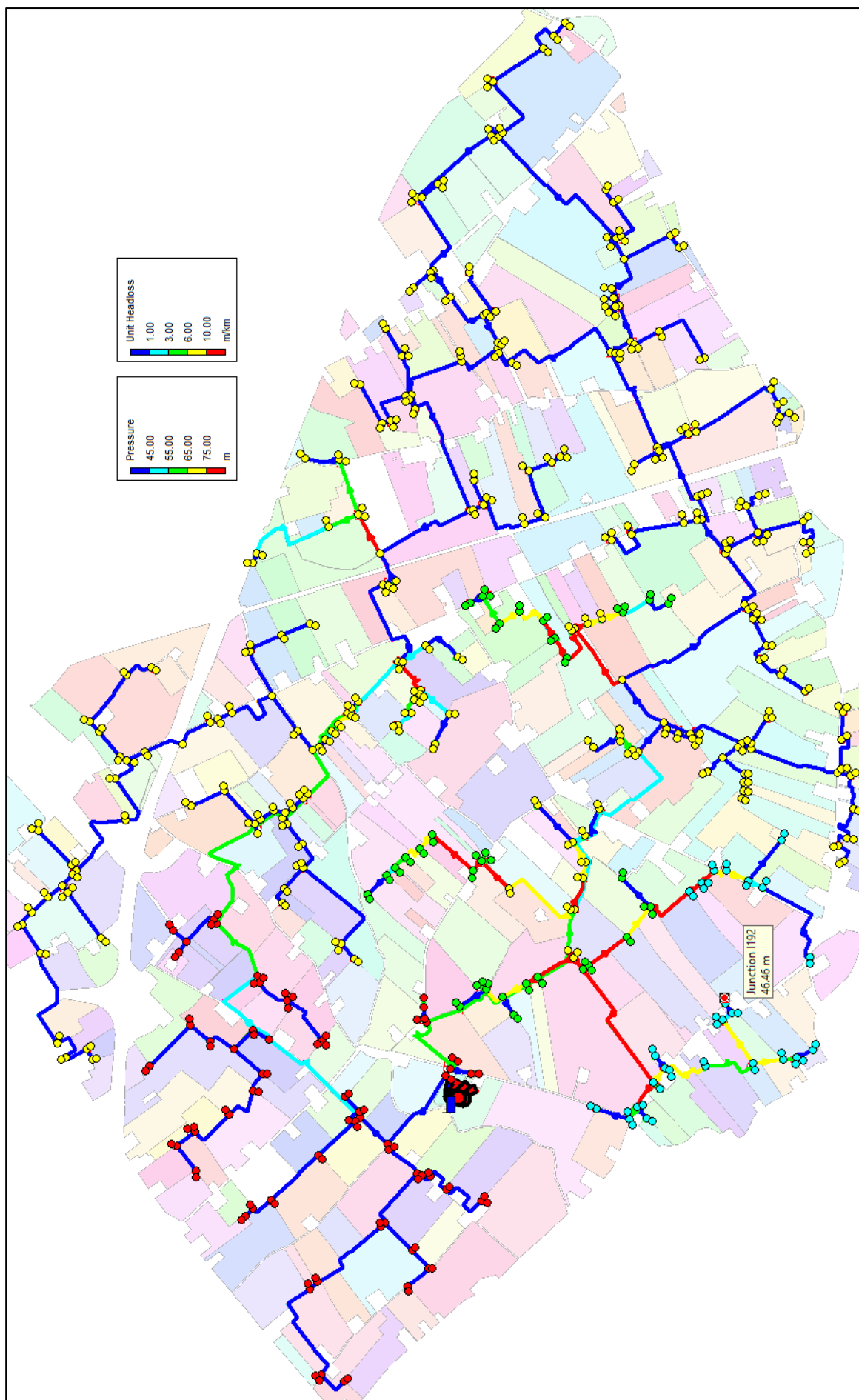


Figura 9 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE BONCELLINO IPOTESI FUNZIONAMENTO C

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
R1	Z1	Z4	376.99	500
R2	Z1	Z3	36.23	500
R3	Z4	Z30	158.87	500
R4	Z30	Z29	511.94	400
R5	Z29	Z28	434.27	400
R6	Z28	Z27	287.35	312.8
R7	Z27	Z26	776.86	312.8
R8	Z26	Z25	386.60	312.8
R9	Z25	Z24	215.34	312.8
R10	Z24	Z23	301.23	312.8
R11	Z23	Z22	483.92	312.8
R12	Z22	Z21	165.41	312.8
R13	Z21	Z20	432.52	312.8
R14	Z20	Z19	589.94	312.8
R15	Z19	Z18	288.16	312.8
R16	Z18	Z17	195.48	312.8
R17	Z17	Z16	639.32	312.8
R18	Z16	Z15	449.15	312.8
R19	Z15	Z14	322.70	312.8
R20	Z14	Z13	121.51	312.8
R21	Z13	Z12	176.09	312.8
R22	Z12	Z11	283.53	400
R23	Z11	Z10	623.06	400
R24	Z10	Z9	252.99	400
R25	Z9	Z8	161.10	400
R26	Z8	Z7	965.02	400
R27	Z7	Z6	174.34	400
R28	Z6	Z2	733.02	500
R29	Z2	Z3	295.18	500
R30	Z17	Z31	20.64	277.6
R31	Z31	Z32	131.11	277.6
R32	Z32	Z33	193.47	277.6
R33	Z33	Z34	130.26	277.6
R34	Z34	Z35	378.35	277.6
R35	Z35	Z36	399.85	277.6
R36	Z36	Z37	45.95	277.6
R39	Z39	Z40	159.80	277.6

Link ID	Start Node	End Node	Length m	Diameter mm
R40	Z40	Z16	93.15	277.6
R41	Z25	Z41	102.26	312.8
R42	Z41	Z42	180.32	312.8
R43	Z42	Z44	302.32	277.6
R44	Z44	Z45	64.21	277.6
R45	Z45	Z46	36.74	277.6
R46	Z46	Z43	156.53	277.6
R47	Z9	Z47	121.61	221.2
R48	Z47	Z48	240.32	221.2
R49	Z4	Z49	24.55	197.4
R50	Z49	Z50	155.79	197.4
R51	Z50	Z51	282.48	197.4
R52	Z52	Z1	29.23	500
R53	Z29	Z53	79.69	197.4
R54	Z53	Z54	111.39	197.4
R55	Z43	Z55	168.27	277.6
R56	Z55	Z56	81.61	277.6
R57	Z56	Z57	122.30	277.6
R58	Z57	Z58	248.24	277.6
R59	Z58	Z59	408.67	277.6
R60	Z48	Z60	42.59	197.4
R61	Z60	Z61	381.34	197.4
R62	Z10	Z62	326.51	197.4
R63	Z6	Z63	37.20	197.4
R64	Z63	Z64	65.06	197.4
R65	Z64	Z65	27.55	197.4
R66	Z65	Z66	197.52	197.4
R67	Z66	Z67	159.32	197.4
R68	Z64	Z68	593.09	197.4
R69	Z68	Z69	73.39	197.4
R71	Z50	Z70	19.58	141
R72	Z70	Z71	52.37	141
R73	Z71	Z72	134.03	141
R74	Z72	Z73	272.89	141
R75	Z51	Z74	21.33	141
R76	Z74	Z75	171.77	141
R77	Z75	Z76	100.49	141
R78	Z76	Z77	113.17	141
R79	Z74	Z78	388.18	141
R80	Z78	Z79	41.68	141
R81	Z79	Z80	492.04	141
R82	Z80	Z81	136.69	141
R83	Z30	Z82	28.20	141
R84	Z82	Z83	210.10	141
R85	Z83	Z84	273.85	141
R86	Z84	Z85	100.05	141
R87	Z85	Z86	44.57	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R88	Z82	Z88	63.06	141
R89	Z88	Z87	83.04	141
R90	Z54	Z94	156.07	141
R91	Z94	Z93	83.07	141
R92	Z93	Z92	187.75	141
R93	Z92	Z91	200.47	141
R94	Z91	Z90	94.69	141
R95	Z90	Z89	132.30	141
R96	Z54	Z95	125.84	141
R97	Z95	Z96	103.76	141
R98	Z96	Z97	240.97	141
R99	Z28	Z98	29.24	141
R100	Z98	Z99	145.56	141
R101	Z99	Z100	238.71	141
R102	Z27	Z101	21.88	141
R103	Z101	Z102	160.47	141
R104	Z102	Z103	54.42	141
R105	Z102	Z104	75.70	141
R106	Z26	Z105	28.55	221.2
R107	Z105	Z106	105.99	197.4
R108	Z106	Z107	133.09	141
R109	Z107	Z110	114.87	141
R110	Z110	Z111	81.12	141
R111	Z107	Z108	472.49	141
R112	Z108	Z109	82.44	141
R113	Z105	Z112	46.30	197.4
R114	Z112	Z113	49.61	141
R115	Z113	Z114	65.69	141
R116	Z114	Z115	30.56	141
R117	Z115	Z116	187.17	141
R118	Z116	Z117	152.14	141
R119	Z112	Z118	39.18	141
R120	Z118	Z119	57.41	141
R121	Z119	Z120	27.68	141
R122	Z42	Z121	207.55	141
R123	Z121	Z122	148.77	141
R124	Z122	Z123	127.14	141
R125	Z124	Z125	129.31	141
R126	Z125	Z126	246.99	141
R127	Z126	Z127	60.88	141
R128	Z127	Z128	133.26	141
R129	Z56	Z128	33.52	141
R130	Z59	Z129	27.91	141
R131	Z129	Z130	199.21	141
R132	Z59	Z131	20.63	277.6
R133	Z131	Z132	65.50	277.6
R134	Z132	Z133	35.33	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R135	Z133	Z134	237.49	141
R136	Z132	Z135	76.63	221.2
R137	Z135	Z136	91.24	221.2
R138	Z136	Z137	70.66	221.2
R139	Z137	Z138	138.52	221.2
R140	Z138	Z139	474.00	221.2
R141	Z139	Z140	161.81	221.2
R142	Z140	Z141	100.63	141
R143	Z141	Z142	51.23	141
R144	Z24	Z143	18.52	141
R145	Z143	Z144	31.51	141
R146	Z144	Z145	39.17	141
R147	Z143	Z146	67.46	141
R148	Z146	Z147	39.15	141
R149	Z147	Z148	44.74	141
R150	Z148	Z149	41.44	141
R151	Z150	Z23	22.15	141
R152	Z150	Z153	17.92	141
R153	Z153	Z151	116.34	141
R154	Z151	Z152	177.89	141
R155	Z150	Z154	144.12	141
R156	Z154	Z155	151.16	141
R157	Z155	Z156	143.30	141
R158	Z154	Z157	14.93	141
R159	Z157	Z158	31.41	141
R160	Z158	Z159	75.87	141
R161	Z159	Z160	73.37	141
R162	Z22	Z161	23.71	141
R163	Z21	Z162	186.92	141
R164	Z162	Z163	129.60	141
R165	Z163	Z164	430.09	141
R166	Z164	Z165	43.79	141
R167	Z162	Z166	242.40	141
R168	Z166	Z167	143.47	141
R169	Z20	Z168	13.72	197.4
R170	Z168	Z169	46.96	197.4
R171	Z169	Z170	108.21	141
R172	Z169	Z171	252.22	197.4
R173	Z171	Z172	90.88	141
R174	Z172	Z173	208.23	141
R175	Z173	Z174	103.57	141
R176	Z174	Z175	41.91	141
R177	Z19	Z176	26.61	197.4
R178	Z176	Z179	22.99	141
R179	Z179	Z180	45.71	141
R180	Z176	Z177	176.45	141
R181	Z177	Z178	131.66	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R182	Z176	Z181	185.32	141
R183	Z181	Z182	35.93	141
R184	Z182	Z183	183.87	141
R185	Z18	Z184	21.45	141
R186	Z31	Z187	17.99	141
R187	Z187	Z186	36.73	141
R188	Z186	Z185	91.70	141
R189	Z32	Z188	17.39	141
R190	Z188	Z189	214.03	141
R191	Z34	Z190	16.51	141
R192	Z190	Z191	91.95	141
R193	Z35	Z192	18.55	141
R194	Z192	Z193	88.12	141
R195	Z37	Z194	21.70	221.2
R196	Z194	Z195	304.20	221.2
R197	Z195	Z196	254.68	221.2
R198	Z196	Z197	154.03	141
R199	Z197	Z198	74.29	141
R200	Z38	Z199	20.82	141
R201	Z199	Z200	198.07	141
R202	Z200	Z201	61.79	141
R203	Z38	Z202	100.55	277.6
R204	Z202	Z39	249.63	277.6
R205	Z202	Z203	216.43	141
R206	Z203	Z204	60.37	141
R207	Z39	Z205	17.80	141
R208	Z205	Z206	36.88	141
R209	Z206	Z207	40.28	141
R210	Z40	Z208	17.66	141
R211	Z208	Z209	115.69	141
R212	Z209	Z210	291.13	141
R213	Z16	Z211	21.66	141
R214	Z15	Z212	16.25	197.4
R215	Z212	Z219	117.93	141
R216	Z212	Z213	141.13	197.4
R217	Z213	Z214	33.48	197.4
R218	Z214	Z215	375.87	197.4
R219	Z215	Z216	70.07	141
R220	Z216	Z217	52.26	141
R221	Z217	Z218	42.37	141
R222	Z14	Z220	20.17	141
R223	Z13	Z221	18.14	141
R224	Z221	Z222	56.74	141
R225	Z222	Z223	222.95	141
R226	Z223	Z224	212.85	141
R227	Z12	Z225	23.45	197.4
R228	Z225	Z226	144.31	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R229	Z226	Z229	194.01	141
R230	Z229	Z230	146.49	141
R231	Z230	Z231	36.13	141
R232	Z226	Z227	119.70	141
R233	Z227	Z228	88.55	141
R234	Z11	Z232	25.97	141
R235	Z232	Z233	42.28	141
R236	Z233	Z234	123.38	141
R237	Z234	Z235	89.55	141
R238	Z235	Z236	117.34	141
R239	Z236	Z237	121.53	141
R240	Z62	Z238	15.70	141
R241	Z238	Z239	163.82	141
R242	Z239	Z240	97.16	141
R243	Z240	Z241	85.25	141
R244	Z241	Z242	144.60	141
R245	Z242	Z243	99.06	141
R246	Z243	Z244	134.07	141
R247	Z244	Z245	58.07	141
R248	Z62	Z246	57.55	141
R249	Z246	Z247	65.50	141
R250	Z247	Z248	90.88	141
R251	Z248	Z249	123.03	141
R252	Z249	Z250	106.83	141
R253	Z47	Z251	21.24	141
R254	Z251	Z252	64.30	141
R255	Z252	Z253	48.96	141
R256	Z48	Z254	22.76	141
R257	Z254	Z255	76.57	141
R258	Z255	Z256	96.29	141
R259	Z255	Z257	109.65	141
R260	Z257	Z260	35.33	141
R261	Z258	Z259	36.27	141
R262	Z259	Z260	33.20	141
R263	Z60	Z261	21.13	141
R264	Z261	Z262	126.38	141
R265	Z61	Z263	21.78	141
R266	Z263	Z264	176.17	141
R267	Z264	Z265	113.99	141
R268	Z61	Z266	56.13	141
R269	Z266	Z267	164.61	141
R270	Z267	Z268	194.42	141
R271	Z268	Z269	80.35	141
R272	Z269	Z270	93.18	141
R273	Z8	Z271	24.62	141
R274	Z271	Z272	80.46	141
R275	Z272	Z273	139.79	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R276	Z7	Z274	17.00	141
R277	Z274	Z275	142.61	141
R278	Z275	Z276	70.95	141
R279	Z276	Z277	100.34	141
R280	Z277	Z280	212.67	141
R281	Z277	Z278	57.63	141
R282	Z278	Z279	145.20	141
R283	Z274	Z281	345.62	197.4
R284	Z281	Z282	164.02	141
R285	Z282	Z283	54.06	141
R286	Z283	Z284	225.21	141
R287	Z284	Z285	78.40	141
R288	Z285	Z286	88.42	141
R289	Z286	Z287	62.84	141
R290	Z287	Z288	47.97	141
R291	Z288	Z289	112.72	141
R292	Z69	Z290	62.74	141
R293	Z69	Z291	21.78	197.4
R294	Z291	Z292	213.78	197.4
R295	Z292	Z293	241.55	197.4
R296	Z293	Z294	220.84	141
R297	Z294	Z295	46.21	141
R298	Z295	Z296	45.28	141
R299	Z293	Z297	127.87	141
R300	Z297	Z298	56.12	141
R301	Z298	Z299	73.08	141
R302	Z67	Z300	164.85	141
R303	Z67	Z301	229.85	141
R304	Z301	Z302	62.81	141
R305	Z302	Z303	72.95	141
R306	Z303	Z304	57.99	141
R307	Z304	Z305	100.75	141
R308	Z305	Z306	217.67	141
R309	Z305	Z307	64.94	141
R310	Z307	Z308	454.50	141
R311	Z68	Z309	122.36	141
R312	Z309	Z312	65.15	141
R313	Z309	Z310	63.04	141
R314	Z310	Z311	144.30	141
R315	Z63	Z313	168.16	141
R316	Z313	Z314	57.79	141
R317	Z314	Z315	112.48	141
R318	Z315	Z316	88.44	141
R319	Z315	Z317	96.05	141
R320	Z317	Z318	132.38	141
R321	Z2	Z319	16.60	141
R322	Z319	Z320	46.93	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R323	Z3	Z321	90.37	141
R326	Z77	I10	5	96.8
R327	Z76	I9	5	96.8
R328	Z75	I8	5	96.8
R329	Z74	I7	5	96.8
R330	Z78	I11	5	96.8
R331	Z79	I12	5	96.8
R332	Z80	I13	5	96.8
R333	Z80	I14	5	96.8
R334	Z81	I15	5	96.8
R335	Z70	I2	5	96.8
R336	Z71	I3	5	96.8
R337	Z72	I4	5	96.8
R338	Z73	I5	5	96.8
R339	Z73	I6	5	96.8
R340	Z49	I1	5	96.8
R341	Z86	I23	5	96.8
R342	Z85	I22	5	96.8
R343	Z84	I21	5	96.8
R344	Z83	I20	5	96.8
R345	Z82	I18	5	96.8
R346	Z82	I19	5	96.8
R347	Z88	I17	5	96.8
R348	Z87	I16	5	96.8
R349	Z53	I24	5	96.8
R350	Z95	I25	5	96.8
R351	Z96	I26	5	96.8
R352	Z97	I27	5	96.8
R353	Z94	I28	5	96.8
R354	Z93	I29	5	96.8
R355	Z92	I30	5	96.8
R356	Z91	I31	5	96.8
R357	Z91	I32	5	96.8
R358	Z90	I33	5	96.8
R359	Z89	I34	5	96.8
R360	Z98	I35	5	96.8
R361	Z98	I36	5	96.8
R362	Z99	I37	5	96.8
R363	Z99	I38	5	96.8
R364	Z99	I39	5	96.8
R365	Z100	I40	5	96.8
R366	Z100	I42	5	96.8
R367	Z100	I41	5	96.8
R368	Z101	I43	5	96.8
R369	Z101	I44	5	96.8
R370	Z104	I45	5	96.8
R371	Z103	I46	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R372	Z109	I47	5	96.8
R373	Z108	I48	5	96.8
R374	Z108	I49	5	96.8
R375	Z111	I50	5	96.8
R376	Z110	I51	5	96.8
R377	Z107	I53	5	96.8
R378	Z107	I52	5	96.8
R379	Z106	I54	5	96.8
R380	Z105	I55	5	96.8
R381	Z113	I59	5	96.8
R382	Z114	I60	5	96.8
R383	Z115	I62	5	96.8
R384	Z115	I61	5	96.8
R385	Z116	I63	5	96.8
R386	Z117	I64	5	96.8
R387	Z118	I56	5	96.8
R388	Z119	I57	5	96.8
R389	Z120	I58	5	96.8
R390	Z142	I65	5	96.8
R391	Z141	I66	5	96.8
R392	Z140	I67	5	96.8
R393	Z139	I68	5	96.8
R394	Z138	I69	5	96.8
R395	Z137	I70	5	96.8
R396	Z136	I71	5	96.8
R397	Z135	I72	5	96.8
R398	Z134	I75	5	96.8
R399	Z133	I74	5	96.8
R400	Z133	I73	5	96.8
R401	Z131	I76	5	96.8
R402	Z129	I77	5	96.8
R403	Z130	I78	5	96.8
R404	Z130	I79	5	96.8
R405	Z58	I80	5	96.8
R406	Z57	I81	5	96.8
R407	Z56	I82	5	96.8
R408	Z128	I83	5	96.8
R409	Z127	I84	5	96.8
R410	Z126	I85	5	96.8
R411	Z125	I86	5	96.8
R412	Z124	I87	5	96.8
R413	Z55	I88	5	96.8
R414	Z46	I89	5	96.8
R415	Z45	I90	5	96.8
R416	Z44	I91	5	96.8
R417	Z121	I92	5	96.8
R418	Z121	I93	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R419	Z122	I94	5	96.8
R420	Z123	I95	5	96.8
R421	Z41	I96	5	96.8
R422	Z149	I97	5	96.8
R423	Z148	I98	5	96.8
R424	Z147	I99	5	96.8
R425	Z146	I100	5	96.8
R426	Z143	I101	5	96.8
R427	Z144	I102	5	96.8
R428	Z145	I103	5	96.8
R429	Z160	I105	5	96.8
R430	Z160	I104	5	96.8
R431	Z159	I106	5	96.8
R432	Z158	I107	5	96.8
R433	Z157	I109	5	96.8
R434	Z157	I108	5	96.8
R435	Z156	I110	5	96.8
R436	Z155	I111	5	96.8
R437	Z150	I112	5	96.8
R438	Z151	I113	5	96.8
R439	Z152	I114	5	96.8
R440	Z161	I115	5	96.8
R441	Z161	I116	5	96.8
R442	Z161	I117	5	96.8
R443	Z165	I118	5	96.8
R444	Z164	I119	5	96.8
R445	Z163	I120	5	96.8
R446	Z162	I122	5	96.8
R447	Z162	I121	5	96.8
R448	Z166	I123	5	96.8
R449	Z166	I124	5	96.8
R450	Z167	I125	5	96.8
R451	Z238	I126	5	96.8
R452	Z239	I127	5	96.8
R453	Z240	I128	5	96.8
R454	Z241	I129	5	96.8
R455	Z242	I130	5	96.8
R456	Z243	I131	5	96.8
R457	Z244	I133	5	96.8
R458	Z244	I132	5	96.8
R459	Z245	I134	5	96.8
R460	Z246	I135	5	96.8
R461	Z247	I136	5	96.8
R462	Z248	I137	5	96.8
R463	Z248	I138	5	96.8
R464	Z249	I139	5	96.8
R465	Z250	I140	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R466	Z271	I142	5	96.8
R467	Z271	I141	5	96.8
R468	Z272	I143	5	96.8
R469	Z272	I144	5	96.8
R470	Z273	I145	5	96.8
R471	Z274	I146	5	96.8
R472	Z275	I147	5	96.8
R473	Z276	I148	5	96.8
R474	Z277	I149	5	96.8
R475	Z280	I150	5	96.8
R476	Z278	I151	5	96.8
R477	Z279	I152	5	96.8
R478	Z281	I153	5	96.8
R479	Z282	I154	5	96.8
R480	Z282	I155	5	96.8
R481	Z282	I156	5	96.8
R482	Z283	I157	5	96.8
R483	Z284	I158	5	96.8
R484	Z285	I159	5	96.8
R485	Z286	I160	5	96.8
R486	Z287	I161	5	96.8
R487	Z288	I162	5	96.8
R488	Z289	I163	5	96.8
R489	Z63	I164	5	96.8
R490	Z65	I165	5	96.8
R491	Z65	I166	5	96.8
R492	Z66	I167	5	96.8
R493	Z67	I169	5	96.8
R494	Z67	I170	5	96.8
R495	Z300	I168	5	96.8
R496	Z301	I171	5	96.8
R497	Z302	I172	5	96.8
R498	Z302	I173	5	96.8
R499	Z303	I174	5	96.8
R500	Z304	I175	5	96.8
R501	Z305	I176	5	96.8
R502	Z306	I177	5	96.8
R503	Z307	I178	5	96.8
R504	Z308	I179	5	96.8
R505	Z311	I180	5	96.8
R506	Z310	I181	5	96.8
R507	Z310	I182	5	96.8
R508	Z309	I183	5	96.8
R509	Z312	I184	5	96.8
R510	Z68	I185	5	96.8
R511	Z290	I186	5	96.8
R512	Z291	I187	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R513	Z292	I188	5	96.8
R514	Z293	I193	5	96.8
R515	Z294	I189	5	96.8
R516	Z294	I190	5	96.8
R517	Z295	I191	5	96.8
R518	Z296	I192	5	96.8
R519	Z297	I194	5	96.8
R520	Z298	I195	5	96.8
R521	Z298	I196	5	96.8
R522	Z299	I197	5	96.8
R523	Z313	I198	5	96.8
R524	Z314	I199	5	96.8
R525	Z316	I200	5	96.8
R526	Z317	I201	5	96.8
R527	Z317	I202	5	96.8
R528	Z317	I203	5	96.8
R529	Z318	I204	5	96.8
R530	Z320	I209	5	96.8
R531	Z319	I208	5	96.8
R532	Z3	I206	5	96.8
R533	Z3	I205	5	96.8
R534	Z321	I207	5	96.8
R535	Z168	I210	5	96.8
R536	Z170	I213	5	96.8
R537	Z169	I212	5	96.8
R538	Z169	I211	5	96.8
R539	Z171	I214	5	96.8
R540	Z172	I215	5	96.8
R541	Z173	I216	5	96.8
R542	Z174	I217	5	96.8
R543	Z175	I218	5	96.8
R544	Z175	I219	5	96.8
R545	Z183	I220	5	96.8
R546	Z182	I221	5	96.8
R547	Z181	I223	5	96.8
R548	Z181	I222	5	96.8
R549	Z179	I225	5	96.8
R550	Z180	I224	5	96.8
R551	Z177	I226	5	96.8
R552	Z177	I227	5	96.8
R553	Z178	I228	5	96.8
R554	Z184	I229	5	96.8
R555	Z186	I231	5	96.8
R556	Z185	I232	5	96.8
R557	Z187	I230	5	96.8
R558	Z188	I233	5	96.8
R559	Z188	I234	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R560	Z189	I235	5	96.8
R561	Z33	I236	5	96.8
R562	Z191	I237	5	96.8
R563	Z190	I238	5	96.8
R566	Z193	I241	5	96.8
R567	Z193	I242	5	96.8
R568	Z192	I240	5	96.8
R569	Z192	I239	5	96.8
R570	Z36	I243	5	96.8
R571	Z36	I244	5	96.8
R572	Z194	I245	5	96.8
R573	Z195	I246	5	96.8
R574	Z195	I247	5	96.8
R575	Z196	I248	5	96.8
R576	Z197	I249	5	96.8
R577	Z198	I250	22.13	96.8
R578	Z204	I251	5	96.8
R579	Z203	I252	5	96.8
R580	Z38	I258	5	96.8
R581	Z38	I257	5	96.8
R582	Z199	I256	5	96.8
R583	Z199	I255	5	96.8
R584	Z200	I254	5	96.8
R585	Z201	I253	5	96.8
R586	Z205	I259	5	96.8
R587	Z205	I260	5	96.8
R588	Z205	I261	5	96.8
R589	Z206	I262	5	96.8
R590	Z207	I263	5	96.8
R591	Z211	I264	5	96.8
R592	Z211	I265	5	96.8
R593	Z208	I267	5	96.8
R594	Z208	I266	5	96.8
R595	Z209	I268	5	96.8
R596	Z210	I269	5	96.8
R597	Z219	I270	5	96.8
R598	Z212	I272	5	96.8
R599	Z212	I271	5	96.8
R600	Z213	I273	5	96.8
R601	Z213	I274	5	96.8
R602	Z214	I275	5	96.8
R603	Z215	I276	5	96.8
R604	Z216	I277	5	96.8
R605	Z217	I278	5	96.8
R606	Z218	I279	5	96.8
R607	Z220	I280	5	96.8
R608	Z224	I281	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R609	Z224	I282	5	96.8
R610	Z223	I283	5	96.8
R611	Z222	I284	5	96.8
R612	Z221	I285	5	96.8
R613	Z225	I286	5	96.8
R614	Z225	I287	5	96.8
R615	Z226	I291	5	96.8
R616	Z226	I292	5	96.8
R617	Z226	I293	5	96.8
R618	Z227	I288	5	96.8
R619	Z227	I289	5	96.8
R620	Z228	I290	5	96.8
R621	Z229	I294	5	96.8
R622	Z230	I295	5	96.8
R623	Z231	I296	5	96.8
R624	Z232	I297	5	96.8
R625	Z233	I298	5	96.8
R626	Z233	I299	5	96.8
R627	Z234	I300	5	96.8
R628	Z235	I301	5	96.8
R629	Z236	I302	5	96.8
R630	Z237	I303	5	96.8
R631	Z265	I304	5	96.8
R632	Z265	I305	5	96.8
R633	Z264	I306	5	96.8
R634	Z263	I307	5	96.8
R635	Z266	I308	5	96.8
R636	Z267	I309	5	96.8
R637	Z268	I310	5	96.8
R638	Z269	I311	5	96.8
R639	Z270	I312	5	96.8
R640	Z260	I313	5	96.8
R641	Z259	I314	5	96.8
R642	Z258	I315	5	96.8
R643	Z257	I316	5	96.8
R644	Z256	I317	5	96.8
R645	Z254	I318	5	96.8
R646	Z261	I319	5	96.8
R647	Z262	I320	5	96.8
R648	Z262	I321	5	96.8
R649	Z253	I322	5	96.8
R650	Z252	I323	5	96.8
R651	Z251	I324	5	96.8
R652	Z251	I325	5	96.8
R653	Z251	I326	5	96.8
R37	Z38	Z37	706.98	277.6
P1	S1	Z52	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm		
P2	S1	Z52	#N/A	#N/A Pump		
P3	S1	Z52	#N/A	#N/A Pump		
P4	S1	Z52	#N/A	#N/A Pump		
Energy Usage:						
Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.84	156.84	0.00
P3	100.00	75.00	0.29	156.84	156.84	0.00
P4	100.00	75.00	0.29	156.84	156.84	0.00
Demand Charge:						0.00
Total Cost:						0.00

Node Results:

Node ID	Demand LPS	Head m	Pressure m	Quality

Z1	0.00	89.75	79.75	0.00
Z2	0.00	87.82	77.82	0.00
Z3	0.00	89.27	79.27	0.00
Z4	0.00	89.57	79.57	0.00
Z6	0.00	84.39	74.39	0.00
Z7	0.00	83.70	73.70	0.00
Z8	0.00	82.37	72.37	0.00
Z9	0.00	82.23	72.23	0.00
Z10	0.00	82.00	72.00	0.00
Z11	0.00	81.96	71.96	0.00
Z12	0.00	81.95	71.95	0.00
Z13	0.00	81.91	71.91	0.00
Z14	0.00	81.89	71.89	0.00
Z15	0.00	81.83	71.83	0.00
Z16	0.00	81.74	71.74	0.00
Z17	0.00	81.67	71.67	0.00
Z18	0.00	81.63	71.63	0.00
Z19	0.00	81.57	71.57	0.00
Z20	0.00	81.46	71.46	0.00
Z21	0.00	81.38	71.38	0.00
Z22	0.00	81.39	71.39	0.00
Z23	0.00	81.54	71.54	0.00
Z24	0.00	82.13	72.13	0.00
Z25	0.00	82.92	72.92	0.00
Z26	0.00	84.34	74.34	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality

Z27	0.00	87.20	77.20	0.00
Z28	0.00	88.26	78.26	0.00
Z29	0.00	88.83	78.83	0.00
Z30	0.00	89.50	79.50	0.00
Z31	0.00	81.67	71.67	0.00
Z32	0.00	81.67	71.67	0.00
Z33	0.00	81.68	71.68	0.00
Z34	0.00	81.68	71.68	0.00
Z35	0.00	81.69	71.69	0.00
Z36	0.00	81.70	71.70	0.00
Z37	0.00	81.70	71.70	0.00
Z38	0.00	81.72	71.72	0.00
Z39	0.00	81.73	71.73	0.00
Z40	0.00	81.74	71.74	0.00
Z41	0.00	82.92	72.92	0.00
Z42	0.00	82.92	72.92	0.00
Z43	0.00	82.92	72.92	0.00
Z44	0.00	82.92	72.92	0.00
Z45	0.00	82.92	72.92	0.00
Z46	0.00	82.92	72.92	0.00
Z47	0.00	82.23	72.23	0.00
Z48	0.00	82.23	72.23	0.00
Z49	0.00	89.57	79.57	0.00
Z50	0.00	89.57	79.57	0.00
Z51	0.00	89.57	79.57	0.00
Z52	0.00	90.00	80.00	0.00
Z53	0.00	88.83	78.83	0.00
Z54	0.00	88.83	78.83	0.00
Z55	0.00	82.92	72.92	0.00
Z56	0.00	82.92	72.92	0.00
Z57	0.00	82.92	72.92	0.00
Z58	0.00	82.92	72.92	0.00
Z59	0.00	82.92	72.92	0.00
Z60	0.00	82.23	72.23	0.00
Z61	0.00	82.23	72.23	0.00
Z62	0.00	76.93	66.93	0.00
Z63	0.00	78.21	68.21	0.00
Z64	0.00	74.06	64.06	0.00
Z65	0.00	73.32	63.32	0.00
Z66	0.00	71.13	61.13	0.00
Z67	0.00	69.60	59.60	0.00
Z68	0.00	62.01	52.01	0.00
Z69	0.00	61.30	51.30	0.00
Z70	0.00	89.57	79.57	0.00
Z71	0.00	89.57	79.57	0.00
Z72	0.00	89.57	79.57	0.00
Z73	0.00	89.57	79.57	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z74	0.00	89.57	79.57	0.00
Z75	0.00	89.57	79.57	0.00
Z76	0.00	89.57	79.57	0.00
Z77	0.00	89.57	79.57	0.00
Z78	0.00	89.57	79.57	0.00
Z79	0.00	89.57	79.57	0.00
Z80	0.00	89.57	79.57	0.00
Z81	0.00	89.57	79.57	0.00
Z82	0.00	89.50	79.50	0.00
Z83	0.00	89.50	79.50	0.00
Z84	0.00	89.50	79.50	0.00
Z85	0.00	89.50	79.50	0.00
Z86	0.00	89.50	79.50	0.00
Z87	0.00	89.50	79.50	0.00
Z88	0.00	89.50	79.50	0.00
Z89	0.00	88.83	78.83	0.00
Z90	0.00	88.83	78.83	0.00
Z91	0.00	88.83	78.83	0.00
Z92	0.00	88.83	78.83	0.00
Z93	0.00	88.83	78.83	0.00
Z94	0.00	88.83	78.83	0.00
Z95	0.00	88.83	78.83	0.00
Z96	0.00	88.83	78.83	0.00
Z97	0.00	88.83	78.83	0.00
Z98	0.00	88.26	78.26	0.00
Z99	0.00	88.26	78.26	0.00
Z100	0.00	88.26	78.26	0.00
Z101	0.00	87.20	77.20	0.00
Z102	0.00	87.20	77.20	0.00
Z103	0.00	87.20	77.20	0.00
Z104	0.00	87.20	77.20	0.00
Z105	0.00	84.34	74.34	0.00
Z106	0.00	84.34	74.34	0.00
Z107	0.00	84.34	74.34	0.00
Z108	0.00	84.34	74.34	0.00
Z109	0.00	84.34	74.34	0.00
Z110	0.00	84.34	74.34	0.00
Z111	0.00	84.34	74.34	0.00
Z112	0.00	84.34	74.34	0.00
Z113	0.00	84.34	74.34	0.00
Z114	0.00	84.34	74.34	0.00
Z115	0.00	84.34	74.34	0.00
Z116	0.00	84.34	74.34	0.00
Z117	0.00	84.34	74.34	0.00
Z118	0.00	84.34	74.34	0.00
Z119	0.00	84.34	74.34	0.00
Z120	0.00	84.34	74.34	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z121	0.00	82.92	72.92	0.00
Z122	0.00	82.92	72.92	0.00
Z123	0.00	82.92	72.92	0.00
Z124	0.00	82.92	72.92	0.00
Z125	0.00	82.92	72.92	0.00
Z126	0.00	82.92	72.92	0.00
Z127	0.00	82.92	72.92	0.00
Z128	0.00	82.92	72.92	0.00
Z129	0.00	82.92	72.92	0.00
Z130	0.00	82.92	72.92	0.00
Z131	0.00	82.92	72.92	0.00
Z132	0.00	82.92	72.92	0.00
Z133	0.00	82.92	72.92	0.00
Z134	0.00	82.92	72.92	0.00
Z135	0.00	82.92	72.92	0.00
Z136	0.00	82.92	72.92	0.00
Z137	0.00	82.92	72.92	0.00
Z138	0.00	82.92	72.92	0.00
Z139	0.00	82.92	72.92	0.00
Z140	0.00	82.92	72.92	0.00
Z141	0.00	82.92	72.92	0.00
Z142	0.00	82.92	72.92	0.00
Z143	0.00	81.50	71.50	0.00
Z144	0.00	81.42	71.42	0.00
Z145	0.00	81.39	71.39	0.00
Z146	0.00	81.06	71.06	0.00
Z147	0.00	80.90	70.90	0.00
Z148	0.00	80.82	70.82	0.00
Z149	0.00	80.80	70.80	0.00
Z150	0.00	79.87	69.87	0.00
Z151	0.00	79.60	69.60	0.00
Z152	0.00	79.50	69.50	0.00
Z153	0.00	79.82	69.82	0.00
Z154	0.00	76.48	66.48	0.00
Z155	0.00	76.20	66.20	0.00
Z156	0.00	76.13	66.13	0.00
Z157	0.00	76.06	66.06	0.00
Z158	0.00	75.86	65.86	0.00
Z159	0.00	75.56	65.56	0.00
Z160	0.00	75.43	65.43	0.00
Z161	0.00	81.25	71.25	0.00
Z162	0.00	76.60	66.60	0.00
Z163	0.00	76.04	66.04	0.00
Z164	0.00	75.24	65.24	0.00
Z165	0.00	75.22	65.22	0.00
Z166	0.00	75.66	65.66	0.00
Z167	0.00	75.58	65.58	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z168	0.00	81.46	71.46	0.00
Z169	0.00	81.46	71.46	0.00
Z170	0.00	81.46	71.46	0.00
Z171	0.00	81.46	71.46	0.00
Z172	0.00	81.46	71.46	0.00
Z173	0.00	81.46	71.46	0.00
Z174	0.00	81.46	71.46	0.00
Z175	0.00	81.46	71.46	0.00
Z176	0.00	81.57	71.57	0.00
Z177	0.00	81.57	71.57	0.00
Z178	0.00	81.57	71.57	0.00
Z179	0.00	81.57	71.57	0.00
Z180	0.00	81.57	71.57	0.00
Z181	0.00	81.57	71.57	0.00
Z182	0.00	81.57	71.57	0.00
Z183	0.00	81.57	71.57	0.00
Z184	0.00	81.63	71.63	0.00
Z185	0.00	81.67	71.67	0.00
Z186	0.00	81.67	71.67	0.00
Z187	0.00	81.67	71.67	0.00
Z188	0.00	81.67	71.67	0.00
Z189	0.00	81.67	71.67	0.00
Z190	0.00	81.68	71.68	0.00
Z191	0.00	81.68	71.68	0.00
Z192	0.00	81.69	71.69	0.00
Z193	0.00	81.69	71.69	0.00
Z194	0.00	81.70	71.70	0.00
Z195	0.00	81.70	71.70	0.00
Z196	0.00	81.70	71.70	0.00
Z197	0.00	81.70	71.70	0.00
Z198	0.00	81.70	71.70	0.00
Z199	0.00	81.72	71.72	0.00
Z200	0.00	81.72	71.72	0.00
Z201	0.00	81.72	71.72	0.00
Z202	0.00	81.73	71.73	0.00
Z203	0.00	81.73	71.73	0.00
Z204	0.00	81.73	71.73	0.00
Z205	0.00	81.73	71.73	0.00
Z206	0.00	81.73	71.73	0.00
Z207	0.00	81.73	71.73	0.00
Z208	0.00	81.74	71.74	0.00
Z209	0.00	81.74	71.74	0.00
Z210	0.00	81.74	71.74	0.00
Z211	0.00	81.74	71.74	0.00
Z212	0.00	81.83	71.83	0.00
Z213	0.00	81.83	71.83	0.00
Z214	0.00	81.83	71.83	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z215	0.00	81.83	71.83	0.00
Z216	0.00	81.83	71.83	0.00
Z217	0.00	81.83	71.83	0.00
Z218	0.00	81.83	71.83	0.00
Z219	0.00	81.83	71.83	0.00
Z220	0.00	81.89	71.89	0.00
Z221	0.00	81.91	71.91	0.00
Z222	0.00	81.91	71.91	0.00
Z223	0.00	81.91	71.91	0.00
Z224	0.00	81.91	71.91	0.00
Z225	0.00	81.95	71.95	0.00
Z226	0.00	81.95	71.95	0.00
Z227	0.00	81.95	71.95	0.00
Z228	0.00	81.95	71.95	0.00
Z229	0.00	81.95	71.95	0.00
Z230	0.00	81.95	71.95	0.00
Z231	0.00	81.95	71.95	0.00
Z232	0.00	81.96	71.96	0.00
Z233	0.00	81.96	71.96	0.00
Z234	0.00	81.96	71.96	0.00
Z235	0.00	81.96	71.96	0.00
Z236	0.00	81.96	71.96	0.00
Z237	0.00	81.96	71.96	0.00
Z238	0.00	75.99	65.99	0.00
Z239	0.00	72.14	62.14	0.00
Z240	0.00	70.35	60.35	0.00
Z241	0.00	69.18	59.18	0.00
Z242	0.00	67.75	57.75	0.00
Z243	0.00	67.10	57.10	0.00
Z244	0.00	66.58	56.58	0.00
Z245	0.00	66.55	56.55	0.00
Z246	0.00	75.92	65.92	0.00
Z247	0.00	75.28	65.28	0.00
Z248	0.00	74.68	64.68	0.00
Z249	0.00	74.45	64.45	0.00
Z250	0.00	74.40	64.40	0.00
Z251	0.00	82.23	72.23	0.00
Z252	0.00	82.23	72.23	0.00
Z253	0.00	82.23	72.23	0.00
Z254	0.00	82.23	72.23	0.00
Z255	0.00	82.23	72.23	0.00
Z256	0.00	82.23	72.23	0.00
Z257	0.00	82.23	72.23	0.00
Z258	0.00	82.23	72.23	0.00
Z259	0.00	82.23	72.23	0.00
Z260	0.00	82.23	72.23	0.00
Z261	0.00	82.23	72.23	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z262	0.00	82.23	72.23	0.00
Z263	0.00	82.23	72.23	0.00
Z264	0.00	82.23	72.23	0.00
Z265	0.00	82.23	72.23	0.00
Z266	0.00	82.23	72.23	0.00
Z267	0.00	82.23	72.23	0.00
Z268	0.00	82.23	72.23	0.00
Z269	0.00	82.23	72.23	0.00
Z270	0.00	82.23	72.23	0.00
Z271	0.00	81.98	71.98	0.00
Z272	0.00	81.67	71.67	0.00
Z273	0.00	81.60	71.60	0.00
Z274	0.00	79.94	69.94	0.00
Z275	0.00	77.76	67.76	0.00
Z276	0.00	77.06	67.06	0.00
Z277	0.00	76.40	66.40	0.00
Z278	0.00	76.29	66.29	0.00
Z279	0.00	76.21	66.21	0.00
Z280	0.00	76.28	66.28	0.00
Z281	0.00	77.13	67.13	0.00
Z282	0.00	71.28	61.28	0.00
Z283	0.00	70.28	60.28	0.00
Z284	0.00	67.18	57.18	0.00
Z285	0.00	66.41	56.41	0.00
Z286	0.00	65.83	55.83	0.00
Z287	0.00	65.58	55.58	0.00
Z288	0.00	65.49	55.49	0.00
Z289	0.00	65.43	55.43	0.00
Z290	0.00	61.27	51.27	0.00
Z291	0.00	60.94	50.94	0.00
Z292	0.00	59.48	49.48	0.00
Z293	0.00	58.12	48.12	0.00
Z294	0.00	56.58	46.58	0.00
Z295	0.00	56.50	46.50	0.00
Z296	0.00	56.47	46.47	0.00
Z297	0.00	57.29	47.29	0.00
Z298	0.00	57.07	47.07	0.00
Z299	0.00	57.03	47.03	0.00
Z300	0.00	69.51	59.51	0.00
Z301	0.00	62.39	52.39	0.00
Z302	0.00	60.91	50.91	0.00
Z303	0.00	59.90	49.90	0.00
Z304	0.00	59.33	49.33	0.00
Z305	0.00	58.67	48.67	0.00
Z306	0.00	58.55	48.55	0.00
Z307	0.00	58.55	48.55	0.00
Z308	0.00	58.31	48.31	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z309	0.00	60.65	50.65	0.00
Z310	0.00	60.41	50.41	0.00
Z311	0.00	60.33	50.33	0.00
Z312	0.00	60.61	50.61	0.00
Z313	0.00	74.83	64.83	0.00
Z314	0.00	74.03	64.03	0.00
Z315	0.00	72.92	62.92	0.00
Z316	0.00	72.87	62.87	0.00
Z317	0.00	72.29	62.29	0.00
Z318	0.00	72.22	62.22	0.00
Z319	0.00	87.77	77.77	0.00
Z320	0.00	87.74	77.74	0.00
Z321	0.00	89.21	79.21	0.00
I1	0.00	89.57	79.57	0.00
I2	0.00	89.57	79.57	0.00
I3	0.00	89.57	79.57	0.00
I4	0.00	89.57	79.57	0.00
I5	0.00	89.57	79.57	0.00
I6	0.00	89.57	79.57	0.00
I7	0.00	89.57	79.57	0.00
I8	0.00	89.57	79.57	0.00
I9	0.00	89.57	79.57	0.00
I10	0.00	89.57	79.57	0.00
I11	0.00	89.57	79.57	0.00
I12	0.00	89.57	79.57	0.00
I13	0.00	89.57	79.57	0.00
I14	0.00	89.57	79.57	0.00
I15	0.00	89.57	79.57	0.00
I23	0.00	89.50	79.50	0.00
I22	0.00	89.50	79.50	0.00
I21	0.00	89.50	79.50	0.00
I20	0.00	89.50	79.50	0.00
I19	0.00	89.50	79.50	0.00
I18	0.00	89.50	79.50	0.00
I17	0.00	89.50	79.50	0.00
I16	0.00	89.50	79.50	0.00
I24	0.00	88.83	78.83	0.00
I25	0.00	88.83	78.83	0.00
I26	0.00	88.83	78.83	0.00
I27	0.00	88.83	78.83	0.00
I28	0.00	88.83	78.83	0.00
I29	0.00	88.83	78.83	0.00
I30	0.00	88.83	78.83	0.00
I31	0.00	88.83	78.83	0.00
I32	0.00	88.83	78.83	0.00
I33	0.00	88.83	78.83	0.00
I34	0.00	88.83	78.83	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I35	0.00	88.26	78.26	0.00
I36	0.00	88.26	78.26	0.00
I37	0.00	88.26	78.26	0.00
I38	0.00	88.26	78.26	0.00
I39	0.00	88.26	78.26	0.00
I40	0.00	88.26	78.26	0.00
I41	0.00	88.26	78.26	0.00
I42	0.00	88.26	78.26	0.00
I43	0.00	87.20	77.20	0.00
I44	0.00	87.20	77.20	0.00
I45	0.00	87.20	77.20	0.00
I46	0.00	87.20	77.20	0.00
I47	0.00	84.34	74.34	0.00
I48	0.00	84.34	74.34	0.00
I49	0.00	84.34	74.34	0.00
I50	0.00	84.34	74.34	0.00
I51	0.00	84.34	74.34	0.00
I52	0.00	84.34	74.34	0.00
I53	0.00	84.34	74.34	0.00
I54	0.00	84.34	74.34	0.00
I55	0.00	84.34	74.34	0.00
I56	0.00	84.34	74.34	0.00
I57	0.00	84.34	74.34	0.00
I58	0.00	84.34	74.34	0.00
I59	0.00	84.34	74.34	0.00
I60	0.00	84.34	74.34	0.00
I61	0.00	84.34	74.34	0.00
I62	0.00	84.34	74.34	0.00
I63	0.00	84.34	74.34	0.00
I64	0.00	84.34	74.34	0.00
I65	0.00	82.92	72.92	0.00
I66	0.00	82.92	72.92	0.00
I67	0.00	82.92	72.92	0.00
I68	0.00	82.92	72.92	0.00
I69	0.00	82.92	72.92	0.00
I70	0.00	82.92	72.92	0.00
I71	0.00	82.92	72.92	0.00
I72	0.00	82.92	72.92	0.00
I73	0.00	82.92	72.92	0.00
I74	0.00	82.92	72.92	0.00
I75	0.00	82.92	72.92	0.00
I76	0.00	82.92	72.92	0.00
I77	0.00	82.92	72.92	0.00
I78	0.00	82.92	72.92	0.00
I79	0.00	82.92	72.92	0.00
I80	0.00	82.92	72.92	0.00
I81	0.00	82.92	72.92	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I82	0.00	82.92	72.92	0.00
I83	0.00	82.92	72.92	0.00
I84	0.00	82.92	72.92	0.00
I85	0.00	82.92	72.92	0.00
I86	0.00	82.92	72.92	0.00
I87	0.00	82.92	72.92	0.00
I88	0.00	82.92	72.92	0.00
I89	0.00	82.92	72.92	0.00
I90	0.00	82.92	72.92	0.00
I91	0.00	82.92	72.92	0.00
I92	0.00	82.92	72.92	0.00
I93	0.00	82.92	72.92	0.00
I94	0.00	82.92	72.92	0.00
I95	0.00	82.92	72.92	0.00
I96	0.00	82.92	72.92	0.00
I97	3.98	80.78	70.78	0.00
I98	3.98	80.81	70.81	0.00
I99	3.98	80.89	70.89	0.00
I100	3.98	81.04	71.04	0.00
I101	3.98	81.48	71.48	0.00
I102	3.98	81.40	71.40	0.00
I103	3.98	81.38	71.38	0.00
I104	3.98	75.41	65.41	0.00
I105	3.98	75.41	65.41	0.00
I106	3.98	75.55	65.55	0.00
I107	3.98	75.84	65.84	0.00
I108	3.98	76.05	66.05	0.00
I109	3.98	76.05	66.05	0.00
I110	3.98	76.11	66.11	0.00
I111	3.98	76.19	66.19	0.00
I112	3.98	79.86	69.86	0.00
I113	3.98	79.58	69.58	0.00
I114	3.98	79.49	69.49	0.00
I115	3.98	81.23	71.23	0.00
I116	3.98	81.23	71.23	0.00
I117	3.98	81.23	71.23	0.00
I118	3.98	75.20	65.20	0.00
I119	3.98	75.23	65.23	0.00
I120	3.98	76.03	66.03	0.00
I121	3.98	76.58	66.58	0.00
I122	3.98	76.58	66.58	0.00
I123	3.98	75.64	65.64	0.00
I124	3.98	75.64	65.64	0.00
I125	3.98	75.57	65.57	0.00
I126	3.98	75.97	65.97	0.00
I127	3.98	72.12	62.12	0.00
I128	3.98	70.34	60.34	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I129	3.98	69.16	59.16	0.00
I130	3.98	67.74	57.74	0.00
I131	3.98	67.09	57.09	0.00
I132	3.98	66.57	56.57	0.00
I133	3.98	66.57	56.57	0.00
I134	3.98	66.54	56.54	0.00
I135	3.98	75.91	65.91	0.00
I136	3.98	75.26	65.26	0.00
I137	3.98	74.67	64.67	0.00
I138	3.98	74.67	64.67	0.00
I139	3.98	74.44	64.44	0.00
I140	3.98	74.38	64.38	0.00
I141	3.98	81.97	71.97	0.00
I142	3.98	81.97	71.97	0.00
I143	3.98	81.65	71.65	0.00
I144	3.98	81.65	71.65	0.00
I145	3.98	81.58	71.58	0.00
I146	3.98	79.92	69.92	0.00
I147	3.98	77.74	67.74	0.00
I148	3.98	77.04	67.04	0.00
I149	3.98	76.38	66.38	0.00
I150	3.98	76.26	66.26	0.00
I151	3.98	76.28	66.28	0.00
I152	3.98	76.20	66.20	0.00
I153	3.98	77.11	67.11	0.00
I154	3.98	71.26	61.26	0.00
I155	3.98	71.26	61.26	0.00
I156	3.98	71.26	61.26	0.00
I157	3.98	70.27	60.27	0.00
I158	3.98	67.16	57.16	0.00
I159	3.98	66.39	56.39	0.00
I160	3.98	65.81	55.81	0.00
I161	3.98	65.57	55.57	0.00
I162	3.98	65.48	55.48	0.00
I163	3.98	65.42	55.42	0.00
I164	3.98	78.19	68.19	0.00
I165	3.98	73.30	63.30	0.00
I166	3.98	73.30	63.30	0.00
I167	3.98	71.11	61.11	0.00
I168	3.98	69.49	59.49	0.00
I169	3.98	69.59	59.59	0.00
I170	3.98	69.59	59.59	0.00
I171	3.98	62.37	52.37	0.00
I172	3.98	60.89	50.89	0.00
I173	3.98	60.89	50.89	0.00
I174	3.98	59.89	49.89	0.00
I175	3.98	59.32	49.32	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I176	3.98	58.66	48.66	0.00
I177	3.98	58.53	48.53	0.00
I178	3.98	58.54	48.54	0.00
I179	3.98	58.29	48.29	0.00
I180	3.98	60.31	50.31	0.00
I181	3.98	60.39	50.39	0.00
I182	3.98	60.39	50.39	0.00
I183	3.98	60.64	50.64	0.00
I184	3.98	60.59	50.59	0.00
I185	3.98	61.99	51.99	0.00
I186	3.98	61.25	51.25	0.00
I187	3.98	60.92	50.92	0.00
I188	3.98	59.46	49.46	0.00
I189	3.98	56.57	46.57	0.00
I190	3.98	56.57	46.57	0.00
I191	3.98	56.48	46.48	0.00
I192	3.98	56.46	46.46	0.00
I193	3.98	58.11	48.11	0.00
I194	3.98	57.27	47.27	0.00
I195	3.98	57.05	47.05	0.00
I196	3.98	57.05	47.05	0.00
I197	3.98	57.01	47.01	0.00
I198	3.98	74.81	64.81	0.00
I199	3.98	74.01	64.01	0.00
I200	3.98	72.85	62.85	0.00
I201	3.98	72.28	62.28	0.00
I202	3.98	72.28	62.28	0.00
I203	3.98	72.28	62.28	0.00
I204	3.98	72.21	62.21	0.00
I205	3.98	89.25	79.25	0.00
I206	3.98	89.25	79.25	0.00
I207	3.98	89.20	79.20	0.00
I208	3.98	87.75	77.75	0.00
I209	3.98	87.73	77.73	0.00
I210	0.00	81.46	71.46	0.00
I211	0.00	81.46	71.46	0.00
I212	0.00	81.46	71.46	0.00
I213	0.00	81.46	71.46	0.00
I214	0.00	81.46	71.46	0.00
I215	0.00	81.46	71.46	0.00
I216	0.00	81.46	71.46	0.00
I217	0.00	81.46	71.46	0.00
I218	0.00	81.46	71.46	0.00
I219	0.00	81.46	71.46	0.00
I220	0.00	81.57	71.57	0.00
I221	0.00	81.57	71.57	0.00
I222	0.00	81.57	71.57	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I223	0.00	81.57	71.57	0.00
I224	0.00	81.57	71.57	0.00
I225	0.00	81.57	71.57	0.00
I226	0.00	81.57	71.57	0.00
I227	0.00	81.57	71.57	0.00
I228	0.00	81.57	71.57	0.00
I229	0.00	81.63	71.63	0.00
I230	0.00	81.67	71.67	0.00
I231	0.00	81.67	71.67	0.00
I232	0.00	81.67	71.67	0.00
I233	0.00	81.67	71.67	0.00
I234	0.00	81.67	71.67	0.00
I235	0.00	81.67	71.67	0.00
I236	0.00	81.68	71.68	0.00
I237	0.00	81.68	71.68	0.00
I238	0.00	81.68	71.68	0.00
I239	0.00	81.69	71.69	0.00
I240	0.00	81.69	71.69	0.00
I241	0.00	81.69	71.69	0.00
I242	0.00	81.69	71.69	0.00
I243	0.00	81.70	71.70	0.00
I244	0.00	81.70	71.70	0.00
I245	0.00	81.70	71.70	0.00
I246	0.00	81.70	71.70	0.00
I247	0.00	81.70	71.70	0.00
I248	0.00	81.70	71.70	0.00
I249	0.00	81.70	71.70	0.00
I250	0.00	81.70	71.70	0.00
I251	0.00	81.73	71.73	0.00
I252	0.00	81.73	71.73	0.00
I253	0.00	81.72	71.72	0.00
I254	0.00	81.72	71.72	0.00
I255	0.00	81.72	71.72	0.00
I256	0.00	81.72	71.72	0.00
I257	0.00	81.72	71.72	0.00
I258	0.00	81.72	71.72	0.00
I259	0.00	81.73	71.73	0.00
I260	0.00	81.73	71.73	0.00
I261	0.00	81.73	71.73	0.00
I262	0.00	81.73	71.73	0.00
I263	0.00	81.73	71.73	0.00
I264	0.00	81.74	71.74	0.00
I265	0.00	81.74	71.74	0.00
I266	0.00	81.74	71.74	0.00
I267	0.00	81.74	71.74	0.00
I268	0.00	81.74	71.74	0.00
I269	0.00	81.74	71.74	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I270	0.00	81.83	71.83	0.00
I271	0.00	81.83	71.83	0.00
I272	0.00	81.83	71.83	0.00
I273	0.00	81.83	71.83	0.00
I274	0.00	81.83	71.83	0.00
I275	0.00	81.83	71.83	0.00
I276	0.00	81.83	71.83	0.00
I277	0.00	81.83	71.83	0.00
I278	0.00	81.83	71.83	0.00
I279	0.00	81.83	71.83	0.00
I280	0.00	81.89	71.89	0.00
I281	0.00	81.91	71.91	0.00
I282	0.00	81.91	71.91	0.00
I283	0.00	81.91	71.91	0.00
I284	0.00	81.91	71.91	0.00
I285	0.00	81.91	71.91	0.00
I286	0.00	81.95	71.95	0.00
I287	0.00	81.95	71.95	0.00
I288	0.00	81.95	71.95	0.00
I289	0.00	81.95	71.95	0.00
I290	0.00	81.95	71.95	0.00
I291	0.00	81.95	71.95	0.00
I292	0.00	81.95	71.95	0.00
I293	0.00	81.95	71.95	0.00
I294	0.00	81.95	71.95	0.00
I295	0.00	81.95	71.95	0.00
I296	0.00	81.95	71.95	0.00
I297	0.00	81.96	71.96	0.00
I298	0.00	81.96	71.96	0.00
I299	0.00	81.96	71.96	0.00
I300	0.00	81.96	71.96	0.00
I301	0.00	81.96	71.96	0.00
I302	0.00	81.96	71.96	0.00
I303	0.00	81.96	71.96	0.00
I304	0.00	82.23	72.23	0.00
I305	0.00	82.23	72.23	0.00
I306	0.00	82.23	72.23	0.00
I307	0.00	82.23	72.23	0.00
I308	0.00	82.23	72.23	0.00
I309	0.00	82.23	72.23	0.00
I310	0.00	82.23	72.23	0.00
I311	0.00	82.23	72.23	0.00
I312	0.00	82.23	72.23	0.00
I313	0.00	82.23	72.23	0.00
I314	0.00	82.23	72.23	0.00
I315	0.00	82.23	72.23	0.00
I316	0.00	82.23	72.23	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I317	0.00	82.23	72.23	0.00
I318	0.00	82.23	72.23	0.00
I319	0.00	82.23	72.23	0.00
I320	0.00	82.23	72.23	0.00
I321	0.00	82.23	72.23	0.00
I322	0.00	82.23	72.23	0.00
I323	0.00	82.23	72.23	0.00
I324	0.00	82.23	72.23	0.00
I325	0.00	82.23	72.23	0.00
I326	0.00	82.23	72.23	0.00
S1	-450.00	10.00	0.00	0.00 Reservoir

Link Results:

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1	96.39	0.49	0.49	Open
R2	353.61	1.80	13.44	Open
R3	96.39	0.49	0.43	Open
R4	96.39	0.77	1.32	Open
R5	96.39	0.77	1.32	Open
R6	96.39	1.25	3.68	Open
R7	96.39	1.25	3.68	Open
R8	96.39	1.25	3.68	Open
R9	96.39	1.25	3.68	Open
R10	68.52	0.89	1.96	Open
R11	24.71	0.32	0.31	Open
R12	12.77	0.17	0.09	Open
R13	-19.09	0.25	0.19	Open
R14	-19.09	0.25	0.19	Open
R15	-19.09	0.25	0.19	Open
R16	-19.09	0.25	0.19	Open
R17	-14.41	0.19	0.12	Open
R18	-19.09	0.25	0.19	Open
R19	-19.09	0.25	0.19	Open
R20	-19.09	0.25	0.19	Open
R21	-19.09	0.25	0.19	Open
R22	-19.09	0.15	0.06	Open
R23	-19.09	0.15	0.06	Open
R24	-78.83	0.63	0.90	Open
R25	-78.83	0.63	0.90	Open
R26	-98.74	0.79	1.38	Open
R27	-170.42	1.36	3.95	Open
R28	-333.69	1.70	4.68	Open
R29	-341.66	1.74	4.90	Open
R30	-4.68	0.08	0.05	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R31	-4.68	0.08	0.03	Open
R32	-4.68	0.08	0.03	Open
R33	-4.68	0.08	0.03	Open
R34	-4.68	0.08	0.03	Open
R35	-4.68	0.08	0.03	Open
R36	-4.68	0.08	0.03	Open
R39	-4.68	0.08	0.03	Open
R40	-4.68	0.08	0.03	Open
R41	0.00	0.00	0.00	Open
R42	0.00	0.00	0.00	Open
R43	0.00	0.00	0.00	Open
R44	0.00	0.00	0.00	Open
R45	0.00	0.00	0.00	Open
R46	0.00	0.00	0.00	Open
R47	0.00	0.00	0.00	Open
R48	0.00	0.00	0.00	Open
R49	0.00	0.00	0.00	Open
R50	0.00	0.00	0.00	Open
R51	0.00	0.00	0.00	Open
R52	450.00	2.29	8.39	Open
R53	0.00	0.00	0.00	Open
R54	0.00	0.00	0.00	Open
R55	0.00	0.00	0.00	Open
R56	0.00	0.00	0.00	Open
R57	0.00	0.00	0.00	Open
R58	0.00	0.00	0.00	Open
R59	0.00	0.00	0.00	Open
R60	0.00	0.00	0.00	Open
R61	0.00	0.00	0.00	Open
R62	59.73	1.95	15.54	Open
R63	163.27	5.33	166.37	Open
R64	131.42	4.29	63.67	Open
R65	59.73	1.95	27.15	Open
R66	51.77	1.69	11.09	Open
R67	47.79	1.56	9.56	Open
R68	71.68	2.34	20.33	Open
R69	47.79	1.56	9.56	Open
R71	0.00	0.00	0.00	Open
R72	0.00	0.00	0.00	Open
R73	0.00	0.00	0.00	Open
R74	0.00	0.00	0.00	Open
R75	0.00	0.00	0.00	Open
R76	0.00	0.00	0.00	Open
R77	0.00	0.00	0.00	Open
R78	0.00	0.00	0.00	Open
R79	0.00	0.00	0.00	Open
R80	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R81	0.00	0.00	0.00	0.00	Open
R82	0.00	0.00	0.00	0.00	Open
R83	0.00	0.00	0.00	0.00	Open
R84	0.00	0.00	0.00	0.00	Open
R85	0.00	0.00	0.00	0.00	Open
R86	0.00	0.00	0.00	0.00	Open
R87	0.00	0.00	0.00	0.00	Open
R88	0.00	0.00	0.00	0.00	Open
R89	0.00	0.00	0.00	0.00	Open
R90	0.00	0.00	0.00	0.00	Open
R91	0.00	0.00	0.00	0.00	Open
R92	0.00	0.00	0.00	0.00	Open
R93	0.00	0.00	0.00	0.00	Open
R94	0.00	0.00	0.00	0.00	Open
R95	0.00	0.00	0.00	0.00	Open
R96	0.00	0.00	0.00	0.00	Open
R97	0.00	0.00	0.00	0.00	Open
R98	0.00	0.00	0.00	0.00	Open
R99	0.00	0.00	0.00	0.00	Open
R100	0.00	0.00	0.00	0.00	Open
R101	0.00	0.00	0.00	0.00	Open
R102	0.00	0.00	0.00	0.00	Open
R103	0.00	0.00	0.00	0.00	Open
R104	0.00	0.00	0.00	0.00	Open
R105	0.00	0.00	0.00	0.00	Open
R106	0.00	0.00	0.00	0.00	Open
R107	0.00	0.00	0.00	0.00	Open
R108	0.00	0.00	0.00	0.00	Open
R109	0.00	0.00	0.00	0.00	Open
R110	0.00	0.00	0.00	0.00	Open
R111	0.00	0.00	0.00	0.00	Open
R112	0.00	0.00	0.00	0.00	Open
R113	0.00	0.00	0.00	0.00	Open
R114	0.00	0.00	0.00	0.00	Open
R115	0.00	0.00	0.00	0.00	Open
R116	0.00	0.00	0.00	0.00	Open
R117	0.00	0.00	0.00	0.00	Open
R118	0.00	0.00	0.00	0.00	Open
R119	0.00	0.00	0.00	0.00	Open
R120	0.00	0.00	0.00	0.00	Open
R121	0.00	0.00	0.00	0.00	Open
R122	0.00	0.00	0.00	0.00	Open
R123	0.00	0.00	0.00	0.00	Open
R124	0.00	0.00	0.00	0.00	Open
R125	0.00	0.00	0.00	0.00	Open
R126	0.00	0.00	0.00	0.00	Open
R127	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R128	0.00	0.00	0.00	0.00	Open
R129	0.00	0.00	0.00	0.00	Open
R130	0.00	0.00	0.00	0.00	Open
R131	0.00	0.00	0.00	0.00	Open
R132	0.00	0.00	0.00	0.00	Open
R133	0.00	0.00	0.00	0.00	Open
R134	0.00	0.00	0.00	0.00	Open
R135	0.00	0.00	0.00	0.00	Open
R136	0.00	0.00	0.00	0.00	Open
R137	0.00	0.00	0.00	0.00	Open
R138	0.00	0.00	0.00	0.00	Open
R139	0.00	0.00	0.00	0.00	Open
R140	0.00	0.00	0.00	0.00	Open
R141	0.00	0.00	0.00	0.00	Open
R142	0.00	0.00	0.00	0.00	Open
R143	0.00	0.00	0.00	0.00	Open
R144	27.88	1.79	34.13	0.00	Open
R145	7.96	0.51	2.62	0.00	Open
R146	3.98	0.26	0.54	0.00	Open
R147	15.93	1.02	6.54	0.00	Open
R148	11.95	0.77	3.87	0.00	Open
R149	7.96	0.51	1.86	0.00	Open
R150	3.98	0.26	0.54	0.00	Open
R151	-43.81	2.81	75.20	0.00	Open
R152	7.96	0.51	3.19	0.00	Open
R153	7.96	0.51	1.86	0.00	Open
R154	3.98	0.26	0.54	0.00	Open
R155	31.86	2.04	23.51	0.00	Open
R156	7.96	0.51	1.86	0.00	Open
R157	3.98	0.26	0.54	0.00	Open
R158	23.89	1.53	28.17	0.00	Open
R159	15.93	1.02	6.54	0.00	Open
R160	11.95	0.77	3.87	0.00	Open
R161	7.96	0.51	1.86	0.00	Open
R162	11.95	0.77	6.14	0.00	Open
R163	31.86	2.04	25.56	0.00	Open
R164	11.95	0.77	4.29	0.00	Open
R165	7.96	0.51	1.86	0.00	Open
R166	3.98	0.26	0.54	0.00	Open
R167	11.95	0.77	3.87	0.00	Open
R168	3.98	0.26	0.54	0.00	Open
R169	0.00	0.00	0.00	0.00	Open
R170	0.00	0.00	0.00	0.00	Open
R171	0.00	0.00	0.00	0.00	Open
R172	0.00	0.00	0.00	0.00	Open
R173	0.00	0.00	0.00	0.00	Open
R174	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R175	0.00	0.00	0.00	0.00	Open
R176	0.00	0.00	0.00	0.00	Open
R177	0.00	0.00	0.00	0.00	Open
R178	0.00	0.00	0.00	0.00	Open
R179	0.00	0.00	0.00	0.00	Open
R180	0.00	0.00	0.00	0.00	Open
R181	0.00	0.00	0.00	0.00	Open
R182	0.00	0.00	0.00	0.00	Open
R183	0.00	0.00	0.00	0.00	Open
R184	0.00	0.00	0.00	0.00	Open
R185	0.00	0.00	0.00	0.00	Open
R186	0.00	0.00	0.00	0.00	Open
R187	0.00	0.00	0.00	0.00	Open
R188	0.00	0.00	0.00	0.00	Open
R189	0.00	0.00	0.00	0.00	Open
R190	0.00	0.00	0.00	0.00	Open
R191	0.00	0.00	0.00	0.00	Open
R192	0.00	0.00	0.00	0.00	Open
R193	0.00	0.00	0.00	0.00	Open
R194	0.00	0.00	0.00	0.00	Open
R195	0.00	0.00	0.00	0.00	Open
R196	0.00	0.00	0.00	0.00	Open
R197	0.00	0.00	0.00	0.00	Open
R198	0.00	0.00	0.00	0.00	Open
R199	0.00	0.00	0.00	0.00	Open
R200	0.00	0.00	0.00	0.00	Open
R201	0.00	0.00	0.00	0.00	Open
R202	0.00	0.00	0.00	0.00	Open
R203	-4.68	0.08	0.08	0.03	Open
R204	-4.68	0.08	0.08	0.03	Open
R205	0.00	0.00	0.00	0.00	Open
R206	0.00	0.00	0.00	0.00	Open
R207	0.00	0.00	0.00	0.00	Open
R208	0.00	0.00	0.00	0.00	Open
R209	0.00	0.00	0.00	0.00	Open
R210	0.00	0.00	0.00	0.00	Open
R211	0.00	0.00	0.00	0.00	Open
R212	0.00	0.00	0.00	0.00	Open
R213	0.00	0.00	0.00	0.00	Open
R214	0.00	0.00	0.00	0.00	Open
R215	0.00	0.00	0.00	0.00	Open
R216	0.00	0.00	0.00	0.00	Open
R217	0.00	0.00	0.00	0.00	Open
R218	0.00	0.00	0.00	0.00	Open
R219	0.00	0.00	0.00	0.00	Open
R220	0.00	0.00	0.00	0.00	Open
R221	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R222	0.00	0.00	0.00	0.00	Open
R223	0.00	0.00	0.00	0.00	Open
R224	0.00	0.00	0.00	0.00	Open
R225	0.00	0.00	0.00	0.00	Open
R226	0.00	0.00	0.00	0.00	Open
R227	0.00	0.00	0.00	0.00	Open
R228	0.00	0.00	0.00	0.00	Open
R229	0.00	0.00	0.00	0.00	Open
R230	0.00	0.00	0.00	0.00	Open
R231	0.00	0.00	0.00	0.00	Open
R232	0.00	0.00	0.00	0.00	Open
R233	0.00	0.00	0.00	0.00	Open
R234	0.00	0.00	0.00	0.00	Open
R235	0.00	0.00	0.00	0.00	Open
R236	0.00	0.00	0.00	0.00	Open
R237	0.00	0.00	0.00	0.00	Open
R238	0.00	0.00	0.00	0.00	Open
R239	0.00	0.00	0.00	0.00	Open
R240	35.84	2.30	60.05	23.51	Open
R241	31.86	2.04	23.51	18.35	Open
R242	27.88	1.79	18.35	13.79	Open
R243	23.89	1.53	13.79	9.86	Open
R244	19.91	1.28	9.86	6.54	Open
R245	15.93	1.02	6.54	3.87	Open
R246	11.95	0.77	3.87	0.54	Open
R247	3.98	0.26	0.54	17.52	Open
R248	23.89	1.53	17.52	9.86	Open
R249	19.91	1.28	9.86	6.54	Open
R250	15.93	1.02	6.54	1.86	Open
R251	7.96	0.51	1.86	0.54	Open
R252	3.98	0.26	0.54	0.00	Open
R253	0.00	0.00	0.00	0.00	Open
R254	0.00	0.00	0.00	0.00	Open
R255	0.00	0.00	0.00	0.00	Open
R256	0.00	0.00	0.00	0.00	Open
R257	0.00	0.00	0.00	0.00	Open
R258	0.00	0.00	0.00	0.00	Open
R259	0.00	0.00	0.00	0.00	Open
R260	0.00	0.00	0.00	0.00	Open
R261	0.00	0.00	0.00	0.00	Open
R262	0.00	0.00	0.00	0.00	Open
R263	0.00	0.00	0.00	0.00	Open
R264	0.00	0.00	0.00	0.00	Open
R265	0.00	0.00	0.00	0.00	Open
R266	0.00	0.00	0.00	0.00	Open
R267	0.00	0.00	0.00	0.00	Open
R268	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R269	0.00	0.00	0.00	0.00	Open
R270	0.00	0.00	0.00	0.00	Open
R271	0.00	0.00	0.00	0.00	Open
R272	0.00	0.00	0.00	0.00	Open
R273	19.91	1.28	15.91	0.00	Open
R274	11.95	0.77	3.87	0.00	Open
R275	3.98	0.26	0.54	0.00	Open
R276	71.68	4.59	221.62	0.00	Open
R277	23.89	1.53	15.30	0.00	Open
R278	19.91	1.28	9.86	0.00	Open
R279	15.93	1.02	6.54	0.00	Open
R280	3.98	0.26	0.57	0.00	Open
R281	7.96	0.51	1.86	0.00	Open
R282	3.98	0.26	0.54	0.00	Open
R283	43.81	1.43	8.14	0.00	Open
R284	39.82	2.55	35.66	0.00	Open
R285	27.88	1.79	18.35	0.00	Open
R286	23.89	1.53	13.79	0.00	Open
R287	19.91	1.28	9.86	0.00	Open
R288	15.93	1.02	6.54	0.00	Open
R289	11.95	0.77	3.87	0.00	Open
R290	7.96	0.51	1.86	0.00	Open
R291	3.98	0.26	0.54	0.00	Open
R292	3.98	0.26	0.63	0.00	Open
R293	43.81	1.43	16.76	0.00	Open
R294	39.82	1.30	6.82	0.00	Open
R295	35.84	1.17	5.62	0.00	Open
R296	15.93	1.02	6.98	0.00	Open
R297	7.96	0.51	1.86	0.00	Open
R298	3.98	0.26	0.54	0.00	Open
R299	15.93	1.02	6.54	0.00	Open
R300	11.95	0.77	3.87	0.00	Open
R301	3.98	0.26	0.54	0.00	Open
R302	3.98	0.26	0.57	0.00	Open
R303	35.84	2.30	31.39	0.00	Open
R304	31.86	2.04	23.51	0.00	Open
R305	23.89	1.53	13.79	0.00	Open
R306	19.91	1.28	9.86	0.00	Open
R307	15.93	1.02	6.54	0.00	Open
R308	3.98	0.26	0.56	0.00	Open
R309	7.96	0.51	1.86	0.00	Open
R310	3.98	0.26	0.54	0.00	Open
R311	19.91	1.28	11.07	0.00	Open
R312	3.98	0.26	0.63	0.00	Open
R313	11.95	0.77	3.87	0.00	Open
R314	3.98	0.26	0.54	0.00	Open
R315	27.88	1.79	20.09	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R316	23.89	1.53	13.79	0.00	Open
R317	19.91	1.28	9.86	0.00	Open
R318	3.98	0.26	0.60	0.00	Open
R319	15.93	1.02	6.54	0.00	Open
R320	3.98	0.26	0.54	0.00	Open
R321	7.96	0.51	3.30	0.00	Open
R322	3.98	0.26	0.54	0.00	Open
R323	3.98	0.26	0.60	0.00	Open
R326	0.00	0.00	0.00	0.00	Open
R327	0.00	0.00	0.00	0.00	Open
R328	0.00	0.00	0.00	0.00	Open
R329	0.00	0.00	0.00	0.00	Open
R330	0.00	0.00	0.00	0.00	Open
R331	0.00	0.00	0.00	0.00	Open
R332	0.00	0.00	0.00	0.00	Open
R333	0.00	0.00	0.00	0.00	Open
R334	0.00	0.00	0.00	0.00	Open
R335	0.00	0.00	0.00	0.00	Open
R336	0.00	0.00	0.00	0.00	Open
R337	0.00	0.00	0.00	0.00	Open
R338	0.00	0.00	0.00	0.00	Open
R339	0.00	0.00	0.00	0.00	Open
R340	0.00	0.00	0.00	0.00	Open
R341	0.00	0.00	0.00	0.00	Open
R342	0.00	0.00	0.00	0.00	Open
R343	0.00	0.00	0.00	0.00	Open
R344	0.00	0.00	0.00	0.00	Open
R345	0.00	0.00	0.00	0.00	Open
R346	0.00	0.00	0.00	0.00	Open
R347	0.00	0.00	0.00	0.00	Open
R348	0.00	0.00	0.00	0.00	Open
R349	0.00	0.00	0.00	0.00	Open
R350	0.00	0.00	0.00	0.00	Open
R351	0.00	0.00	0.00	0.00	Open
R352	0.00	0.00	0.00	0.00	Open
R353	0.00	0.00	0.00	0.00	Open
R354	0.00	0.00	0.00	0.00	Open
R355	0.00	0.00	0.00	0.00	Open
R356	0.00	0.00	0.00	0.00	Open
R357	0.00	0.00	0.00	0.00	Open
R358	0.00	0.00	0.00	0.00	Open
R359	0.00	0.00	0.00	0.00	Open
R360	0.00	0.00	0.00	0.00	Open
R361	0.00	0.00	0.00	0.00	Open
R362	0.00	0.00	0.00	0.00	Open
R363	0.00	0.00	0.00	0.00	Open
R364	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R365	0.00	0.00	0.00	0.00	Open
R366	0.00	0.00	0.00	0.00	Open
R367	0.00	0.00	0.00	0.00	Open
R368	0.00	0.00	0.00	0.00	Open
R369	0.00	0.00	0.00	0.00	Open
R370	0.00	0.00	0.00	0.00	Open
R371	0.00	0.00	0.00	0.00	Open
R372	0.00	0.00	0.00	0.00	Open
R373	0.00	0.00	0.00	0.00	Open
R374	0.00	0.00	0.00	0.00	Open
R375	0.00	0.00	0.00	0.00	Open
R376	0.00	0.00	0.00	0.00	Open
R377	0.00	0.00	0.00	0.00	Open
R378	0.00	0.00	0.00	0.00	Open
R379	0.00	0.00	0.00	0.00	Open
R380	0.00	0.00	0.00	0.00	Open
R381	0.00	0.00	0.00	0.00	Open
R382	0.00	0.00	0.00	0.00	Open
R383	0.00	0.00	0.00	0.00	Open
R384	0.00	0.00	0.00	0.00	Open
R385	0.00	0.00	0.00	0.00	Open
R386	0.00	0.00	0.00	0.00	Open
R387	0.00	0.00	0.00	0.00	Open
R388	0.00	0.00	0.00	0.00	Open
R389	0.00	0.00	0.00	0.00	Open
R390	0.00	0.00	0.00	0.00	Open
R391	0.00	0.00	0.00	0.00	Open
R392	0.00	0.00	0.00	0.00	Open
R393	0.00	0.00	0.00	0.00	Open
R394	0.00	0.00	0.00	0.00	Open
R395	0.00	0.00	0.00	0.00	Open
R396	0.00	0.00	0.00	0.00	Open
R397	0.00	0.00	0.00	0.00	Open
R398	0.00	0.00	0.00	0.00	Open
R399	0.00	0.00	0.00	0.00	Open
R400	0.00	0.00	0.00	0.00	Open
R401	0.00	0.00	0.00	0.00	Open
R402	0.00	0.00	0.00	0.00	Open
R403	0.00	0.00	0.00	0.00	Open
R404	0.00	0.00	0.00	0.00	Open
R405	0.00	0.00	0.00	0.00	Open
R406	0.00	0.00	0.00	0.00	Open
R407	0.00	0.00	0.00	0.00	Open
R408	0.00	0.00	0.00	0.00	Open
R409	0.00	0.00	0.00	0.00	Open
R410	0.00	0.00	0.00	0.00	Open
R411	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R412	0.00	0.00	0.00	0.00	Open
R413	0.00	0.00	0.00	0.00	Open
R414	0.00	0.00	0.00	0.00	Open
R415	0.00	0.00	0.00	0.00	Open
R416	0.00	0.00	0.00	0.00	Open
R417	0.00	0.00	0.00	0.00	Open
R418	0.00	0.00	0.00	0.00	Open
R419	0.00	0.00	0.00	0.00	Open
R420	0.00	0.00	0.00	0.00	Open
R421	0.00	0.00	0.00	0.00	Open
R422	3.98	0.54	3.28	3.28	Open
R423	3.98	0.54	3.28	3.28	Open
R424	3.98	0.54	3.28	3.28	Open
R425	3.98	0.54	3.28	3.28	Open
R426	3.98	0.54	3.28	3.28	Open
R427	3.98	0.54	3.28	3.28	Open
R428	3.98	0.54	3.28	3.28	Open
R429	3.98	0.54	3.28	3.28	Open
R430	3.98	0.54	3.28	3.28	Open
R431	3.98	0.54	3.28	3.28	Open
R432	3.98	0.54	3.28	3.28	Open
R433	3.98	0.54	3.28	3.28	Open
R434	3.98	0.54	3.28	3.28	Open
R435	3.98	0.54	3.28	3.28	Open
R436	3.98	0.54	3.28	3.28	Open
R437	3.98	0.54	3.28	3.28	Open
R438	3.98	0.54	3.28	3.28	Open
R439	3.98	0.54	3.28	3.28	Open
R440	3.98	0.54	3.28	3.28	Open
R441	3.98	0.54	3.28	3.28	Open
R442	3.98	0.54	3.28	3.28	Open
R443	3.98	0.54	3.28	3.28	Open
R444	3.98	0.54	3.28	3.28	Open
R445	3.98	0.54	3.28	3.28	Open
R446	3.98	0.54	3.28	3.28	Open
R447	3.98	0.54	3.28	3.28	Open
R448	3.98	0.54	3.28	3.28	Open
R449	3.98	0.54	3.28	3.28	Open
R450	3.98	0.54	3.28	3.28	Open
R451	3.98	0.54	3.28	3.28	Open
R452	3.98	0.54	3.28	3.28	Open
R453	3.98	0.54	3.28	3.28	Open
R454	3.98	0.54	3.28	3.28	Open
R455	3.98	0.54	3.28	3.28	Open
R456	3.98	0.54	3.28	3.28	Open
R457	3.98	0.54	3.28	3.28	Open
R458	3.98	0.54	3.28	3.28	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R459	3.98	0.54	3.28	Open	
R460	3.98	0.54	3.28	Open	
R461	3.98	0.54	3.28	Open	
R462	3.98	0.54	3.28	Open	
R463	3.98	0.54	3.28	Open	
R464	3.98	0.54	3.28	Open	
R465	3.98	0.54	3.28	Open	
R466	3.98	0.54	3.28	Open	
R467	3.98	0.54	3.28	Open	
R468	3.98	0.54	3.28	Open	
R469	3.98	0.54	3.28	Open	
R470	3.98	0.54	3.28	Open	
R471	3.98	0.54	3.28	Open	
R472	3.98	0.54	3.28	Open	
R473	3.98	0.54	3.28	Open	
R474	3.98	0.54	3.28	Open	
R475	3.98	0.54	3.28	Open	
R476	3.98	0.54	3.28	Open	
R477	3.98	0.54	3.28	Open	
R478	3.98	0.54	3.28	Open	
R479	3.98	0.54	3.28	Open	
R480	3.98	0.54	3.28	Open	
R481	3.98	0.54	3.28	Open	
R482	3.98	0.54	3.28	Open	
R483	3.98	0.54	3.28	Open	
R484	3.98	0.54	3.28	Open	
R485	3.98	0.54	3.28	Open	
R486	3.98	0.54	3.28	Open	
R487	3.98	0.54	3.28	Open	
R488	3.98	0.54	3.28	Open	
R489	3.98	0.54	3.28	Open	
R490	3.98	0.54	3.28	Open	
R491	3.98	0.54	3.28	Open	
R492	3.98	0.54	3.28	Open	
R493	3.98	0.54	3.28	Open	
R494	3.98	0.54	3.28	Open	
R495	3.98	0.54	3.28	Open	
R496	3.98	0.54	3.28	Open	
R497	3.98	0.54	3.28	Open	
R498	3.98	0.54	3.28	Open	
R499	3.98	0.54	3.28	Open	
R500	3.98	0.54	3.28	Open	
R501	3.98	0.54	3.28	Open	
R502	3.98	0.54	3.28	Open	
R503	3.98	0.54	3.28	Open	
R504	3.98	0.54	3.28	Open	
R505	3.98	0.54	3.28	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R506	3.98	0.54	3.28	Open	
R507	3.98	0.54	3.28	Open	
R508	3.98	0.54	3.28	Open	
R509	3.98	0.54	3.28	Open	
R510	3.98	0.54	3.28	Open	
R511	3.98	0.54	3.28	Open	
R512	3.98	0.54	3.28	Open	
R513	3.98	0.54	3.28	Open	
R514	3.98	0.54	3.28	Open	
R515	3.98	0.54	3.28	Open	
R516	3.98	0.54	3.28	Open	
R517	3.98	0.54	3.28	Open	
R518	3.98	0.54	3.28	Open	
R519	3.98	0.54	3.28	Open	
R520	3.98	0.54	3.28	Open	
R521	3.98	0.54	3.28	Open	
R522	3.98	0.54	3.28	Open	
R523	3.98	0.54	3.28	Open	
R524	3.98	0.54	3.28	Open	
R525	3.98	0.54	3.28	Open	
R526	3.98	0.54	3.28	Open	
R527	3.98	0.54	3.28	Open	
R528	3.98	0.54	3.28	Open	
R529	3.98	0.54	3.28	Open	
R530	3.98	0.54	3.28	Open	
R531	3.98	0.54	3.28	Open	
R532	3.98	0.54	3.28	Open	
R533	3.98	0.54	3.28	Open	
R534	3.98	0.54	3.28	Open	
R535	0.00	0.00	0.00	Open	
R536	0.00	0.00	0.00	Open	
R537	0.00	0.00	0.00	Open	
R538	0.00	0.00	0.00	Open	
R539	0.00	0.00	0.00	Open	
R540	0.00	0.00	0.00	Open	
R541	0.00	0.00	0.00	Open	
R542	0.00	0.00	0.00	Open	
R543	0.00	0.00	0.00	Open	
R544	0.00	0.00	0.00	Open	
R545	0.00	0.00	0.00	Open	
R546	0.00	0.00	0.00	Open	
R547	0.00	0.00	0.00	Open	
R548	0.00	0.00	0.00	Open	
R549	0.00	0.00	0.00	Open	
R550	0.00	0.00	0.00	Open	
R551	0.00	0.00	0.00	Open	
R552	0.00	0.00	0.00	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R553	0.00	0.00	0.00	0.00	Open
R554	0.00	0.00	0.00	0.00	Open
R555	0.00	0.00	0.00	0.00	Open
R556	0.00	0.00	0.00	0.00	Open
R557	0.00	0.00	0.00	0.00	Open
R558	0.00	0.00	0.00	0.00	Open
R559	0.00	0.00	0.00	0.00	Open
R560	0.00	0.00	0.00	0.00	Open
R561	0.00	0.00	0.00	0.00	Open
R562	0.00	0.00	0.00	0.00	Open
R563	0.00	0.00	0.00	0.00	Open
R566	0.00	0.00	0.00	0.00	Open
R567	0.00	0.00	0.00	0.00	Open
R568	0.00	0.00	0.00	0.00	Open
R569	0.00	0.00	0.00	0.00	Open
R570	0.00	0.00	0.00	0.00	Open
R571	0.00	0.00	0.00	0.00	Open
R572	0.00	0.00	0.00	0.00	Open
R573	0.00	0.00	0.00	0.00	Open
R574	0.00	0.00	0.00	0.00	Open
R575	0.00	0.00	0.00	0.00	Open
R576	0.00	0.00	0.00	0.00	Open
R577	0.00	0.00	0.00	0.00	Open
R578	0.00	0.00	0.00	0.00	Open
R579	0.00	0.00	0.00	0.00	Open
R580	0.00	0.00	0.00	0.00	Open
R581	0.00	0.00	0.00	0.00	Open
R582	0.00	0.00	0.00	0.00	Open
R583	0.00	0.00	0.00	0.00	Open
R584	0.00	0.00	0.00	0.00	Open
R585	0.00	0.00	0.00	0.00	Open
R586	0.00	0.00	0.00	0.00	Open
R587	0.00	0.00	0.00	0.00	Open
R588	0.00	0.00	0.00	0.00	Open
R589	0.00	0.00	0.00	0.00	Open
R590	0.00	0.00	0.00	0.00	Open
R591	0.00	0.00	0.00	0.00	Open
R592	0.00	0.00	0.00	0.00	Open
R593	0.00	0.00	0.00	0.00	Open
R594	0.00	0.00	0.00	0.00	Open
R595	0.00	0.00	0.00	0.00	Open
R596	0.00	0.00	0.00	0.00	Open
R597	0.00	0.00	0.00	0.00	Open
R598	0.00	0.00	0.00	0.00	Open
R599	0.00	0.00	0.00	0.00	Open
R600	0.00	0.00	0.00	0.00	Open
R601	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R602	0.00	0.00	0.00	0.00	Open
R603	0.00	0.00	0.00	0.00	Open
R604	0.00	0.00	0.00	0.00	Open
R605	0.00	0.00	0.00	0.00	Open
R606	0.00	0.00	0.00	0.00	Open
R607	0.00	0.00	0.00	0.00	Open
R608	0.00	0.00	0.00	0.00	Open
R609	0.00	0.00	0.00	0.00	Open
R610	0.00	0.00	0.00	0.00	Open
R611	0.00	0.00	0.00	0.00	Open
R612	0.00	0.00	0.00	0.00	Open
R613	0.00	0.00	0.00	0.00	Open
R614	0.00	0.00	0.00	0.00	Open
R615	0.00	0.00	0.00	0.00	Open
R616	0.00	0.00	0.00	0.00	Open
R617	0.00	0.00	0.00	0.00	Open
R618	0.00	0.00	0.00	0.00	Open
R619	0.00	0.00	0.00	0.00	Open
R620	0.00	0.00	0.00	0.00	Open
R621	0.00	0.00	0.00	0.00	Open
R622	0.00	0.00	0.00	0.00	Open
R623	0.00	0.00	0.00	0.00	Open
R624	0.00	0.00	0.00	0.00	Open
R625	0.00	0.00	0.00	0.00	Open
R626	0.00	0.00	0.00	0.00	Open
R627	0.00	0.00	0.00	0.00	Open
R628	0.00	0.00	0.00	0.00	Open
R629	0.00	0.00	0.00	0.00	Open
R630	0.00	0.00	0.00	0.00	Open
R631	0.00	0.00	0.00	0.00	Open
R632	0.00	0.00	0.00	0.00	Open
R633	0.00	0.00	0.00	0.00	Open
R634	0.00	0.00	0.00	0.00	Open
R635	0.00	0.00	0.00	0.00	Open
R636	0.00	0.00	0.00	0.00	Open
R637	0.00	0.00	0.00	0.00	Open
R638	0.00	0.00	0.00	0.00	Open
R639	0.00	0.00	0.00	0.00	Open
R640	0.00	0.00	0.00	0.00	Open
R641	0.00	0.00	0.00	0.00	Open
R642	0.00	0.00	0.00	0.00	Open
R643	0.00	0.00	0.00	0.00	Open
R644	0.00	0.00	0.00	0.00	Open
R645	0.00	0.00	0.00	0.00	Open
R646	0.00	0.00	0.00	0.00	Open
R647	0.00	0.00	0.00	0.00	Open
R648	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R649	0.00	0.00		0.00	Open
R650	0.00	0.00		0.00	Open
R651	0.00	0.00		0.00	Open
R652	0.00	0.00		0.00	Open
R653	0.00	0.00		0.00	Open
R37	4.68	0.08		0.03	Open
P1	0.00	0.00		0.00	Closed Pump
P2	150.00	0.00		-80.00	Open Pump
P3	150.00	0.00		-80.00	Open Pump
P4	150.00	0.00		-80.00	Open Pump

1.6 IPOTESI DI FUNZIONAMENTO D

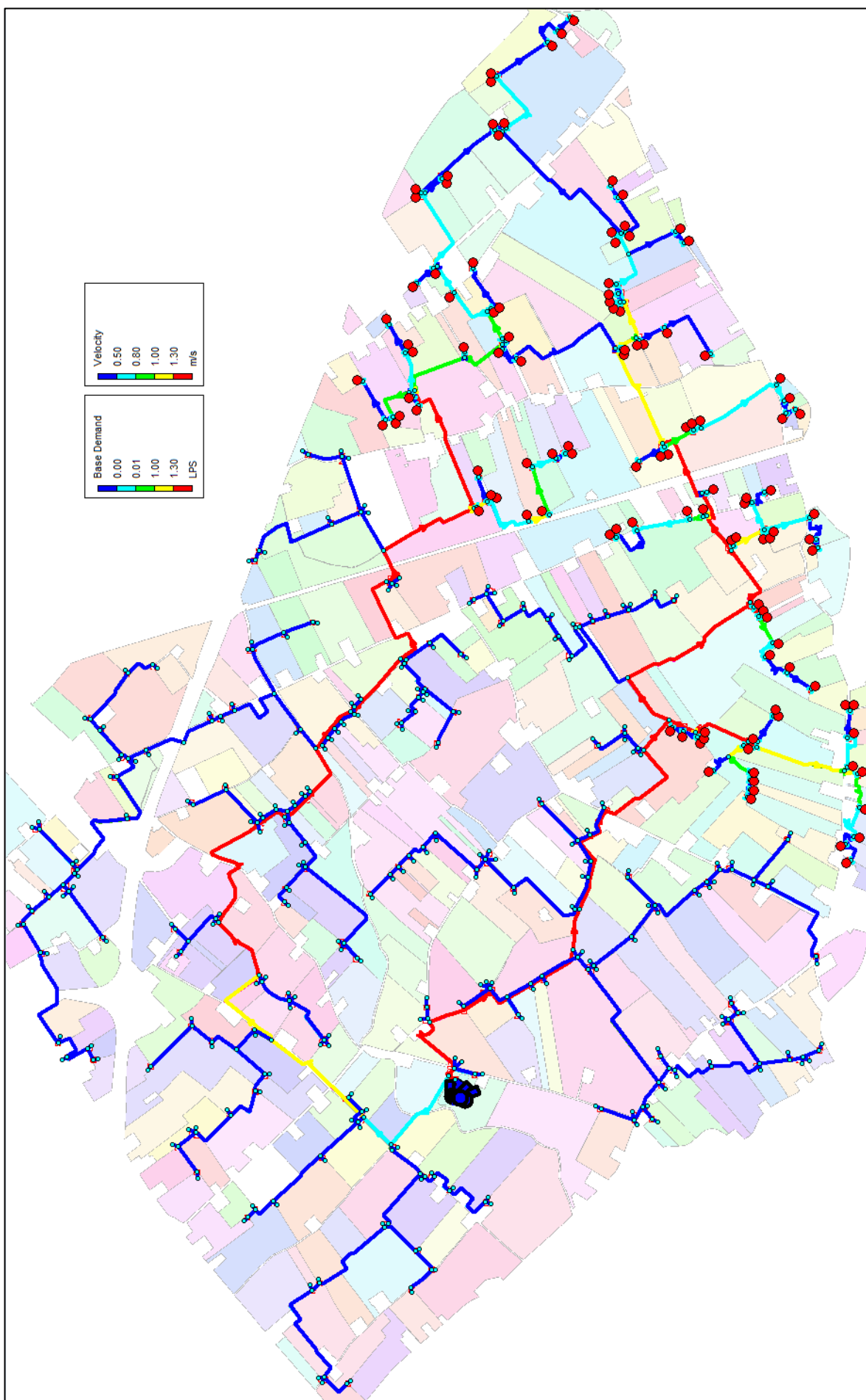


Figura 10 – Risultati della simulazione : base demand nei nodi e velocità nei rami

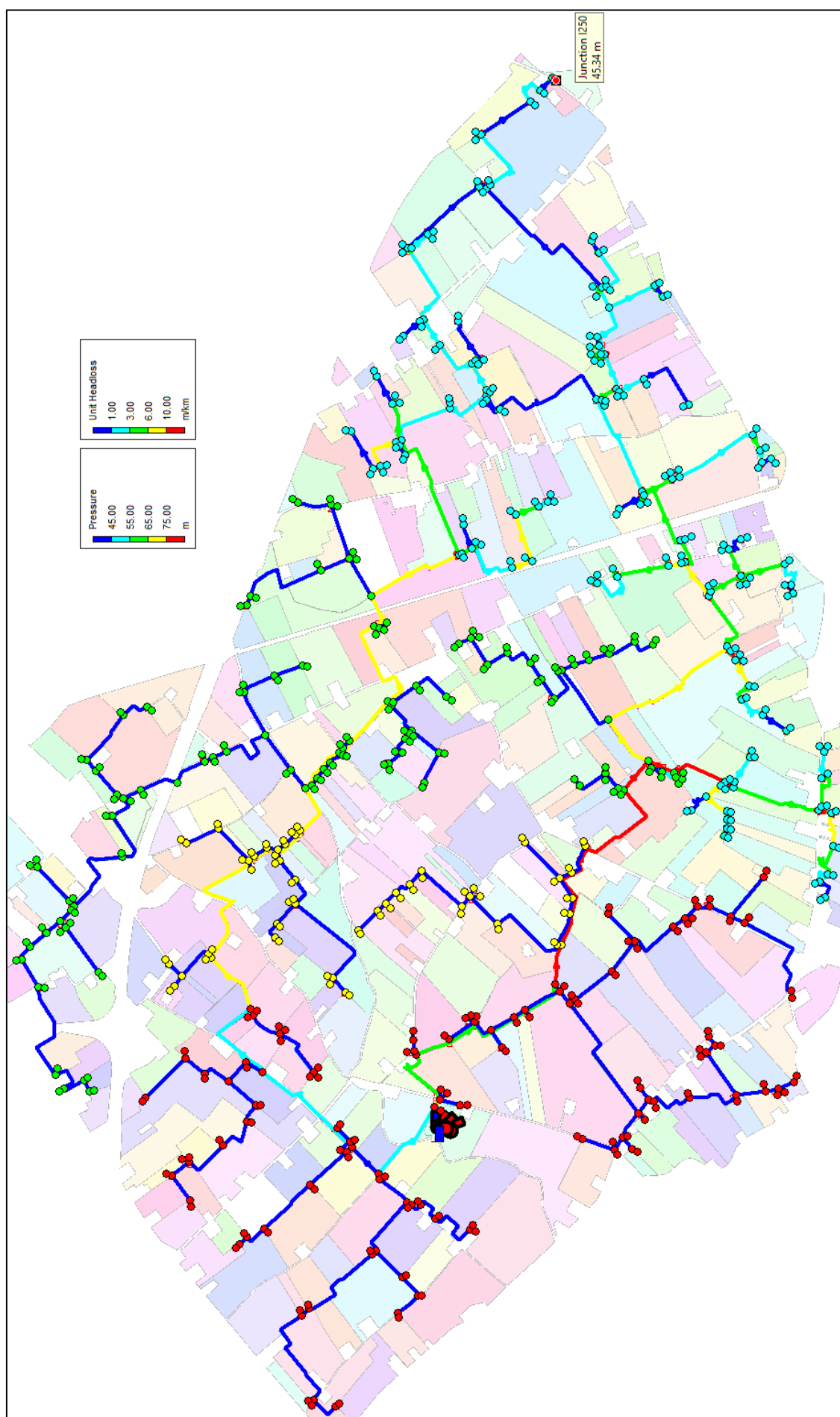


Figura 11 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE BONCELLINO IPOTESI FUNZIONAMENTO D

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
R1	Z1	Z4	376.99	500
R2	Z1	Z3	36.23	500
R3	Z4	Z30	158.87	500
R4	Z30	Z29	511.94	400
R5	Z29	Z28	434.27	400
R6	Z28	Z27	287.35	312.8
R7	Z27	Z26	776.86	312.8
R8	Z26	Z25	386.60	312.8
R9	Z25	Z24	215.34	312.8
R10	Z24	Z23	301.23	312.8
R11	Z23	Z22	483.92	312.8
R12	Z22	Z21	165.41	312.8
R13	Z21	Z20	432.52	312.8
R14	Z20	Z19	589.94	312.8
R15	Z19	Z18	288.16	312.8
R16	Z18	Z17	195.48	312.8
R17	Z17	Z16	639.32	312.8
R18	Z16	Z15	449.15	312.8
R19	Z15	Z14	322.70	312.8
R20	Z14	Z13	121.51	312.8
R21	Z13	Z12	176.09	312.8
R22	Z12	Z11	283.53	400
R23	Z11	Z10	623.06	400
R24	Z10	Z9	252.99	400
R25	Z9	Z8	161.10	400
R26	Z8	Z7	965.02	400
R27	Z7	Z6	174.34	400
R28	Z6	Z2	733.02	500
R29	Z2	Z3	295.18	500
R30	Z17	Z31	20.64	277.6
R31	Z31	Z32	131.11	277.6
R32	Z32	Z33	193.47	277.6
R33	Z33	Z34	130.26	277.6
R34	Z34	Z35	378.35	277.6
R35	Z35	Z36	399.85	277.6
R36	Z36	Z37	45.95	277.6
R39	Z39	Z40	159.80	277.6

Link ID	Start Node	End Node	Length m	Diameter mm
R40	Z40	Z16	93.15	277.6
R41	Z25	Z41	102.26	312.8
R42	Z41	Z42	180.32	312.8
R43	Z42	Z44	302.32	277.6
R44	Z44	Z45	64.21	277.6
R45	Z45	Z46	36.74	277.6
R46	Z46	Z43	156.53	277.6
R47	Z9	Z47	121.61	221.2
R48	Z47	Z48	240.32	221.2
R49	Z4	Z49	24.55	197.4
R50	Z49	Z50	155.79	197.4
R51	Z50	Z51	282.48	197.4
R52	Z52	Z1	29.23	500
R53	Z29	Z53	79.69	197.4
R54	Z53	Z54	111.39	197.4
R55	Z43	Z55	168.27	277.6
R56	Z55	Z56	81.61	277.6
R57	Z56	Z57	122.30	277.6
R58	Z57	Z58	248.24	277.6
R59	Z58	Z59	408.67	277.6
R60	Z48	Z60	42.59	197.4
R61	Z60	Z61	381.34	197.4
R62	Z10	Z62	326.51	197.4
R63	Z6	Z63	37.20	197.4
R64	Z63	Z64	65.06	197.4
R65	Z64	Z65	27.55	197.4
R66	Z65	Z66	197.52	197.4
R67	Z66	Z67	159.32	197.4
R68	Z64	Z68	593.09	197.4
R69	Z68	Z69	73.39	197.4
R71	Z50	Z70	19.58	141
R72	Z70	Z71	52.37	141
R73	Z71	Z72	134.03	141
R74	Z72	Z73	272.89	141
R75	Z51	Z74	21.33	141
R76	Z74	Z75	171.77	141
R77	Z75	Z76	100.49	141
R78	Z76	Z77	113.17	141
R79	Z74	Z78	388.18	141
R80	Z78	Z79	41.68	141
R81	Z79	Z80	492.04	141
R82	Z80	Z81	136.69	141
R83	Z30	Z82	28.20	141
R84	Z82	Z83	210.10	141
R85	Z83	Z84	273.85	141
R86	Z84	Z85	100.05	141
R87	Z85	Z86	44.57	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R88	Z82	Z88	63.06	141
R89	Z88	Z87	83.04	141
R90	Z54	Z94	156.07	141
R91	Z94	Z93	83.07	141
R92	Z93	Z92	187.75	141
R93	Z92	Z91	200.47	141
R94	Z91	Z90	94.69	141
R95	Z90	Z89	132.30	141
R96	Z54	Z95	125.84	141
R97	Z95	Z96	103.76	141
R98	Z96	Z97	240.97	141
R99	Z28	Z98	29.24	141
R100	Z98	Z99	145.56	141
R101	Z99	Z100	238.71	141
R102	Z27	Z101	21.88	141
R103	Z101	Z102	160.47	141
R104	Z102	Z103	54.42	141
R105	Z102	Z104	75.70	141
R106	Z26	Z105	28.55	221.2
R107	Z105	Z106	105.99	197.4
R108	Z106	Z107	133.09	141
R109	Z107	Z110	114.87	141
R110	Z110	Z111	81.12	141
R111	Z107	Z108	472.49	141
R112	Z108	Z109	82.44	141
R113	Z105	Z112	46.30	197.4
R114	Z112	Z113	49.61	141
R115	Z113	Z114	65.69	141
R116	Z114	Z115	30.56	141
R117	Z115	Z116	187.17	141
R118	Z116	Z117	152.14	141
R119	Z112	Z118	39.18	141
R120	Z118	Z119	57.41	141
R121	Z119	Z120	27.68	141
R122	Z42	Z121	207.55	141
R123	Z121	Z122	148.77	141
R124	Z122	Z123	127.14	141
R125	Z124	Z125	129.31	141
R126	Z125	Z126	246.99	141
R127	Z126	Z127	60.88	141
R128	Z127	Z128	133.26	141
R129	Z56	Z128	33.52	141
R130	Z59	Z129	27.91	141
R131	Z129	Z130	199.21	141
R132	Z59	Z131	20.63	277.6
R133	Z131	Z132	65.50	277.6
R134	Z132	Z133	35.33	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R135	Z133	Z134	237.49	141
R136	Z132	Z135	76.63	221.2
R137	Z135	Z136	91.24	221.2
R138	Z136	Z137	70.66	221.2
R139	Z137	Z138	138.52	221.2
R140	Z138	Z139	474.00	221.2
R141	Z139	Z140	161.81	221.2
R142	Z140	Z141	100.63	141
R143	Z141	Z142	51.23	141
R144	Z24	Z143	18.52	141
R145	Z143	Z144	31.51	141
R146	Z144	Z145	39.17	141
R147	Z143	Z146	67.46	141
R148	Z146	Z147	39.15	141
R149	Z147	Z148	44.74	141
R150	Z148	Z149	41.44	141
R151	Z150	Z23	22.15	141
R152	Z150	Z153	17.92	141
R153	Z153	Z151	116.34	141
R154	Z151	Z152	177.89	141
R155	Z150	Z154	144.12	141
R156	Z154	Z155	151.16	141
R157	Z155	Z156	143.30	141
R158	Z154	Z157	14.93	141
R159	Z157	Z158	31.41	141
R160	Z158	Z159	75.87	141
R161	Z159	Z160	73.37	141
R162	Z22	Z161	23.71	141
R163	Z21	Z162	186.92	141
R164	Z162	Z163	129.60	141
R165	Z163	Z164	430.09	141
R166	Z164	Z165	43.79	141
R167	Z162	Z166	242.40	141
R168	Z166	Z167	143.47	141
R169	Z20	Z168	13.72	197.4
R170	Z168	Z169	46.96	197.4
R171	Z169	Z170	108.21	141
R172	Z169	Z171	252.22	197.4
R173	Z171	Z172	90.88	141
R174	Z172	Z173	208.23	141
R175	Z173	Z174	103.57	141
R176	Z174	Z175	41.91	141
R177	Z19	Z176	26.61	197.4
R178	Z176	Z179	22.99	141
R179	Z179	Z180	45.71	141
R180	Z176	Z177	176.45	141
R181	Z177	Z178	131.66	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R182	Z176	Z181	185.32	141
R183	Z181	Z182	35.93	141
R184	Z182	Z183	183.87	141
R185	Z18	Z184	21.45	141
R186	Z31	Z187	17.99	141
R187	Z187	Z186	36.73	141
R188	Z186	Z185	91.70	141
R189	Z32	Z188	17.39	141
R190	Z188	Z189	214.03	141
R191	Z34	Z190	16.51	141
R192	Z190	Z191	91.95	141
R193	Z35	Z192	18.55	141
R194	Z192	Z193	88.12	141
R195	Z37	Z194	21.70	221.2
R196	Z194	Z195	304.20	221.2
R197	Z195	Z196	254.68	221.2
R198	Z196	Z197	154.03	141
R199	Z197	Z198	74.29	141
R200	Z38	Z199	20.82	141
R201	Z199	Z200	198.07	141
R202	Z200	Z201	61.79	141
R203	Z38	Z202	100.55	277.6
R204	Z202	Z39	249.63	277.6
R205	Z202	Z203	216.43	141
R206	Z203	Z204	60.37	141
R207	Z39	Z205	17.80	141
R208	Z205	Z206	36.88	141
R209	Z206	Z207	40.28	141
R210	Z40	Z208	17.66	141
R211	Z208	Z209	115.69	141
R212	Z209	Z210	291.13	141
R213	Z16	Z211	21.66	141
R214	Z15	Z212	16.25	197.4
R215	Z212	Z219	117.93	141
R216	Z212	Z213	141.13	197.4
R217	Z213	Z214	33.48	197.4
R218	Z214	Z215	375.87	197.4
R219	Z215	Z216	70.07	141
R220	Z216	Z217	52.26	141
R221	Z217	Z218	42.37	141
R222	Z14	Z220	20.17	141
R223	Z13	Z221	18.14	141
R224	Z221	Z222	56.74	141
R225	Z222	Z223	222.95	141
R226	Z223	Z224	212.85	141
R227	Z12	Z225	23.45	197.4
R228	Z225	Z226	144.31	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R229	Z226	Z229	194.01	141
R230	Z229	Z230	146.49	141
R231	Z230	Z231	36.13	141
R232	Z226	Z227	119.70	141
R233	Z227	Z228	88.55	141
R234	Z11	Z232	25.97	141
R235	Z232	Z233	42.28	141
R236	Z233	Z234	123.38	141
R237	Z234	Z235	89.55	141
R238	Z235	Z236	117.34	141
R239	Z236	Z237	121.53	141
R240	Z62	Z238	15.70	141
R241	Z238	Z239	163.82	141
R242	Z239	Z240	97.16	141
R243	Z240	Z241	85.25	141
R244	Z241	Z242	144.60	141
R245	Z242	Z243	99.06	141
R246	Z243	Z244	134.07	141
R247	Z244	Z245	58.07	141
R248	Z62	Z246	57.55	141
R249	Z246	Z247	65.50	141
R250	Z247	Z248	90.88	141
R251	Z248	Z249	123.03	141
R252	Z249	Z250	106.83	141
R253	Z47	Z251	21.24	141
R254	Z251	Z252	64.30	141
R255	Z252	Z253	48.96	141
R256	Z48	Z254	22.76	141
R257	Z254	Z255	76.57	141
R258	Z255	Z256	96.29	141
R259	Z255	Z257	109.65	141
R260	Z257	Z260	35.33	141
R261	Z258	Z259	36.27	141
R262	Z259	Z260	33.20	141
R263	Z60	Z261	21.13	141
R264	Z261	Z262	126.38	141
R265	Z61	Z263	21.78	141
R266	Z263	Z264	176.17	141
R267	Z264	Z265	113.99	141
R268	Z61	Z266	56.13	141
R269	Z266	Z267	164.61	141
R270	Z267	Z268	194.42	141
R271	Z268	Z269	80.35	141
R272	Z269	Z270	93.18	141
R273	Z8	Z271	24.62	141
R274	Z271	Z272	80.46	141
R275	Z272	Z273	139.79	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R276	Z7	Z274	17.00	141
R277	Z274	Z275	142.61	141
R278	Z275	Z276	70.95	141
R279	Z276	Z277	100.34	141
R280	Z277	Z280	212.67	141
R281	Z277	Z278	57.63	141
R282	Z278	Z279	145.20	141
R283	Z274	Z281	345.62	197.4
R284	Z281	Z282	164.02	141
R285	Z282	Z283	54.06	141
R286	Z283	Z284	225.21	141
R287	Z284	Z285	78.40	141
R288	Z285	Z286	88.42	141
R289	Z286	Z287	62.84	141
R290	Z287	Z288	47.97	141
R291	Z288	Z289	112.72	141
R292	Z69	Z290	62.74	141
R293	Z69	Z291	21.78	197.4
R294	Z291	Z292	213.78	197.4
R295	Z292	Z293	241.55	197.4
R296	Z293	Z294	220.84	141
R297	Z294	Z295	46.21	141
R298	Z295	Z296	45.28	141
R299	Z293	Z297	127.87	141
R300	Z297	Z298	56.12	141
R301	Z298	Z299	73.08	141
R302	Z67	Z300	164.85	141
R303	Z67	Z301	229.85	141
R304	Z301	Z302	62.81	141
R305	Z302	Z303	72.95	141
R306	Z303	Z304	57.99	141
R307	Z304	Z305	100.75	141
R308	Z305	Z306	217.67	141
R309	Z305	Z307	64.94	141
R310	Z307	Z308	454.50	141
R311	Z68	Z309	122.36	141
R312	Z309	Z312	65.15	141
R313	Z309	Z310	63.04	141
R314	Z310	Z311	144.30	141
R315	Z63	Z313	168.16	141
R316	Z313	Z314	57.79	141
R317	Z314	Z315	112.48	141
R318	Z315	Z316	88.44	141
R319	Z315	Z317	96.05	141
R320	Z317	Z318	132.38	141
R321	Z2	Z319	16.60	141
R322	Z319	Z320	46.93	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R323	Z3	Z321	90.37	141
R326	Z77	I10	5	96.8
R327	Z76	I9	5	96.8
R328	Z75	I8	5	96.8
R329	Z74	I7	5	96.8
R330	Z78	I11	5	96.8
R331	Z79	I12	5	96.8
R332	Z80	I13	5	96.8
R333	Z80	I14	5	96.8
R334	Z81	I15	5	96.8
R335	Z70	I2	5	96.8
R336	Z71	I3	5	96.8
R337	Z72	I4	5	96.8
R338	Z73	I5	5	96.8
R339	Z73	I6	5	96.8
R340	Z49	I1	5	96.8
R341	Z86	I23	5	96.8
R342	Z85	I22	5	96.8
R343	Z84	I21	5	96.8
R344	Z83	I20	5	96.8
R345	Z82	I18	5	96.8
R346	Z82	I19	5	96.8
R347	Z88	I17	5	96.8
R348	Z87	I16	5	96.8
R349	Z53	I24	5	96.8
R350	Z95	I25	5	96.8
R351	Z96	I26	5	96.8
R352	Z97	I27	5	96.8
R353	Z94	I28	5	96.8
R354	Z93	I29	5	96.8
R355	Z92	I30	5	96.8
R356	Z91	I31	5	96.8
R357	Z91	I32	5	96.8
R358	Z90	I33	5	96.8
R359	Z89	I34	5	96.8
R360	Z98	I35	5	96.8
R361	Z98	I36	5	96.8
R362	Z99	I37	5	96.8
R363	Z99	I38	5	96.8
R364	Z99	I39	5	96.8
R365	Z100	I40	5	96.8
R366	Z100	I42	5	96.8
R367	Z100	I41	5	96.8
R368	Z101	I43	5	96.8
R369	Z101	I44	5	96.8
R370	Z104	I45	5	96.8
R371	Z103	I46	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R372	Z109	I47	5	96.8
R373	Z108	I48	5	96.8
R374	Z108	I49	5	96.8
R375	Z111	I50	5	96.8
R376	Z110	I51	5	96.8
R377	Z107	I53	5	96.8
R378	Z107	I52	5	96.8
R379	Z106	I54	5	96.8
R380	Z105	I55	5	96.8
R381	Z113	I59	5	96.8
R382	Z114	I60	5	96.8
R383	Z115	I62	5	96.8
R384	Z115	I61	5	96.8
R385	Z116	I63	5	96.8
R386	Z117	I64	5	96.8
R387	Z118	I56	5	96.8
R388	Z119	I57	5	96.8
R389	Z120	I58	5	96.8
R390	Z142	I65	5	96.8
R391	Z141	I66	5	96.8
R392	Z140	I67	5	96.8
R393	Z139	I68	5	96.8
R394	Z138	I69	5	96.8
R395	Z137	I70	5	96.8
R396	Z136	I71	5	96.8
R397	Z135	I72	5	96.8
R398	Z134	I75	5	96.8
R399	Z133	I74	5	96.8
R400	Z133	I73	5	96.8
R401	Z131	I76	5	96.8
R402	Z129	I77	5	96.8
R403	Z130	I78	5	96.8
R404	Z130	I79	5	96.8
R405	Z58	I80	5	96.8
R406	Z57	I81	5	96.8
R407	Z56	I82	5	96.8
R408	Z128	I83	5	96.8
R409	Z127	I84	5	96.8
R410	Z126	I85	5	96.8
R411	Z125	I86	5	96.8
R412	Z124	I87	5	96.8
R413	Z55	I88	5	96.8
R414	Z46	I89	5	96.8
R415	Z45	I90	5	96.8
R416	Z44	I91	5	96.8
R417	Z121	I92	5	96.8
R418	Z121	I93	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R419	Z122	I94	5	96.8
R420	Z123	I95	5	96.8
R421	Z41	I96	5	96.8
R422	Z149	I97	5	96.8
R423	Z148	I98	5	96.8
R424	Z147	I99	5	96.8
R425	Z146	I100	5	96.8
R426	Z143	I101	5	96.8
R427	Z144	I102	5	96.8
R428	Z145	I103	5	96.8
R429	Z160	I105	5	96.8
R430	Z160	I104	5	96.8
R431	Z159	I106	5	96.8
R432	Z158	I107	5	96.8
R433	Z157	I109	5	96.8
R434	Z157	I108	5	96.8
R435	Z156	I110	5	96.8
R436	Z155	I111	5	96.8
R437	Z150	I112	5	96.8
R438	Z151	I113	5	96.8
R439	Z152	I114	5	96.8
R440	Z161	I115	5	96.8
R441	Z161	I116	5	96.8
R442	Z161	I117	5	96.8
R443	Z165	I118	5	96.8
R444	Z164	I119	5	96.8
R445	Z163	I120	5	96.8
R446	Z162	I122	5	96.8
R447	Z162	I121	5	96.8
R448	Z166	I123	5	96.8
R449	Z166	I124	5	96.8
R450	Z167	I125	5	96.8
R451	Z238	I126	5	96.8
R452	Z239	I127	5	96.8
R453	Z240	I128	5	96.8
R454	Z241	I129	5	96.8
R455	Z242	I130	5	96.8
R456	Z243	I131	5	96.8
R457	Z244	I133	5	96.8
R458	Z244	I132	5	96.8
R459	Z245	I134	5	96.8
R460	Z246	I135	5	96.8
R461	Z247	I136	5	96.8
R462	Z248	I137	5	96.8
R463	Z248	I138	5	96.8
R464	Z249	I139	5	96.8
R465	Z250	I140	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R466	Z271	I142	5	96.8
R467	Z271	I141	5	96.8
R468	Z272	I143	5	96.8
R469	Z272	I144	5	96.8
R470	Z273	I145	5	96.8
R471	Z274	I146	5	96.8
R472	Z275	I147	5	96.8
R473	Z276	I148	5	96.8
R474	Z277	I149	5	96.8
R475	Z280	I150	5	96.8
R476	Z278	I151	5	96.8
R477	Z279	I152	5	96.8
R478	Z281	I153	5	96.8
R479	Z282	I154	5	96.8
R480	Z282	I155	5	96.8
R481	Z282	I156	5	96.8
R482	Z283	I157	5	96.8
R483	Z284	I158	5	96.8
R484	Z285	I159	5	96.8
R485	Z286	I160	5	96.8
R486	Z287	I161	5	96.8
R487	Z288	I162	5	96.8
R488	Z289	I163	5	96.8
R489	Z63	I164	5	96.8
R490	Z65	I165	5	96.8
R491	Z65	I166	5	96.8
R492	Z66	I167	5	96.8
R493	Z67	I169	5	96.8
R494	Z67	I170	5	96.8
R495	Z300	I168	5	96.8
R496	Z301	I171	5	96.8
R497	Z302	I172	5	96.8
R498	Z302	I173	5	96.8
R499	Z303	I174	5	96.8
R500	Z304	I175	5	96.8
R501	Z305	I176	5	96.8
R502	Z306	I177	5	96.8
R503	Z307	I178	5	96.8
R504	Z308	I179	5	96.8
R505	Z311	I180	5	96.8
R506	Z310	I181	5	96.8
R507	Z310	I182	5	96.8
R508	Z309	I183	5	96.8
R509	Z312	I184	5	96.8
R510	Z68	I185	5	96.8
R511	Z290	I186	5	96.8
R512	Z291	I187	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R513	Z292	I188	5	96.8
R514	Z293	I193	5	96.8
R515	Z294	I189	5	96.8
R516	Z294	I190	5	96.8
R517	Z295	I191	5	96.8
R518	Z296	I192	5	96.8
R519	Z297	I194	5	96.8
R520	Z298	I195	5	96.8
R521	Z298	I196	5	96.8
R522	Z299	I197	5	96.8
R523	Z313	I198	5	96.8
R524	Z314	I199	5	96.8
R525	Z316	I200	5	96.8
R526	Z317	I201	5	96.8
R527	Z317	I202	5	96.8
R528	Z317	I203	5	96.8
R529	Z318	I204	5	96.8
R530	Z320	I209	5	96.8
R531	Z319	I208	5	96.8
R532	Z3	I206	5	96.8
R533	Z3	I205	5	96.8
R534	Z321	I207	5	96.8
R535	Z168	I210	5	96.8
R536	Z170	I213	5	96.8
R537	Z169	I212	5	96.8
R538	Z169	I211	5	96.8
R539	Z171	I214	5	96.8
R540	Z172	I215	5	96.8
R541	Z173	I216	5	96.8
R542	Z174	I217	5	96.8
R543	Z175	I218	5	96.8
R544	Z175	I219	5	96.8
R545	Z183	I220	5	96.8
R546	Z182	I221	5	96.8
R547	Z181	I223	5	96.8
R548	Z181	I222	5	96.8
R549	Z179	I225	5	96.8
R550	Z180	I224	5	96.8
R551	Z177	I226	5	96.8
R552	Z177	I227	5	96.8
R553	Z178	I228	5	96.8
R554	Z184	I229	5	96.8
R555	Z186	I231	5	96.8
R556	Z185	I232	5	96.8
R557	Z187	I230	5	96.8
R558	Z188	I233	5	96.8
R559	Z188	I234	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R560	Z189	I235	5	96.8
R561	Z33	I236	5	96.8
R562	Z191	I237	5	96.8
R563	Z190	I238	5	96.8
R566	Z193	I241	5	96.8
R567	Z193	I242	5	96.8
R568	Z192	I240	5	96.8
R569	Z192	I239	5	96.8
R570	Z36	I243	5	96.8
R571	Z36	I244	5	96.8
R572	Z194	I245	5	96.8
R573	Z195	I246	5	96.8
R574	Z195	I247	5	96.8
R575	Z196	I248	5	96.8
R576	Z197	I249	5	96.8
R577	Z198	I250	22.13	96.8
R578	Z204	I251	5	96.8
R579	Z203	I252	5	96.8
R580	Z38	I258	5	96.8
R581	Z38	I257	5	96.8
R582	Z199	I256	5	96.8
R583	Z199	I255	5	96.8
R584	Z200	I254	5	96.8
R585	Z201	I253	5	96.8
R586	Z205	I259	5	96.8
R587	Z205	I260	5	96.8
R588	Z205	I261	5	96.8
R589	Z206	I262	5	96.8
R590	Z207	I263	5	96.8
R591	Z211	I264	5	96.8
R592	Z211	I265	5	96.8
R593	Z208	I267	5	96.8
R594	Z208	I266	5	96.8
R595	Z209	I268	5	96.8
R596	Z210	I269	5	96.8
R597	Z219	I270	5	96.8
R598	Z212	I272	5	96.8
R599	Z212	I271	5	96.8
R600	Z213	I273	5	96.8
R601	Z213	I274	5	96.8
R602	Z214	I275	5	96.8
R603	Z215	I276	5	96.8
R604	Z216	I277	5	96.8
R605	Z217	I278	5	96.8
R606	Z218	I279	5	96.8
R607	Z220	I280	5	96.8
R608	Z224	I281	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R609	Z224	I282	5	96.8
R610	Z223	I283	5	96.8
R611	Z222	I284	5	96.8
R612	Z221	I285	5	96.8
R613	Z225	I286	5	96.8
R614	Z225	I287	5	96.8
R615	Z226	I291	5	96.8
R616	Z226	I292	5	96.8
R617	Z226	I293	5	96.8
R618	Z227	I288	5	96.8
R619	Z227	I289	5	96.8
R620	Z228	I290	5	96.8
R621	Z229	I294	5	96.8
R622	Z230	I295	5	96.8
R623	Z231	I296	5	96.8
R624	Z232	I297	5	96.8
R625	Z233	I298	5	96.8
R626	Z233	I299	5	96.8
R627	Z234	I300	5	96.8
R628	Z235	I301	5	96.8
R629	Z236	I302	5	96.8
R630	Z237	I303	5	96.8
R631	Z265	I304	5	96.8
R632	Z265	I305	5	96.8
R633	Z264	I306	5	96.8
R634	Z263	I307	5	96.8
R635	Z266	I308	5	96.8
R636	Z267	I309	5	96.8
R637	Z268	I310	5	96.8
R638	Z269	I311	5	96.8
R639	Z270	I312	5	96.8
R640	Z260	I313	5	96.8
R641	Z259	I314	5	96.8
R642	Z258	I315	5	96.8
R643	Z257	I316	5	96.8
R644	Z256	I317	5	96.8
R645	Z254	I318	5	96.8
R646	Z261	I319	5	96.8
R647	Z262	I320	5	96.8
R648	Z262	I321	5	96.8
R649	Z253	I322	5	96.8
R650	Z252	I323	5	96.8
R651	Z251	I324	5	96.8
R652	Z251	I325	5	96.8
R653	Z251	I326	5	96.8
R37	Z38	Z37	706.98	277.6
P1	S1	Z52	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
P2	S1	Z52	#N/A	#N/A Pump
P3	S1	Z52	#N/A	#N/A Pump
P4	S1	Z52	#N/A	#N/A Pump

Energy Usage:

Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.84	156.84	0.00
P3	100.00	75.00	0.29	156.84	156.84	0.00
P4	100.00	75.00	0.29	156.84	156.84	0.00

Demand Charge: 0.00
Total Cost: 0.00

Node Results:

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1	0.00	89.75	79.75	0.00
Z2	0.00	88.26	78.26	0.00
Z3	0.00	89.40	79.40	0.00
Z4	0.00	89.34	79.34	0.00
Z6	0.00	85.43	75.43	0.00
Z7	0.00	83.32	73.32	0.00
Z8	0.00	71.64	61.64	0.00
Z9	0.00	69.69	59.69	0.00
Z10	0.00	68.13	58.13	0.00
Z11	0.00	64.30	54.30	0.00
Z12	0.00	62.96	52.96	0.00
Z13	0.00	61.58	51.58	0.00
Z14	0.00	60.86	50.86	0.00
Z15	0.00	59.03	49.03	0.00
Z16	0.00	57.78	47.78	0.00
Z17	0.00	57.78	47.78	0.00
Z18	0.00	58.18	48.18	0.00
Z19	0.00	58.85	48.85	0.00
Z20	0.00	61.58	51.58	0.00
Z21	0.00	65.09	55.09	0.00
Z22	0.00	66.44	56.44	0.00
Z23	0.00	70.37	60.37	0.00
Z24	0.00	72.82	62.82	0.00
Z25	0.00	74.57	64.57	0.00
Z26	0.00	77.71	67.71	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z27	0.00	84.02	74.02	0.00
Z28	0.00	86.35	76.35	0.00
Z29	0.00	87.65	77.65	0.00
Z30	0.00	89.19	79.19	0.00
Z31	0.00	57.58	47.58	0.00
Z32	0.00	57.25	47.25	0.00
Z33	0.00	56.92	46.92	0.00
Z34	0.00	56.73	46.73	0.00
Z35	0.00	56.35	46.35	0.00
Z36	0.00	56.21	46.21	0.00
Z37	0.00	56.20	46.20	0.00
Z38	0.00	56.30	46.30	0.00
Z39	0.00	56.76	46.76	0.00
Z40	0.00	57.22	47.22	0.00
Z41	0.00	74.57	64.57	0.00
Z42	0.00	74.57	64.57	0.00
Z43	0.00	74.57	64.57	0.00
Z44	0.00	74.57	64.57	0.00
Z45	0.00	74.57	64.57	0.00
Z46	0.00	74.57	64.57	0.00
Z47	0.00	67.11	57.11	0.00
Z48	0.00	64.50	54.50	0.00
Z49	0.00	89.34	79.34	0.00
Z50	0.00	89.34	79.34	0.00
Z51	0.00	89.34	79.34	0.00
Z52	0.00	90.00	80.00	0.00
Z53	0.00	87.65	77.65	0.00
Z54	0.00	87.65	77.65	0.00
Z55	0.00	74.57	64.57	0.00
Z56	0.00	74.57	64.57	0.00
Z57	0.00	74.57	64.57	0.00
Z58	0.00	74.57	64.57	0.00
Z59	0.00	74.57	64.57	0.00
Z60	0.00	63.91	53.91	0.00
Z61	0.00	61.90	51.90	0.00
Z62	0.00	68.13	58.13	0.00
Z63	0.00	85.43	75.43	0.00
Z64	0.00	85.43	75.43	0.00
Z65	0.00	85.43	75.43	0.00
Z66	0.00	85.43	75.43	0.00
Z67	0.00	85.43	75.43	0.00
Z68	0.00	85.43	75.43	0.00
Z69	0.00	85.43	75.43	0.00
Z70	0.00	89.34	79.34	0.00
Z71	0.00	89.34	79.34	0.00
Z72	0.00	89.34	79.34	0.00
Z73	0.00	89.34	79.34	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z74	0.00	89.34	79.34	0.00
Z75	0.00	89.34	79.34	0.00
Z76	0.00	89.34	79.34	0.00
Z77	0.00	89.34	79.34	0.00
Z78	0.00	89.34	79.34	0.00
Z79	0.00	89.34	79.34	0.00
Z80	0.00	89.34	79.34	0.00
Z81	0.00	89.34	79.34	0.00
Z82	0.00	89.19	79.19	0.00
Z83	0.00	89.19	79.19	0.00
Z84	0.00	89.19	79.19	0.00
Z85	0.00	89.19	79.19	0.00
Z86	0.00	89.19	79.19	0.00
Z87	0.00	89.19	79.19	0.00
Z88	0.00	89.19	79.19	0.00
Z89	0.00	87.65	77.65	0.00
Z90	0.00	87.65	77.65	0.00
Z91	0.00	87.65	77.65	0.00
Z92	0.00	87.65	77.65	0.00
Z93	0.00	87.65	77.65	0.00
Z94	0.00	87.65	77.65	0.00
Z95	0.00	87.65	77.65	0.00
Z96	0.00	87.65	77.65	0.00
Z97	0.00	87.65	77.65	0.00
Z98	0.00	86.35	76.35	0.00
Z99	0.00	86.35	76.35	0.00
Z100	0.00	86.35	76.35	0.00
Z101	0.00	84.02	74.02	0.00
Z102	0.00	84.02	74.02	0.00
Z103	0.00	84.02	74.02	0.00
Z104	0.00	84.02	74.02	0.00
Z105	0.00	77.71	67.71	0.00
Z106	0.00	77.71	67.71	0.00
Z107	0.00	77.71	67.71	0.00
Z108	0.00	77.71	67.71	0.00
Z109	0.00	77.71	67.71	0.00
Z110	0.00	77.71	67.71	0.00
Z111	0.00	77.71	67.71	0.00
Z112	0.00	77.71	67.71	0.00
Z113	0.00	77.71	67.71	0.00
Z114	0.00	77.71	67.71	0.00
Z115	0.00	77.71	67.71	0.00
Z116	0.00	77.71	67.71	0.00
Z117	0.00	77.71	67.71	0.00
Z118	0.00	77.71	67.71	0.00
Z119	0.00	77.71	67.71	0.00
Z120	0.00	77.71	67.71	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z121	0.00	74.57	64.57	0.00
Z122	0.00	74.57	64.57	0.00
Z123	0.00	74.57	64.57	0.00
Z124	0.00	74.57	64.57	0.00
Z125	0.00	74.57	64.57	0.00
Z126	0.00	74.57	64.57	0.00
Z127	0.00	74.57	64.57	0.00
Z128	0.00	74.57	64.57	0.00
Z129	0.00	74.57	64.57	0.00
Z130	0.00	74.57	64.57	0.00
Z131	0.00	74.57	64.57	0.00
Z132	0.00	74.57	64.57	0.00
Z133	0.00	74.57	64.57	0.00
Z134	0.00	74.57	64.57	0.00
Z135	0.00	74.57	64.57	0.00
Z136	0.00	74.57	64.57	0.00
Z137	0.00	74.57	64.57	0.00
Z138	0.00	74.57	64.57	0.00
Z139	0.00	74.57	64.57	0.00
Z140	0.00	74.57	64.57	0.00
Z141	0.00	74.57	64.57	0.00
Z142	0.00	74.57	64.57	0.00
Z143	0.00	72.82	62.82	0.00
Z144	0.00	72.82	62.82	0.00
Z145	0.00	72.82	62.82	0.00
Z146	0.00	72.82	62.82	0.00
Z147	0.00	72.82	62.82	0.00
Z148	0.00	72.82	62.82	0.00
Z149	0.00	72.82	62.82	0.00
Z150	0.00	70.37	60.37	0.00
Z151	0.00	70.37	60.37	0.00
Z152	0.00	70.37	60.37	0.00
Z153	0.00	70.37	60.37	0.00
Z154	0.00	70.37	60.37	0.00
Z155	0.00	70.37	60.37	0.00
Z156	0.00	70.37	60.37	0.00
Z157	0.00	70.37	60.37	0.00
Z158	0.00	70.37	60.37	0.00
Z159	0.00	70.37	60.37	0.00
Z160	0.00	70.37	60.37	0.00
Z161	0.00	66.44	56.44	0.00
Z162	0.00	65.09	55.09	0.00
Z163	0.00	65.09	55.09	0.00
Z164	0.00	65.09	55.09	0.00
Z165	0.00	65.09	55.09	0.00
Z166	0.00	65.09	55.09	0.00
Z167	0.00	65.09	55.09	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z168	0.00	61.35	51.35	0.00
Z169	0.00	61.10	51.10	0.00
Z170	0.00	61.04	51.04	0.00
Z171	0.00	60.47	50.47	0.00
Z172	0.00	59.63	49.63	0.00
Z173	0.00	58.35	48.35	0.00
Z174	0.00	57.97	47.97	0.00
Z175	0.00	57.90	47.90	0.00
Z176	0.00	58.59	48.59	0.00
Z177	0.00	57.90	47.90	0.00
Z178	0.00	57.83	47.83	0.00
Z179	0.00	58.53	48.53	0.00
Z180	0.00	58.50	48.50	0.00
Z181	0.00	57.45	47.45	0.00
Z182	0.00	57.39	47.39	0.00
Z183	0.00	57.29	47.29	0.00
Z184	0.00	58.17	48.17	0.00
Z185	0.00	57.36	47.36	0.00
Z186	0.00	57.40	47.40	0.00
Z187	0.00	57.47	47.47	0.00
Z188	0.00	57.14	47.14	0.00
Z189	0.00	57.03	47.03	0.00
Z190	0.00	56.68	46.68	0.00
Z191	0.00	56.63	46.63	0.00
Z192	0.00	56.15	46.15	0.00
Z193	0.00	55.99	45.99	0.00
Z194	0.00	56.14	46.14	0.00
Z195	0.00	55.82	45.82	0.00
Z196	0.00	55.72	45.72	0.00
Z197	0.00	55.45	45.45	0.00
Z198	0.00	55.41	45.41	0.00
Z199	0.00	56.09	46.09	0.00
Z200	0.00	55.74	45.74	0.00
Z201	0.00	55.71	45.71	0.00
Z202	0.00	56.40	46.40	0.00
Z203	0.00	56.00	46.00	0.00
Z204	0.00	55.97	45.97	0.00
Z205	0.00	56.46	46.46	0.00
Z206	0.00	56.40	46.40	0.00
Z207	0.00	56.38	46.38	0.00
Z208	0.00	57.03	47.03	0.00
Z209	0.00	56.82	46.82	0.00
Z210	0.00	56.68	46.68	0.00
Z211	0.00	57.72	47.72	0.00
Z212	0.00	58.78	48.78	0.00
Z213	0.00	58.31	48.31	0.00
Z214	0.00	58.25	48.25	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z215	0.00	57.80	47.80	0.00
Z216	0.00	57.55	47.55	0.00
Z217	0.00	57.46	47.46	0.00
Z218	0.00	57.43	47.43	0.00
Z219	0.00	58.72	48.72	0.00
Z220	0.00	60.84	50.84	0.00
Z221	0.00	61.28	51.28	0.00
Z222	0.00	60.93	50.93	0.00
Z223	0.00	60.12	50.12	0.00
Z224	0.00	59.75	49.75	0.00
Z225	0.00	62.60	52.60	0.00
Z226	0.00	61.84	51.84	0.00
Z227	0.00	61.36	51.36	0.00
Z228	0.00	61.31	51.31	0.00
Z229	0.00	61.14	51.14	0.00
Z230	0.00	60.88	50.88	0.00
Z231	0.00	60.86	50.86	0.00
Z232	0.00	63.58	53.58	0.00
Z233	0.00	63.03	53.03	0.00
Z234	0.00	62.28	52.28	0.00
Z235	0.00	61.95	51.95	0.00
Z236	0.00	61.75	51.75	0.00
Z237	0.00	61.68	51.68	0.00
Z238	0.00	68.13	58.13	0.00
Z239	0.00	68.13	58.13	0.00
Z240	0.00	68.13	58.13	0.00
Z241	0.00	68.13	58.13	0.00
Z242	0.00	68.13	58.13	0.00
Z243	0.00	68.13	58.13	0.00
Z244	0.00	68.13	58.13	0.00
Z245	0.00	68.13	58.13	0.00
Z246	0.00	68.13	58.13	0.00
Z247	0.00	68.13	58.13	0.00
Z248	0.00	68.13	58.13	0.00
Z249	0.00	68.13	58.13	0.00
Z250	0.00	68.13	58.13	0.00
Z251	0.00	66.78	56.78	0.00
Z252	0.00	66.67	56.67	0.00
Z253	0.00	66.64	56.64	0.00
Z254	0.00	64.00	54.00	0.00
Z255	0.00	63.30	53.30	0.00
Z256	0.00	63.25	53.25	0.00
Z257	0.00	62.53	52.53	0.00
Z258	0.00	62.41	52.41	0.00
Z259	0.00	62.34	52.34	0.00
Z260	0.00	62.33	52.33	0.00
Z261	0.00	63.78	53.78	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z262	0.00	63.56	53.56	0.00
Z263	0.00	61.68	51.68	0.00
Z264	0.00	61.04	51.04	0.00
Z265	0.00	60.84	50.84	0.00
Z266	0.00	61.24	51.24	0.00
Z267	0.00	60.23	50.23	0.00
Z268	0.00	59.52	49.52	0.00
Z269	0.00	59.38	49.38	0.00
Z270	0.00	59.34	49.34	0.00
Z271	0.00	71.64	61.64	0.00
Z272	0.00	71.64	61.64	0.00
Z273	0.00	71.64	61.64	0.00
Z274	0.00	83.32	73.32	0.00
Z275	0.00	83.32	73.32	0.00
Z276	0.00	83.32	73.32	0.00
Z277	0.00	83.32	73.32	0.00
Z278	0.00	83.32	73.32	0.00
Z279	0.00	83.32	73.32	0.00
Z280	0.00	83.32	73.32	0.00
Z281	0.00	83.32	73.32	0.00
Z282	0.00	83.32	73.32	0.00
Z283	0.00	83.32	73.32	0.00
Z284	0.00	83.32	73.32	0.00
Z285	0.00	83.32	73.32	0.00
Z286	0.00	83.32	73.32	0.00
Z287	0.00	83.32	73.32	0.00
Z288	0.00	83.32	73.32	0.00
Z289	0.00	83.32	73.32	0.00
Z290	0.00	85.43	75.43	0.00
Z291	0.00	85.43	75.43	0.00
Z292	0.00	85.43	75.43	0.00
Z293	0.00	85.43	75.43	0.00
Z294	0.00	85.43	75.43	0.00
Z295	0.00	85.43	75.43	0.00
Z296	0.00	85.43	75.43	0.00
Z297	0.00	85.43	75.43	0.00
Z298	0.00	85.43	75.43	0.00
Z299	0.00	85.43	75.43	0.00
Z300	0.00	85.43	75.43	0.00
Z301	0.00	85.43	75.43	0.00
Z302	0.00	85.43	75.43	0.00
Z303	0.00	85.43	75.43	0.00
Z304	0.00	85.43	75.43	0.00
Z305	0.00	85.43	75.43	0.00
Z306	0.00	85.43	75.43	0.00
Z307	0.00	85.43	75.43	0.00
Z308	0.00	85.43	75.43	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z309	0.00	85.43	75.43	0.00
Z310	0.00	85.43	75.43	0.00
Z311	0.00	85.43	75.43	0.00
Z312	0.00	85.43	75.43	0.00
Z313	0.00	85.43	75.43	0.00
Z314	0.00	85.43	75.43	0.00
Z315	0.00	85.43	75.43	0.00
Z316	0.00	85.43	75.43	0.00
Z317	0.00	85.43	75.43	0.00
Z318	0.00	85.43	75.43	0.00
Z319	0.00	88.26	78.26	0.00
Z320	0.00	88.26	78.26	0.00
Z321	0.00	89.40	79.40	0.00
I1	0.00	89.34	79.34	0.00
I2	0.00	89.34	79.34	0.00
I3	0.00	89.34	79.34	0.00
I4	0.00	89.34	79.34	0.00
I5	0.00	89.34	79.34	0.00
I6	0.00	89.34	79.34	0.00
I7	0.00	89.34	79.34	0.00
I8	0.00	89.34	79.34	0.00
I9	0.00	89.34	79.34	0.00
I10	0.00	89.34	79.34	0.00
I11	0.00	89.34	79.34	0.00
I12	0.00	89.34	79.34	0.00
I13	0.00	89.34	79.34	0.00
I14	0.00	89.34	79.34	0.00
I15	0.00	89.34	79.34	0.00
I23	0.00	89.19	79.19	0.00
I22	0.00	89.19	79.19	0.00
I21	0.00	89.19	79.19	0.00
I20	0.00	89.19	79.19	0.00
I19	0.00	89.19	79.19	0.00
I18	0.00	89.19	79.19	0.00
I17	0.00	89.19	79.19	0.00
I16	0.00	89.19	79.19	0.00
I24	0.00	87.65	77.65	0.00
I25	0.00	87.65	77.65	0.00
I26	0.00	87.65	77.65	0.00
I27	0.00	87.65	77.65	0.00
I28	0.00	87.65	77.65	0.00
I29	0.00	87.65	77.65	0.00
I30	0.00	87.65	77.65	0.00
I31	0.00	87.65	77.65	0.00
I32	0.00	87.65	77.65	0.00
I33	0.00	87.65	77.65	0.00
I34	0.00	87.65	77.65	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I35	0.00	86.35	76.35	0.00
I36	0.00	86.35	76.35	0.00
I37	0.00	86.35	76.35	0.00
I38	0.00	86.35	76.35	0.00
I39	0.00	86.35	76.35	0.00
I40	0.00	86.35	76.35	0.00
I41	0.00	86.35	76.35	0.00
I42	0.00	86.35	76.35	0.00
I43	0.00	84.02	74.02	0.00
I44	0.00	84.02	74.02	0.00
I45	0.00	84.02	74.02	0.00
I46	0.00	84.02	74.02	0.00
I47	0.00	77.71	67.71	0.00
I48	0.00	77.71	67.71	0.00
I49	0.00	77.71	67.71	0.00
I50	0.00	77.71	67.71	0.00
I51	0.00	77.71	67.71	0.00
I52	0.00	77.71	67.71	0.00
I53	0.00	77.71	67.71	0.00
I54	0.00	77.71	67.71	0.00
I55	0.00	77.71	67.71	0.00
I56	0.00	77.71	67.71	0.00
I57	0.00	77.71	67.71	0.00
I58	0.00	77.71	67.71	0.00
I59	0.00	77.71	67.71	0.00
I60	0.00	77.71	67.71	0.00
I61	0.00	77.71	67.71	0.00
I62	0.00	77.71	67.71	0.00
I63	0.00	77.71	67.71	0.00
I64	0.00	77.71	67.71	0.00
I65	0.00	74.57	64.57	0.00
I66	0.00	74.57	64.57	0.00
I67	0.00	74.57	64.57	0.00
I68	0.00	74.57	64.57	0.00
I69	0.00	74.57	64.57	0.00
I70	0.00	74.57	64.57	0.00
I71	0.00	74.57	64.57	0.00
I72	0.00	74.57	64.57	0.00
I73	0.00	74.57	64.57	0.00
I74	0.00	74.57	64.57	0.00
I75	0.00	74.57	64.57	0.00
I76	0.00	74.57	64.57	0.00
I77	0.00	74.57	64.57	0.00
I78	0.00	74.57	64.57	0.00
I79	0.00	74.57	64.57	0.00
I80	0.00	74.57	64.57	0.00
I81	0.00	74.57	64.57	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I82	0.00	74.57	64.57	0.00
I83	0.00	74.57	64.57	0.00
I84	0.00	74.57	64.57	0.00
I85	0.00	74.57	64.57	0.00
I86	0.00	74.57	64.57	0.00
I87	0.00	74.57	64.57	0.00
I88	0.00	74.57	64.57	0.00
I89	0.00	74.57	64.57	0.00
I90	0.00	74.57	64.57	0.00
I91	0.00	74.57	64.57	0.00
I92	0.00	74.57	64.57	0.00
I93	0.00	74.57	64.57	0.00
I94	0.00	74.57	64.57	0.00
I95	0.00	74.57	64.57	0.00
I96	0.00	74.57	64.57	0.00
I97	0.00	72.82	62.82	0.00
I98	0.00	72.82	62.82	0.00
I99	0.00	72.82	62.82	0.00
I100	0.00	72.82	62.82	0.00
I101	0.00	72.82	62.82	0.00
I102	0.00	72.82	62.82	0.00
I103	0.00	72.82	62.82	0.00
I104	0.00	70.37	60.37	0.00
I105	0.00	70.37	60.37	0.00
I106	0.00	70.37	60.37	0.00
I107	0.00	70.37	60.37	0.00
I108	0.00	70.37	60.37	0.00
I109	0.00	70.37	60.37	0.00
I110	0.00	70.37	60.37	0.00
I111	0.00	70.37	60.37	0.00
I112	0.00	70.37	60.37	0.00
I113	0.00	70.37	60.37	0.00
I114	0.00	70.37	60.37	0.00
I115	0.00	66.44	56.44	0.00
I116	0.00	66.44	56.44	0.00
I117	0.00	66.44	56.44	0.00
I118	0.00	65.09	55.09	0.00
I119	0.00	65.09	55.09	0.00
I120	0.00	65.09	55.09	0.00
I121	0.00	65.09	55.09	0.00
I122	0.00	65.09	55.09	0.00
I123	0.00	65.09	55.09	0.00
I124	0.00	65.09	55.09	0.00
I125	0.00	65.09	55.09	0.00
I126	0.00	68.13	58.13	0.00
I127	0.00	68.13	58.13	0.00
I128	0.00	68.13	58.13	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I129	0.00	68.13	58.13	0.00
I130	0.00	68.13	58.13	0.00
I131	0.00	68.13	58.13	0.00
I132	0.00	68.13	58.13	0.00
I133	0.00	68.13	58.13	0.00
I134	0.00	68.13	58.13	0.00
I135	0.00	68.13	58.13	0.00
I136	0.00	68.13	58.13	0.00
I137	0.00	68.13	58.13	0.00
I138	0.00	68.13	58.13	0.00
I139	0.00	68.13	58.13	0.00
I140	0.00	68.13	58.13	0.00
I141	0.00	71.64	61.64	0.00
I142	0.00	71.64	61.64	0.00
I143	0.00	71.64	61.64	0.00
I144	0.00	71.64	61.64	0.00
I145	0.00	71.64	61.64	0.00
I146	0.00	83.32	73.32	0.00
I147	0.00	83.32	73.32	0.00
I148	0.00	83.32	73.32	0.00
I149	0.00	83.32	73.32	0.00
I150	0.00	83.32	73.32	0.00
I151	0.00	83.32	73.32	0.00
I152	0.00	83.32	73.32	0.00
I153	0.00	83.32	73.32	0.00
I154	0.00	83.32	73.32	0.00
I155	0.00	83.32	73.32	0.00
I156	0.00	83.32	73.32	0.00
I157	0.00	83.32	73.32	0.00
I158	0.00	83.32	73.32	0.00
I159	0.00	83.32	73.32	0.00
I160	0.00	83.32	73.32	0.00
I161	0.00	83.32	73.32	0.00
I162	0.00	83.32	73.32	0.00
I163	0.00	83.32	73.32	0.00
I164	0.00	85.43	75.43	0.00
I165	0.00	85.43	75.43	0.00
I166	0.00	85.43	75.43	0.00
I167	0.00	85.43	75.43	0.00
I168	0.00	85.43	75.43	0.00
I169	0.00	85.43	75.43	0.00
I170	0.00	85.43	75.43	0.00
I171	0.00	85.43	75.43	0.00
I172	0.00	85.43	75.43	0.00
I173	0.00	85.43	75.43	0.00
I174	0.00	85.43	75.43	0.00
I175	0.00	85.43	75.43	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I176	0.00	85.43	75.43	0.00
I177	0.00	85.43	75.43	0.00
I178	0.00	85.43	75.43	0.00
I179	0.00	85.43	75.43	0.00
I180	0.00	85.43	75.43	0.00
I181	0.00	85.43	75.43	0.00
I182	0.00	85.43	75.43	0.00
I183	0.00	85.43	75.43	0.00
I184	0.00	85.43	75.43	0.00
I185	0.00	85.43	75.43	0.00
I186	0.00	85.43	75.43	0.00
I187	0.00	85.43	75.43	0.00
I188	0.00	85.43	75.43	0.00
I189	0.00	85.43	75.43	0.00
I190	0.00	85.43	75.43	0.00
I191	0.00	85.43	75.43	0.00
I192	0.00	85.43	75.43	0.00
I193	0.00	85.43	75.43	0.00
I194	0.00	85.43	75.43	0.00
I195	0.00	85.43	75.43	0.00
I196	0.00	85.43	75.43	0.00
I197	0.00	85.43	75.43	0.00
I198	0.00	85.43	75.43	0.00
I199	0.00	85.43	75.43	0.00
I200	0.00	85.43	75.43	0.00
I201	0.00	85.43	75.43	0.00
I202	0.00	85.43	75.43	0.00
I203	0.00	85.43	75.43	0.00
I204	0.00	85.43	75.43	0.00
I205	0.00	89.40	79.40	0.00
I206	0.00	89.40	79.40	0.00
I207	0.00	89.40	79.40	0.00
I208	0.00	88.26	78.26	0.00
I209	0.00	88.26	78.26	0.00
I210	3.85	61.33	51.33	0.00
I211	3.85	61.08	51.08	0.00
I212	3.85	61.08	51.08	0.00
I213	3.85	61.02	51.02	0.00
I214	3.85	60.45	50.45	0.00
I215	3.85	59.61	49.61	0.00
I216	3.85	58.33	48.33	0.00
I217	3.85	57.96	47.96	0.00
I218	3.85	57.88	47.88	0.00
I219	3.85	57.88	47.88	0.00
I220	3.85	57.28	47.28	0.00
I221	3.85	57.37	47.37	0.00
I222	3.85	57.43	47.43	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I223	3.85	57.43	47.43	0.00
I224	3.85	58.49	48.49	0.00
I225	3.85	58.51	48.51	0.00
I226	3.85	57.88	47.88	0.00
I227	3.85	57.88	47.88	0.00
I228	3.85	57.81	47.81	0.00
I229	3.85	58.15	48.15	0.00
I230	3.85	57.45	47.45	0.00
I231	3.85	57.39	47.39	0.00
I232	3.85	57.34	47.34	0.00
I233	3.85	57.12	47.12	0.00
I234	3.85	57.12	47.12	0.00
I235	3.85	57.01	47.01	0.00
I236	3.85	56.90	46.90	0.00
I237	3.85	56.62	46.62	0.00
I238	3.85	56.66	46.66	0.00
I239	3.85	56.13	46.13	0.00
I240	3.85	56.13	46.13	0.00
I241	3.85	55.98	45.98	0.00
I242	3.85	55.98	45.98	0.00
I243	3.85	56.20	46.20	0.00
I244	3.85	56.20	46.20	0.00
I245	3.85	56.12	46.12	0.00
I246	3.85	55.81	45.81	0.00
I247	3.85	55.81	45.81	0.00
I248	3.85	55.70	45.70	0.00
I249	3.85	55.43	45.43	0.00
I250	3.85	55.34	45.34	0.00
I251	3.85	55.96	45.96	0.00
I252	3.85	55.99	45.99	0.00
I253	3.85	55.69	45.69	0.00
I254	3.85	55.72	45.72	0.00
I255	3.85	56.07	46.07	0.00
I256	3.85	56.07	46.07	0.00
I257	3.85	56.29	46.29	0.00
I258	3.85	56.29	46.29	0.00
I259	3.85	56.45	46.45	0.00
I260	3.85	56.45	46.45	0.00
I261	3.85	56.45	46.45	0.00
I262	3.85	56.38	46.38	0.00
I263	3.85	56.36	46.36	0.00
I264	3.85	57.70	47.70	0.00
I265	3.85	57.70	47.70	0.00
I266	3.85	57.01	47.01	0.00
I267	3.85	57.01	47.01	0.00
I268	3.85	56.81	46.81	0.00
I269	3.85	56.66	46.66	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I270	3.85	58.70	48.70	0.00
I271	3.85	58.77	48.77	0.00
I272	3.85	58.77	48.77	0.00
I273	3.85	58.30	48.30	0.00
I274	3.85	58.30	48.30	0.00
I275	3.85	58.24	48.24	0.00
I276	3.85	57.79	47.79	0.00
I277	3.85	57.53	47.53	0.00
I278	3.85	57.44	47.44	0.00
I279	3.85	57.42	47.42	0.00
I280	3.85	60.82	50.82	0.00
I281	3.85	59.73	49.73	0.00
I282	3.85	59.73	49.73	0.00
I283	3.85	60.10	50.10	0.00
I284	3.85	60.91	50.91	0.00
I285	3.85	61.26	51.26	0.00
I286	3.85	62.59	52.59	0.00
I287	3.85	62.59	52.59	0.00
I288	3.85	61.34	51.34	0.00
I289	3.85	61.34	51.34	0.00
I290	3.85	61.30	51.30	0.00
I291	3.85	61.83	51.83	0.00
I292	3.85	61.83	51.83	0.00
I293	3.85	61.83	51.83	0.00
I294	3.85	61.12	51.12	0.00
I295	3.85	60.87	50.87	0.00
I296	3.85	60.85	50.85	0.00
I297	3.85	63.57	53.57	0.00
I298	3.85	63.02	53.02	0.00
I299	3.85	63.02	53.02	0.00
I300	3.85	62.26	52.26	0.00
I301	3.85	61.94	51.94	0.00
I302	3.85	61.73	51.73	0.00
I303	3.85	61.67	51.67	0.00
I304	3.85	60.82	50.82	0.00
I305	3.85	60.82	50.82	0.00
I306	3.85	61.02	51.02	0.00
I307	3.85	61.66	51.66	0.00
I308	3.85	61.22	51.22	0.00
I309	3.85	60.21	50.21	0.00
I310	3.85	59.51	49.51	0.00
I311	3.85	59.37	49.37	0.00
I312	3.85	59.32	49.32	0.00
I313	3.85	62.31	52.31	0.00
I314	3.85	62.33	52.33	0.00
I315	3.85	62.39	52.39	0.00
I316	3.85	62.52	52.52	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I317	3.85	63.23	53.23	0.00
I318	3.85	63.99	53.99	0.00
I319	3.85	63.77	53.77	0.00
I320	3.85	63.55	53.55	0.00
I321	3.85	63.55	53.55	0.00
I322	3.85	66.63	56.63	0.00
I323	3.85	66.65	56.65	0.00
I324	3.85	66.76	56.76	0.00
I325	3.85	66.76	56.76	0.00
I326	3.85	66.76	56.76	0.00
S1	-450.00	10.00	0.00	0.00 Reservoir

Link Results:

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1	147.69	0.75	1.10	Open
R2	302.31	1.54	9.86	Open
R3	147.69	0.75	0.97	Open
R4	147.69	1.18	3.00	Open
R5	147.69	1.18	3.00	Open
R6	147.69	1.92	8.12	Open
R7	147.69	1.92	8.12	Open
R8	147.69	1.92	8.12	Open
R9	147.69	1.92	8.12	Open
R10	147.69	1.92	8.12	Open
R11	147.69	1.92	8.12	Open
R12	147.69	1.92	8.12	Open
R13	147.69	1.92	8.12	Open
R14	109.23	1.42	4.64	Open
R15	74.62	0.97	2.29	Open
R16	70.77	0.92	2.08	Open
R17	1.51	0.02	0.00	Open
R18	-83.08	1.08	2.79	Open
R19	-121.54	1.58	5.65	Open
R20	-125.38	1.63	5.99	Open
R21	-144.61	1.88	7.81	Open
R22	-186.92	1.49	4.73	Open
R23	-213.84	1.70	6.15	Open
R24	-213.84	1.70	6.15	Open
R25	-302.31	2.41	12.11	Open
R26	-302.31	2.41	12.11	Open
R27	-302.31	2.41	12.11	Open
R28	-302.31	1.54	3.86	Open
R29	-302.31	1.54	3.86	Open
R30	69.26	1.14	9.40	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R31	57.72	0.95	2.56	Open
R32	46.18	0.76	1.70	Open
R33	42.33	0.70	1.45	Open
R34	34.64	0.57	1.01	Open
R35	19.26	0.32	0.35	Open
R36	11.56	0.19	0.14	Open
R39	-61.51	1.02	2.88	Open
R40	-76.90	1.27	5.93	Open
R41	0.00	0.00	0.00	Open
R42	0.00	0.00	0.00	Open
R43	0.00	0.00	0.00	Open
R44	0.00	0.00	0.00	Open
R45	0.00	0.00	0.00	Open
R46	0.00	0.00	0.00	Open
R47	88.46	2.30	21.18	Open
R48	69.23	1.80	10.88	Open
R49	0.00	0.00	0.00	Open
R50	0.00	0.00	0.00	Open
R51	0.00	0.00	0.00	Open
R52	450.00	2.29	8.39	Open
R53	0.00	0.00	0.00	Open
R54	0.00	0.00	0.00	Open
R55	0.00	0.00	0.00	Open
R56	0.00	0.00	0.00	Open
R57	0.00	0.00	0.00	Open
R58	0.00	0.00	0.00	Open
R59	0.00	0.00	0.00	Open
R60	46.15	1.51	13.86	Open
R61	34.62	1.13	5.27	Open
R62	0.00	0.00	0.00	Open
R63	0.00	0.00	0.00	Open
R64	0.00	0.00	0.00	Open
R65	0.00	0.00	0.00	Open
R66	0.00	0.00	0.00	Open
R67	0.00	0.00	0.00	Open
R68	0.00	0.00	0.00	Open
R69	0.00	0.00	0.00	Open
R71	0.00	0.00	0.00	Open
R72	0.00	0.00	0.00	Open
R73	0.00	0.00	0.00	Open
R74	0.00	0.00	0.00	Open
R75	0.00	0.00	0.00	Open
R76	0.00	0.00	0.00	Open
R77	0.00	0.00	0.00	Open
R78	0.00	0.00	0.00	Open
R79	0.00	0.00	0.00	Open
R80	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R81	0.00	0.00	0.00	0.00	Open
R82	0.00	0.00	0.00	0.00	Open
R83	0.00	0.00	0.00	0.00	Open
R84	0.00	0.00	0.00	0.00	Open
R85	0.00	0.00	0.00	0.00	Open
R86	0.00	0.00	0.00	0.00	Open
R87	0.00	0.00	0.00	0.00	Open
R88	0.00	0.00	0.00	0.00	Open
R89	0.00	0.00	0.00	0.00	Open
R90	0.00	0.00	0.00	0.00	Open
R91	0.00	0.00	0.00	0.00	Open
R92	0.00	0.00	0.00	0.00	Open
R93	0.00	0.00	0.00	0.00	Open
R94	0.00	0.00	0.00	0.00	Open
R95	0.00	0.00	0.00	0.00	Open
R96	0.00	0.00	0.00	0.00	Open
R97	0.00	0.00	0.00	0.00	Open
R98	0.00	0.00	0.00	0.00	Open
R99	0.00	0.00	0.00	0.00	Open
R100	0.00	0.00	0.00	0.00	Open
R101	0.00	0.00	0.00	0.00	Open
R102	0.00	0.00	0.00	0.00	Open
R103	0.00	0.00	0.00	0.00	Open
R104	0.00	0.00	0.00	0.00	Open
R105	0.00	0.00	0.00	0.00	Open
R106	0.00	0.00	0.00	0.00	Open
R107	0.00	0.00	0.00	0.00	Open
R108	0.00	0.00	0.00	0.00	Open
R109	0.00	0.00	0.00	0.00	Open
R110	0.00	0.00	0.00	0.00	Open
R111	0.00	0.00	0.00	0.00	Open
R112	0.00	0.00	0.00	0.00	Open
R113	0.00	0.00	0.00	0.00	Open
R114	0.00	0.00	0.00	0.00	Open
R115	0.00	0.00	0.00	0.00	Open
R116	0.00	0.00	0.00	0.00	Open
R117	0.00	0.00	0.00	0.00	Open
R118	0.00	0.00	0.00	0.00	Open
R119	0.00	0.00	0.00	0.00	Open
R120	0.00	0.00	0.00	0.00	Open
R121	0.00	0.00	0.00	0.00	Open
R122	0.00	0.00	0.00	0.00	Open
R123	0.00	0.00	0.00	0.00	Open
R124	0.00	0.00	0.00	0.00	Open
R125	0.00	0.00	0.00	0.00	Open
R126	0.00	0.00	0.00	0.00	Open
R127	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R128	0.00	0.00	0.00	0.00	Open
R129	0.00	0.00	0.00	0.00	Open
R130	0.00	0.00	0.00	0.00	Open
R131	0.00	0.00	0.00	0.00	Open
R132	0.00	0.00	0.00	0.00	Open
R133	0.00	0.00	0.00	0.00	Open
R134	0.00	0.00	0.00	0.00	Open
R135	0.00	0.00	0.00	0.00	Open
R136	0.00	0.00	0.00	0.00	Open
R137	0.00	0.00	0.00	0.00	Open
R138	0.00	0.00	0.00	0.00	Open
R139	0.00	0.00	0.00	0.00	Open
R140	0.00	0.00	0.00	0.00	Open
R141	0.00	0.00	0.00	0.00	Open
R142	0.00	0.00	0.00	0.00	Open
R143	0.00	0.00	0.00	0.00	Open
R144	0.00	0.00	0.00	0.00	Open
R145	0.00	0.00	0.00	0.00	Open
R146	0.00	0.00	0.00	0.00	Open
R147	0.00	0.00	0.00	0.00	Open
R148	0.00	0.00	0.00	0.00	Open
R149	0.00	0.00	0.00	0.00	Open
R150	0.00	0.00	0.00	0.00	Open
R151	0.00	0.00	0.00	0.00	Open
R152	0.00	0.00	0.00	0.00	Open
R153	0.00	0.00	0.00	0.00	Open
R154	0.00	0.00	0.00	0.00	Open
R155	0.00	0.00	0.00	0.00	Open
R156	0.00	0.00	0.00	0.00	Open
R157	0.00	0.00	0.00	0.00	Open
R158	0.00	0.00	0.00	0.00	Open
R159	0.00	0.00	0.00	0.00	Open
R160	0.00	0.00	0.00	0.00	Open
R161	0.00	0.00	0.00	0.00	Open
R162	0.00	0.00	0.00	0.00	Open
R163	0.00	0.00	0.00	0.00	Open
R164	0.00	0.00	0.00	0.00	Open
R165	0.00	0.00	0.00	0.00	Open
R166	0.00	0.00	0.00	0.00	Open
R167	0.00	0.00	0.00	0.00	Open
R168	0.00	0.00	0.00	0.00	Open
R169	38.46	1.26	16.95	16.95	Open
R170	34.62	1.13	5.27	5.27	Open
R171	3.85	0.25	0.56	0.56	Open
R172	23.08	0.75	2.51	2.51	Open
R173	19.23	1.23	9.25	9.25	Open
R174	15.38	0.99	6.14	6.14	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R175	11.54	0.74		3.63	Open
R176	7.69	0.49		1.75	Open
R177	34.62	1.13		9.68	Open
R178	7.69	0.49		2.71	Open
R179	3.85	0.25		0.51	Open
R180	11.54	0.74		3.92	Open
R181	3.85	0.25		0.51	Open
R182	15.38	0.99		6.14	Open
R183	7.69	0.49		1.75	Open
R184	3.85	0.25		0.51	Open
R185	3.85	0.25		0.76	Open
R186	11.54	0.74		6.42	Open
R187	7.69	0.49		1.75	Open
R188	3.85	0.25		0.51	Open
R189	11.54	0.74		6.51	Open
R190	3.85	0.25		0.51	Open
R191	7.69	0.49		3.09	Open
R192	3.85	0.25		0.51	Open
R193	15.38	0.99		10.94	Open
R194	7.69	0.49		1.75	Open
R195	23.08	0.60		2.97	Open
R196	19.23	0.50		1.04	Open
R197	11.54	0.30		0.41	Open
R198	7.69	0.49		1.75	Open
R199	3.85	0.25		0.51	Open
R200	15.38	0.99		10.42	Open
R201	7.69	0.49		1.75	Open
R202	3.85	0.25		0.51	Open
R203	-34.59	0.57		1.00	Open
R204	-42.28	0.70		1.45	Open
R205	7.69	0.49		1.85	Open
R206	3.85	0.25		0.51	Open
R207	19.23	1.23		17.06	Open
R208	7.69	0.49		1.75	Open
R209	3.85	0.25		0.51	Open
R210	15.38	0.99		11.18	Open
R211	7.69	0.49		1.75	Open
R212	3.85	0.25		0.51	Open
R213	7.69	0.49		2.77	Open
R214	38.46	1.26		15.31	Open
R215	3.85	0.25		0.55	Open
R216	26.92	0.88		3.32	Open
R217	19.23	0.63		1.80	Open
R218	15.38	0.50		1.20	Open
R219	11.54	0.74		3.63	Open
R220	7.69	0.49		1.75	Open
R221	3.85	0.25		0.51	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R222	3.85	0.25	0.78	Open	
R223	19.23	1.23	16.91	Open	
R224	15.38	0.99	6.14	Open	
R225	11.54	0.74	3.63	Open	
R226	7.69	0.49	1.75	Open	
R227	42.31	1.38	15.10	Open	
R228	34.62	1.13	5.27	Open	
R229	11.54	0.74	3.63	Open	
R230	7.69	0.49	1.75	Open	
R231	3.85	0.25	0.51	Open	
R232	11.54	0.74	4.05	Open	
R233	3.85	0.25	0.51	Open	
R234	26.92	1.72	27.70	Open	
R235	23.08	1.48	12.94	Open	
R236	15.38	0.99	6.14	Open	
R237	11.54	0.74	3.63	Open	
R238	7.69	0.49	1.75	Open	
R239	3.85	0.25	0.51	Open	
R240	0.00	0.00	0.00	Open	
R241	0.00	0.00	0.00	Open	
R242	0.00	0.00	0.00	Open	
R243	0.00	0.00	0.00	Open	
R244	0.00	0.00	0.00	Open	
R245	0.00	0.00	0.00	Open	
R246	0.00	0.00	0.00	Open	
R247	0.00	0.00	0.00	Open	
R248	0.00	0.00	0.00	Open	
R249	0.00	0.00	0.00	Open	
R250	0.00	0.00	0.00	Open	
R251	0.00	0.00	0.00	Open	
R252	0.00	0.00	0.00	Open	
R253	19.23	1.23	15.79	Open	
R254	7.69	0.49	1.75	Open	
R255	3.85	0.25	0.51	Open	
R256	23.08	1.48	21.73	Open	
R257	19.23	1.23	9.25	Open	
R258	3.85	0.25	0.51	Open	
R259	15.38	0.99	6.95	Open	
R260	11.54	0.74	3.63	Open	
R261	7.69	0.49	1.75	Open	
R262	3.85	0.25	0.51	Open	
R263	11.54	0.74	6.00	Open	
R264	7.69	0.49	1.75	Open	
R265	15.38	0.99	10.23	Open	
R266	11.54	0.74	3.63	Open	
R267	7.69	0.49	1.75	Open	
R268	19.23	1.23	11.72	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R269	15.38	0.99		6.14	Open
R270	11.54	0.74		3.63	Open
R271	7.69	0.49		1.75	Open
R272	3.85	0.25		0.51	Open
R273	0.00	0.00		0.00	Open
R274	0.00	0.00		0.00	Open
R275	0.00	0.00		0.00	Open
R276	0.00	0.00		0.00	Open
R277	0.00	0.00		0.00	Open
R278	0.00	0.00		0.00	Open
R279	0.00	0.00		0.00	Open
R280	0.00	0.00		0.00	Open
R281	0.00	0.00		0.00	Open
R282	0.00	0.00		0.00	Open
R283	0.00	0.00		0.00	Open
R284	0.00	0.00		0.00	Open
R285	0.00	0.00		0.00	Open
R286	0.00	0.00		0.00	Open
R287	0.00	0.00		0.00	Open
R288	0.00	0.00		0.00	Open
R289	0.00	0.00		0.00	Open
R290	0.00	0.00		0.00	Open
R291	0.00	0.00		0.00	Open
R292	0.00	0.00		0.00	Open
R293	0.00	0.00		0.00	Open
R294	0.00	0.00		0.00	Open
R295	0.00	0.00		0.00	Open
R296	0.00	0.00		0.00	Open
R297	0.00	0.00		0.00	Open
R298	0.00	0.00		0.00	Open
R299	0.00	0.00		0.00	Open
R300	0.00	0.00		0.00	Open
R301	0.00	0.00		0.00	Open
R302	0.00	0.00		0.00	Open
R303	0.00	0.00		0.00	Open
R304	0.00	0.00		0.00	Open
R305	0.00	0.00		0.00	Open
R306	0.00	0.00		0.00	Open
R307	0.00	0.00		0.00	Open
R308	0.00	0.00		0.00	Open
R309	0.00	0.00		0.00	Open
R310	0.00	0.00		0.00	Open
R311	0.00	0.00		0.00	Open
R312	0.00	0.00		0.00	Open
R313	0.00	0.00		0.00	Open
R314	0.00	0.00		0.00	Open
R315	0.00	0.00		0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R316	0.00	0.00		0.00	Open
R317	0.00	0.00		0.00	Open
R318	0.00	0.00		0.00	Open
R319	0.00	0.00		0.00	Open
R320	0.00	0.00		0.00	Open
R321	0.00	0.00		0.00	Open
R322	0.00	0.00		0.00	Open
R323	0.00	0.00		0.00	Open
R326	0.00	0.00		0.00	Open
R327	0.00	0.00		0.00	Open
R328	0.00	0.00		0.00	Open
R329	0.00	0.00		0.00	Open
R330	0.00	0.00		0.00	Open
R331	0.00	0.00		0.00	Open
R332	0.00	0.00		0.00	Open
R333	0.00	0.00		0.00	Open
R334	0.00	0.00		0.00	Open
R335	0.00	0.00		0.00	Open
R336	0.00	0.00		0.00	Open
R337	0.00	0.00		0.00	Open
R338	0.00	0.00		0.00	Open
R339	0.00	0.00		0.00	Open
R340	0.00	0.00		0.00	Open
R341	0.00	0.00		0.00	Open
R342	0.00	0.00		0.00	Open
R343	0.00	0.00		0.00	Open
R344	0.00	0.00		0.00	Open
R345	0.00	0.00		0.00	Open
R346	0.00	0.00		0.00	Open
R347	0.00	0.00		0.00	Open
R348	0.00	0.00		0.00	Open
R349	0.00	0.00		0.00	Open
R350	0.00	0.00		0.00	Open
R351	0.00	0.00		0.00	Open
R352	0.00	0.00		0.00	Open
R353	0.00	0.00		0.00	Open
R354	0.00	0.00		0.00	Open
R355	0.00	0.00		0.00	Open
R356	0.00	0.00		0.00	Open
R357	0.00	0.00		0.00	Open
R358	0.00	0.00		0.00	Open
R359	0.00	0.00		0.00	Open
R360	0.00	0.00		0.00	Open
R361	0.00	0.00		0.00	Open
R362	0.00	0.00		0.00	Open
R363	0.00	0.00		0.00	Open
R364	0.00	0.00		0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R365	0.00	0.00	0.00	0.00	Open
R366	0.00	0.00	0.00	0.00	Open
R367	0.00	0.00	0.00	0.00	Open
R368	0.00	0.00	0.00	0.00	Open
R369	0.00	0.00	0.00	0.00	Open
R370	0.00	0.00	0.00	0.00	Open
R371	0.00	0.00	0.00	0.00	Open
R372	0.00	0.00	0.00	0.00	Open
R373	0.00	0.00	0.00	0.00	Open
R374	0.00	0.00	0.00	0.00	Open
R375	0.00	0.00	0.00	0.00	Open
R376	0.00	0.00	0.00	0.00	Open
R377	0.00	0.00	0.00	0.00	Open
R378	0.00	0.00	0.00	0.00	Open
R379	0.00	0.00	0.00	0.00	Open
R380	0.00	0.00	0.00	0.00	Open
R381	0.00	0.00	0.00	0.00	Open
R382	0.00	0.00	0.00	0.00	Open
R383	0.00	0.00	0.00	0.00	Open
R384	0.00	0.00	0.00	0.00	Open
R385	0.00	0.00	0.00	0.00	Open
R386	0.00	0.00	0.00	0.00	Open
R387	0.00	0.00	0.00	0.00	Open
R388	0.00	0.00	0.00	0.00	Open
R389	0.00	0.00	0.00	0.00	Open
R390	0.00	0.00	0.00	0.00	Open
R391	0.00	0.00	0.00	0.00	Open
R392	0.00	0.00	0.00	0.00	Open
R393	0.00	0.00	0.00	0.00	Open
R394	0.00	0.00	0.00	0.00	Open
R395	0.00	0.00	0.00	0.00	Open
R396	0.00	0.00	0.00	0.00	Open
R397	0.00	0.00	0.00	0.00	Open
R398	0.00	0.00	0.00	0.00	Open
R399	0.00	0.00	0.00	0.00	Open
R400	0.00	0.00	0.00	0.00	Open
R401	0.00	0.00	0.00	0.00	Open
R402	0.00	0.00	0.00	0.00	Open
R403	0.00	0.00	0.00	0.00	Open
R404	0.00	0.00	0.00	0.00	Open
R405	0.00	0.00	0.00	0.00	Open
R406	0.00	0.00	0.00	0.00	Open
R407	0.00	0.00	0.00	0.00	Open
R408	0.00	0.00	0.00	0.00	Open
R409	0.00	0.00	0.00	0.00	Open
R410	0.00	0.00	0.00	0.00	Open
R411	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R412	0.00	0.00	0.00	0.00	Open
R413	0.00	0.00	0.00	0.00	Open
R414	0.00	0.00	0.00	0.00	Open
R415	0.00	0.00	0.00	0.00	Open
R416	0.00	0.00	0.00	0.00	Open
R417	0.00	0.00	0.00	0.00	Open
R418	0.00	0.00	0.00	0.00	Open
R419	0.00	0.00	0.00	0.00	Open
R420	0.00	0.00	0.00	0.00	Open
R421	0.00	0.00	0.00	0.00	Open
R422	0.00	0.00	0.00	0.00	Open
R423	0.00	0.00	0.00	0.00	Open
R424	0.00	0.00	0.00	0.00	Open
R425	0.00	0.00	0.00	0.00	Open
R426	0.00	0.00	0.00	0.00	Open
R427	0.00	0.00	0.00	0.00	Open
R428	0.00	0.00	0.00	0.00	Open
R429	0.00	0.00	0.00	0.00	Open
R430	0.00	0.00	0.00	0.00	Open
R431	0.00	0.00	0.00	0.00	Open
R432	0.00	0.00	0.00	0.00	Open
R433	0.00	0.00	0.00	0.00	Open
R434	0.00	0.00	0.00	0.00	Open
R435	0.00	0.00	0.00	0.00	Open
R436	0.00	0.00	0.00	0.00	Open
R437	0.00	0.00	0.00	0.00	Open
R438	0.00	0.00	0.00	0.00	Open
R439	0.00	0.00	0.00	0.00	Open
R440	0.00	0.00	0.00	0.00	Open
R441	0.00	0.00	0.00	0.00	Open
R442	0.00	0.00	0.00	0.00	Open
R443	0.00	0.00	0.00	0.00	Open
R444	0.00	0.00	0.00	0.00	Open
R445	0.00	0.00	0.00	0.00	Open
R446	0.00	0.00	0.00	0.00	Open
R447	0.00	0.00	0.00	0.00	Open
R448	0.00	0.00	0.00	0.00	Open
R449	0.00	0.00	0.00	0.00	Open
R450	0.00	0.00	0.00	0.00	Open
R451	0.00	0.00	0.00	0.00	Open
R452	0.00	0.00	0.00	0.00	Open
R453	0.00	0.00	0.00	0.00	Open
R454	0.00	0.00	0.00	0.00	Open
R455	0.00	0.00	0.00	0.00	Open
R456	0.00	0.00	0.00	0.00	Open
R457	0.00	0.00	0.00	0.00	Open
R458	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R459	0.00	0.00	0.00	0.00	Open
R460	0.00	0.00	0.00	0.00	Open
R461	0.00	0.00	0.00	0.00	Open
R462	0.00	0.00	0.00	0.00	Open
R463	0.00	0.00	0.00	0.00	Open
R464	0.00	0.00	0.00	0.00	Open
R465	0.00	0.00	0.00	0.00	Open
R466	0.00	0.00	0.00	0.00	Open
R467	0.00	0.00	0.00	0.00	Open
R468	0.00	0.00	0.00	0.00	Open
R469	0.00	0.00	0.00	0.00	Open
R470	0.00	0.00	0.00	0.00	Open
R471	0.00	0.00	0.00	0.00	Open
R472	0.00	0.00	0.00	0.00	Open
R473	0.00	0.00	0.00	0.00	Open
R474	0.00	0.00	0.00	0.00	Open
R475	0.00	0.00	0.00	0.00	Open
R476	0.00	0.00	0.00	0.00	Open
R477	0.00	0.00	0.00	0.00	Open
R478	0.00	0.00	0.00	0.00	Open
R479	0.00	0.00	0.00	0.00	Open
R480	0.00	0.00	0.00	0.00	Open
R481	0.00	0.00	0.00	0.00	Open
R482	0.00	0.00	0.00	0.00	Open
R483	0.00	0.00	0.00	0.00	Open
R484	0.00	0.00	0.00	0.00	Open
R485	0.00	0.00	0.00	0.00	Open
R486	0.00	0.00	0.00	0.00	Open
R487	0.00	0.00	0.00	0.00	Open
R488	0.00	0.00	0.00	0.00	Open
R489	0.00	0.00	0.00	0.00	Open
R490	0.00	0.00	0.00	0.00	Open
R491	0.00	0.00	0.00	0.00	Open
R492	0.00	0.00	0.00	0.00	Open
R493	0.00	0.00	0.00	0.00	Open
R494	0.00	0.00	0.00	0.00	Open
R495	0.00	0.00	0.00	0.00	Open
R496	0.00	0.00	0.00	0.00	Open
R497	0.00	0.00	0.00	0.00	Open
R498	0.00	0.00	0.00	0.00	Open
R499	0.00	0.00	0.00	0.00	Open
R500	0.00	0.00	0.00	0.00	Open
R501	0.00	0.00	0.00	0.00	Open
R502	0.00	0.00	0.00	0.00	Open
R503	0.00	0.00	0.00	0.00	Open
R504	0.00	0.00	0.00	0.00	Open
R505	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R506	0.00	0.00	0.00	0.00	Open
R507	0.00	0.00	0.00	0.00	Open
R508	0.00	0.00	0.00	0.00	Open
R509	0.00	0.00	0.00	0.00	Open
R510	0.00	0.00	0.00	0.00	Open
R511	0.00	0.00	0.00	0.00	Open
R512	0.00	0.00	0.00	0.00	Open
R513	0.00	0.00	0.00	0.00	Open
R514	0.00	0.00	0.00	0.00	Open
R515	0.00	0.00	0.00	0.00	Open
R516	0.00	0.00	0.00	0.00	Open
R517	0.00	0.00	0.00	0.00	Open
R518	0.00	0.00	0.00	0.00	Open
R519	0.00	0.00	0.00	0.00	Open
R520	0.00	0.00	0.00	0.00	Open
R521	0.00	0.00	0.00	0.00	Open
R522	0.00	0.00	0.00	0.00	Open
R523	0.00	0.00	0.00	0.00	Open
R524	0.00	0.00	0.00	0.00	Open
R525	0.00	0.00	0.00	0.00	Open
R526	0.00	0.00	0.00	0.00	Open
R527	0.00	0.00	0.00	0.00	Open
R528	0.00	0.00	0.00	0.00	Open
R529	0.00	0.00	0.00	0.00	Open
R530	0.00	0.00	0.00	0.00	Open
R531	0.00	0.00	0.00	0.00	Open
R532	0.00	0.00	0.00	0.00	Open
R533	0.00	0.00	0.00	0.00	Open
R534	0.00	0.00	0.00	0.00	Open
R535	3.85	0.52	3.08	3.08	Open
R536	3.85	0.52	3.08	3.08	Open
R537	3.85	0.52	3.08	3.08	Open
R538	3.85	0.52	3.08	3.08	Open
R539	3.85	0.52	3.08	3.08	Open
R540	3.85	0.52	3.08	3.08	Open
R541	3.85	0.52	3.08	3.08	Open
R542	3.85	0.52	3.08	3.08	Open
R543	3.85	0.52	3.08	3.08	Open
R544	3.85	0.52	3.08	3.08	Open
R545	3.85	0.52	3.08	3.08	Open
R546	3.85	0.52	3.08	3.08	Open
R547	3.85	0.52	3.08	3.08	Open
R548	3.85	0.52	3.08	3.08	Open
R549	3.85	0.52	3.08	3.08	Open
R550	3.85	0.52	3.08	3.08	Open
R551	3.85	0.52	3.08	3.08	Open
R552	3.85	0.52	3.08	3.08	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R553	3.85	0.52	3.08	Open	
R554	3.85	0.52	3.08	Open	
R555	3.85	0.52	3.08	Open	
R556	3.85	0.52	3.08	Open	
R557	3.85	0.52	3.08	Open	
R558	3.85	0.52	3.08	Open	
R559	3.85	0.52	3.08	Open	
R560	3.85	0.52	3.08	Open	
R561	3.85	0.52	3.08	Open	
R562	3.85	0.52	3.08	Open	
R563	3.85	0.52	3.08	Open	
R566	3.85	0.52	3.08	Open	
R567	3.85	0.52	3.08	Open	
R568	3.85	0.52	3.08	Open	
R569	3.85	0.52	3.08	Open	
R570	3.85	0.52	3.08	Open	
R571	3.85	0.52	3.08	Open	
R572	3.85	0.52	3.08	Open	
R573	3.85	0.52	3.08	Open	
R574	3.85	0.52	3.08	Open	
R575	3.85	0.52	3.08	Open	
R576	3.85	0.52	3.08	Open	
R577	3.85	0.52	3.08	Open	
R578	3.85	0.52	3.08	Open	
R579	3.85	0.52	3.08	Open	
R580	3.85	0.52	3.08	Open	
R581	3.85	0.52	3.08	Open	
R582	3.85	0.52	3.08	Open	
R583	3.85	0.52	3.08	Open	
R584	3.85	0.52	3.08	Open	
R585	3.85	0.52	3.08	Open	
R586	3.85	0.52	3.08	Open	
R587	3.85	0.52	3.08	Open	
R588	3.85	0.52	3.08	Open	
R589	3.85	0.52	3.08	Open	
R590	3.85	0.52	3.08	Open	
R591	3.85	0.52	3.08	Open	
R592	3.85	0.52	3.08	Open	
R593	3.85	0.52	3.08	Open	
R594	3.85	0.52	3.08	Open	
R595	3.85	0.52	3.08	Open	
R596	3.85	0.52	3.08	Open	
R597	3.85	0.52	3.08	Open	
R598	3.85	0.52	3.08	Open	
R599	3.85	0.52	3.08	Open	
R600	3.85	0.52	3.08	Open	
R601	3.85	0.52	3.08	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R602	3.85	0.52	3.08	Open	
R603	3.85	0.52	3.08	Open	
R604	3.85	0.52	3.08	Open	
R605	3.85	0.52	3.08	Open	
R606	3.85	0.52	3.08	Open	
R607	3.85	0.52	3.08	Open	
R608	3.85	0.52	3.08	Open	
R609	3.85	0.52	3.08	Open	
R610	3.85	0.52	3.08	Open	
R611	3.85	0.52	3.08	Open	
R612	3.85	0.52	3.08	Open	
R613	3.85	0.52	3.08	Open	
R614	3.85	0.52	3.08	Open	
R615	3.85	0.52	3.08	Open	
R616	3.85	0.52	3.08	Open	
R617	3.85	0.52	3.08	Open	
R618	3.85	0.52	3.08	Open	
R619	3.85	0.52	3.08	Open	
R620	3.85	0.52	3.08	Open	
R621	3.85	0.52	3.08	Open	
R622	3.85	0.52	3.08	Open	
R623	3.85	0.52	3.08	Open	
R624	3.85	0.52	3.08	Open	
R625	3.85	0.52	3.08	Open	
R626	3.85	0.52	3.08	Open	
R627	3.85	0.52	3.08	Open	
R628	3.85	0.52	3.08	Open	
R629	3.85	0.52	3.08	Open	
R630	3.85	0.52	3.08	Open	
R631	3.85	0.52	3.08	Open	
R632	3.85	0.52	3.08	Open	
R633	3.85	0.52	3.08	Open	
R634	3.85	0.52	3.08	Open	
R635	3.85	0.52	3.08	Open	
R636	3.85	0.52	3.08	Open	
R637	3.85	0.52	3.08	Open	
R638	3.85	0.52	3.08	Open	
R639	3.85	0.52	3.08	Open	
R640	3.85	0.52	3.08	Open	
R641	3.85	0.52	3.08	Open	
R642	3.85	0.52	3.08	Open	
R643	3.85	0.52	3.08	Open	
R644	3.85	0.52	3.08	Open	
R645	3.85	0.52	3.08	Open	
R646	3.85	0.52	3.08	Open	
R647	3.85	0.52	3.08	Open	
R648	3.85	0.52	3.08	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R649	3.85	0.52		3.08	Open
R650	3.85	0.52		3.08	Open
R651	3.85	0.52		3.08	Open
R652	3.85	0.52		3.08	Open
R653	3.85	0.52		3.08	Open
R37	11.51	0.19		0.14	Open
P1	0.00	0.00		0.00	Closed Pump
P2	150.00	0.00		-80.00	Open Pump
P3	150.00	0.00		-80.00	Open Pump
P4	150.00	0.00		-80.00	Open Pump

1.7 CONCLUSIONI

Il dimensionamento della rete di distribuzione risulta verificato e corretto alla luce dei risultati sopra riportati.

In particolare nell'ipotesi di funzionamento "a" la rete risulta ben bilanciata e non si evidenziano particolari perdite di carico. Considerando una prevalenza in centrale pari a 80 m si verifica che nei nodi periferici le pressioni di esercizio calcolate sono largamente sopra il limite minimo garantito di 4,5 atm.

Si è ipotizzata inoltre una suddivisione della rete in tre semidistretti, di seguito riportati, per i quali è stato verificato il modello nelle condizioni descritte nell'ipotesi di funzionamento "b", "c" e "d". Anche in tali configurazioni, nei rami periferici, sui quali è stato simulato il funzionamento turnato, risultano comunque pressioni di esercizio superiori al limite minimo di 4,5 atm :

- Configurazione b - semicomparto ovest : nodo Z142 - $p = 45.71$ m;
- Configurazione c - semicomparto centro : nodo I192 - $p = 46.46$ m;
- Configurazione d - semicomparto est : nodo I250 - $p = 45.34$ m.

DISTRETTO IRRIGUO VILLA PRATI
Efficientamento dell'area irrigua

2. CALCOLI E VERIFICHE IDRAULICHE

2.1 PREMESSA

La presente relazione di calcolo prende in considerazione la verifica e il dimensionamento della rete di distribuzione irrigua in alta pressione in progetto, destinata a servire il distretto denominato “Villa Prati” nel comune di Bagnacavallo (RA).

La batteria di 6 pompe a servizio della rete progettata sarà collocata all'interno della centrale di pompaggio denominata “Valletta” e la dotazione d'acqua da vasca di accumulo sarà pari a circa 900 l/s con pressione in uscita alla centrale di circa 8 atm.

L'area potenzialmente servita dalla rete di distribuzione è pari a circa 2900 Ha delimitati a Est dal fiume Lamone, a Sud dall'autostrada A14, a Ovest dal canale Naviglio e a Nord dalla strada SS16.

Agli utenti deve essere garantita una pressione minima di esercizio pari a 4 atm per consentire ogni tipo di pratica irrigua senza bisogno di ulteriore rilancio.

Nel presente studio si considera anche l'ipotesi di funzionamento turnato.

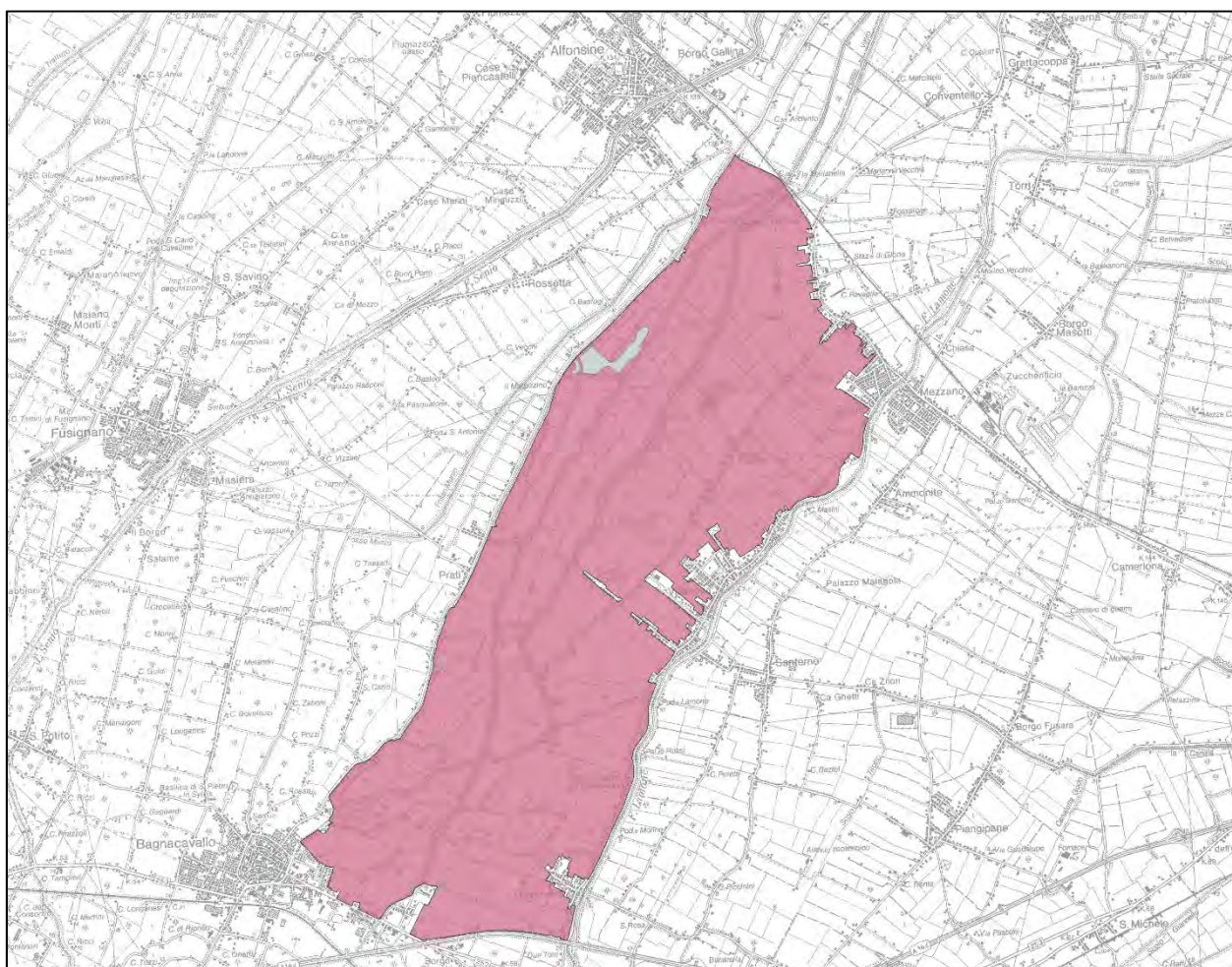


Figura 12 – area distretto Villa Prati

2.2 DISTRETTO IRRIGUO “VILLA PRATI”

Per la verifica della rete di distribuzione nel distretto irriguo servito dalla centrale di pompaggio denominata “Valletta”, si è ricorso al modello idraulico EPANET sviluppato dal Water Supply and Water Resources Division del U.S. Environmental Protection Agency's National Risk Management Research Laboratories, che consente di simulare il comportamento idraulico e la qualità dell'acqua in una rete di condotte in pressione. Il programma si basa su un algoritmo di calcolo che sfrutta il metodo del gradiente per la soluzione iterativa di sistemi di equazioni non lineari. Si rimanda al sito <https://www.epa.gov/water-research/epanet> per la visualizzazione delle specifiche e del manuale.

Il legame tra perdite di carico e portate viene espresso mediante la formula di Darcy Weisbach in quanto teoricamente più corretta e applicabile a tutti i regimi di flusso. Tale formula si rappresenta nell'espressione seguente:

$$h_L = A \cdot q^B$$
$$\text{con } A = 0.0252 \cdot f(\varepsilon, d, q) \cdot d^{-5} \cdot L$$

in cui:

h_L = perdite di carico per unità di lunghezza;

A = coefficiente di resistenza;

q = portata;

B = esponente del flusso.

ε = coefficiente di rugosità di Darcy-Weisbach;

f = coefficiente di rugosità di Darcy-Weisbach;

L = lunghezza del tubo;

d = diametro del tubo.

La tipologia di condotte utilizzate per la rete in oggetto è costituita tubazioni in ghisa rivestite internamente in cemento centrifugato e condotte in polietilene ad alta densità.

Sulla base dei dati proposti dalle case costruttrici delle tubazioni di cui è previsto l'impiego in progetto è stato adottato un coefficiente $\varepsilon = 0.15$ mm per le condotte in ghisa sferoidale e $\varepsilon = 0.015$ mm per le condotte in polietilene alta densità, in linea con i valori solitamente assunti nella pratica progettuale e da letteratura.

La rete viene schematizzata con un reticolo costituito da NODI e RAMI.

I RAMI sono caratterizzati dai nodi di incidenza (iniziali e finali), dalla lunghezza, dal diametro interno e dalla scabrezza della tubazione; ai NODI viene applicata la portata (in entrata ed in uscita). Il programma di calcolo restituisce il carico ai NODI in funzione del carico iniziale dato dalle pompe della centrale e delle perdite di carico distribuite lungo la rete di distribuzione.

Ad ogni NODO è possibile assegnare anche una quota. Trattandosi di un distretto in pianura tutta la rete è stata considerata a quota 10 m. Al fine di considerare eventuali scostamenti di quota tra effettivo posizionamento dell'idrante e piano di progetto, si considera una pressione limite minima di progetto pari a 4,5 atm.

In riferimento agli schemi delle figure riportate successivamente, sono state considerate le seguenti condizioni di funzionamento:

- a. ipotesi di funzionamento considerando una portata in ingresso pari a 900 l/sec (portata massima che l'impianto di pompaggio è in grado di fornire) e una portata in uscita distribuita su tutta la rete (623 idranti potenziali) con valore medio pari a 1,44 l/sec per ogni idrante;
- b. ipotesi di funzionamento turnato a giorni alterni, considerando una portata in ingresso pari a 900 l/sec e distribuzione irrigua sugli idranti (per i quali si prevede una portata di 3.06 l/s e una pressione minima di 4,5 atm) all'interno del semicomparto individuato a nord del distretto.
- c. ipotesi di funzionamento turnato a giorni alterni, considerando una portata in ingresso pari a 900 l/sec e distribuzione irrigua sugli idranti (per i quali si prevede una portata di 2.72 l/s e una pressione minima di 4,5 atm) all'interno del semicomparto individuato a sud del distretto.

Vengono riportati in seguito, in forma tabellare, i dati generali adottati.

Ipotesi di funzionamento - a -			
Comparto	idranti potenziali	portata in uscita	portata da ogni idrante
Villa Prati	n. 623	900 l/s	1,44 l/s

Ipotesi di funzionamento - b - Turno semicomparto nord			
Comparto	idranti potenziali	portata da ogni idrante	portata complessiva
Villa Prati nord	n. 295	3,06 l/s	900 l/s

Ipotesi di funzionamento - c - Turno semicomparto centro			
Comparto	idranti potenziali	portata da ogni idrante	portata complessiva
Villa Prati sud	n. 331	2,72 l/s	900 l/s

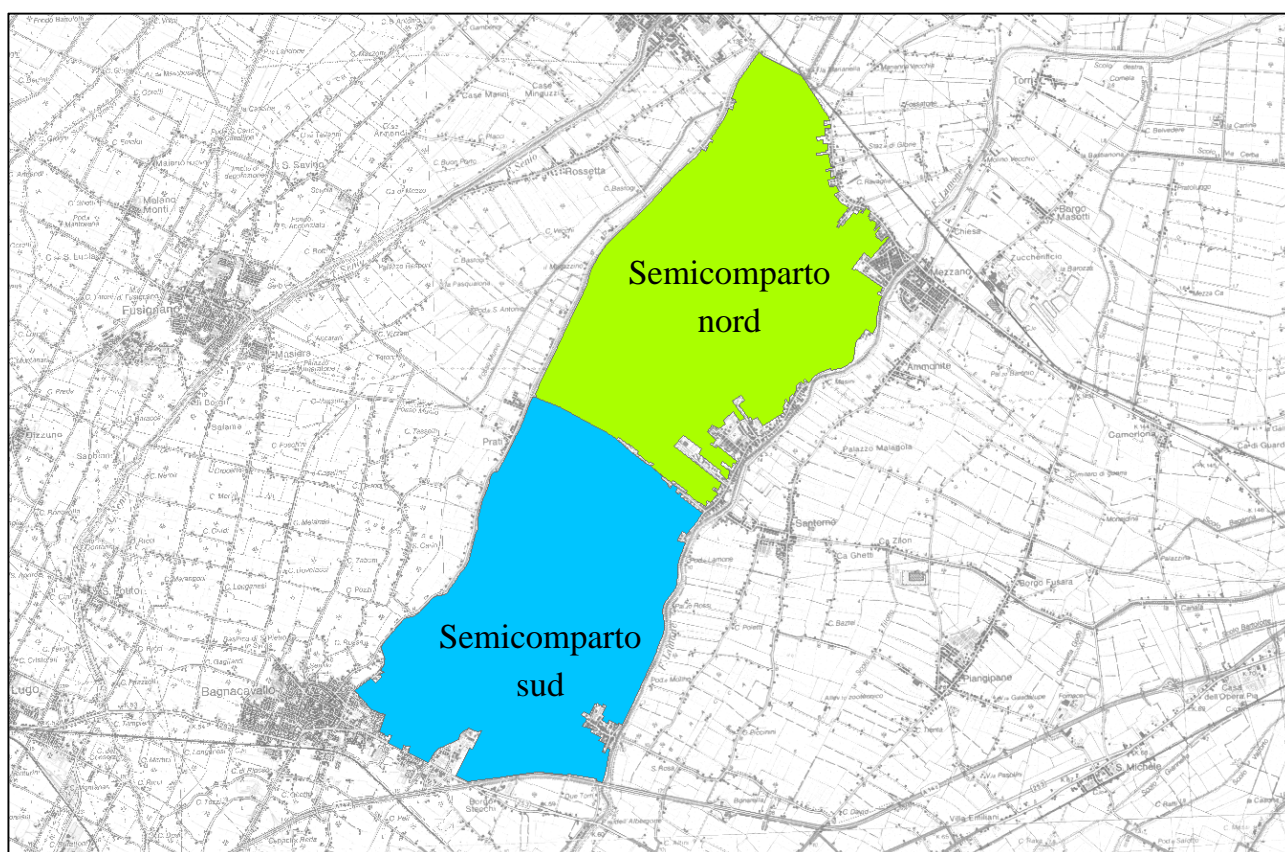
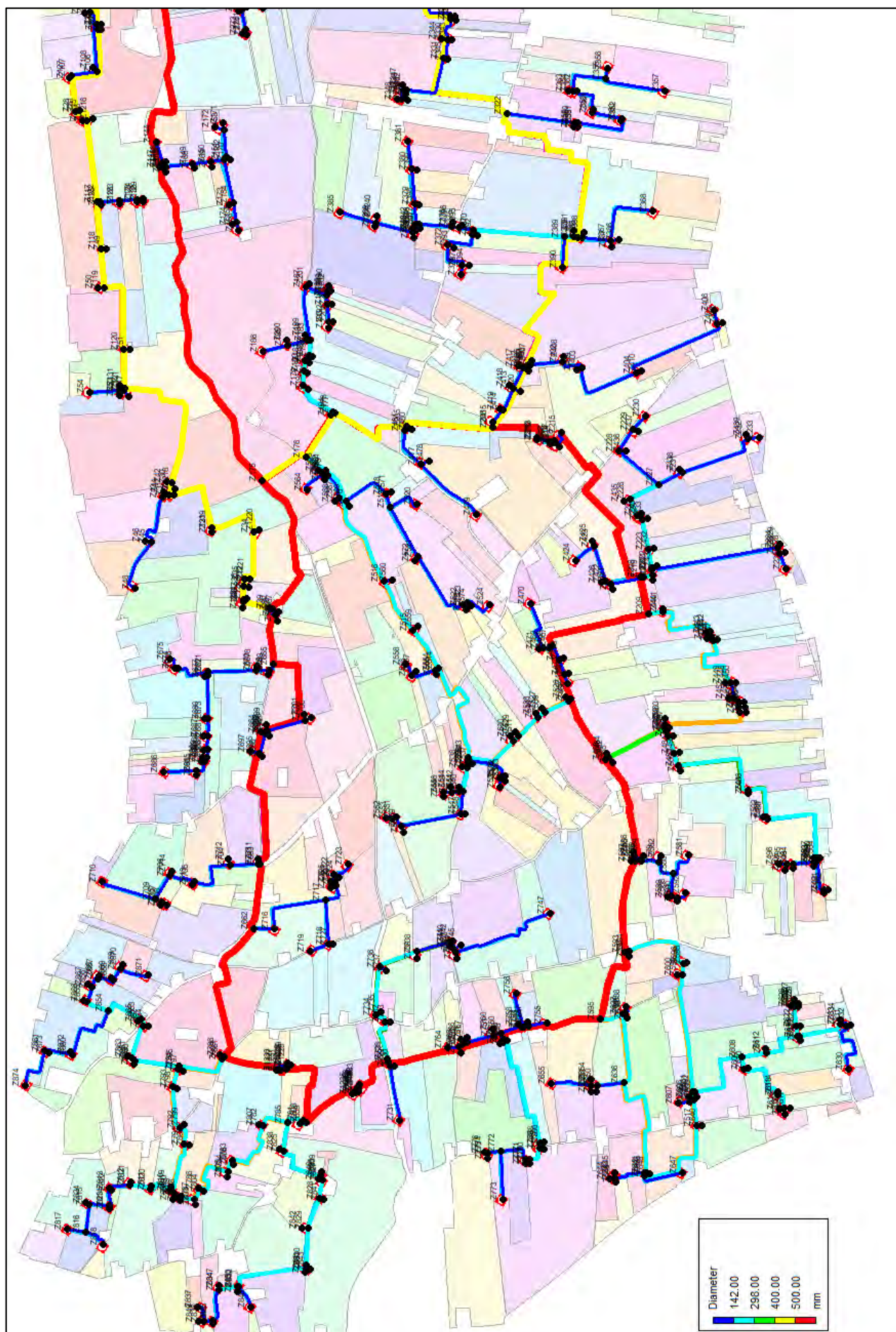


Figura 13 – Semicomparti distretto Villa Prati

Con riferimento alla rete in oggetto si riporta nel seguito la schematizzazione effettuata ed i risultati principali ottenuti dal modello di calcolo.



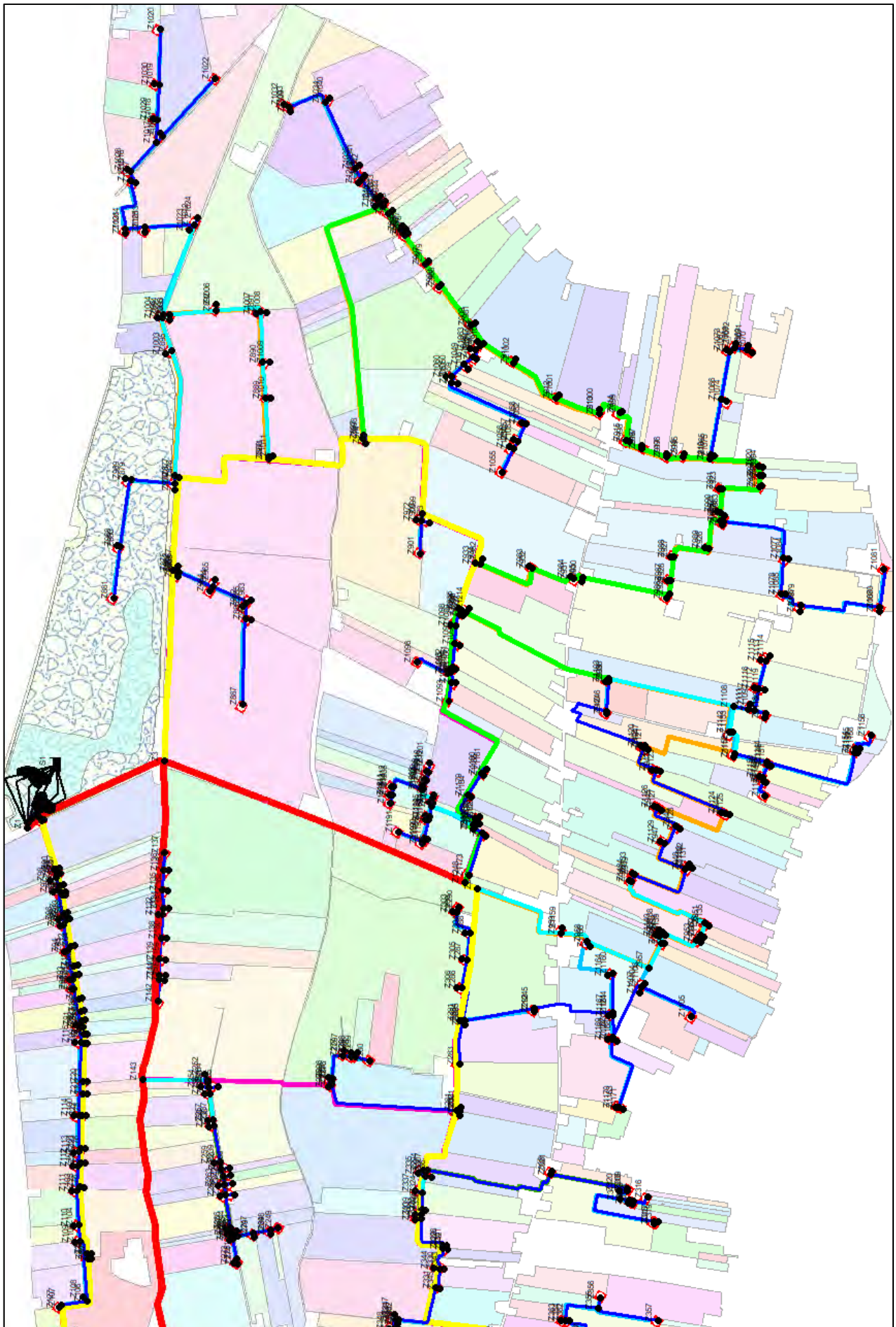


Figura 14_b – modello della rete con numerazione nodi e diametri

***** E P A N E T *****
* Hydraulic and Water Quality *
* Analysis for Pipe Networks *
* Version 2.2 *

DATI SIMULAZIONE VILLA PRATI

[JUNCTIONS]			
;ID	Elev	Demand	
Z1	10	0	;
Z2	10	0	;
Z3	10	0	;
Z4	10	0	;
Z5	10	0	;
Z6	10	0	;
Z7	10	0	;
Z8	10	0	;
Z9	10	0	;
Z10	10	0	;
Z11	10	0	;
Z12	10	0	;
Z13	10	0	;
Z14	10	0	;
Z15	10	0	;
Z16	10	0	;
Z17	10	0	;
Z18	10	0	;
Z19	10	0	;
Z20	10	0	;
Z21	10	0	;
Z22	10	0	;
Z23	10	0	;
Z24	10	0	;
Z25	10	0	;
Z26	10	0	;
Z27	10	0	;
Z28	10	0	;
Z29	10	0	;
Z56	10	1.44	;
Z57	10	1.44	;
Z58	10	1.44	;
Z59	10	1.44	;
Z60	10	1.44	;
Z61	10	1.44	;
Z62	10	1.44	;
Z63	10	1.44	;
Z64	10	1.44	;
Z65	10	1.44	;
Z66	10	1.44	;
Z67	10	1.44	;
Z68	10	1.44	;

Z69	10	1.44	;
Z70	10	1.44	;
Z71	10	1.44	;
Z72	10	1.44	;
Z73	10	1.44	;
Z74	10	1.44	;
Z75	10	1.44	;
Z76	10	1.44	;
Z77	10	1.44	;
Z78	10	1.44	;
Z79	10	1.44	;
Z80	10	1.44	;
Z81	10	1.44	;
Z82	10	0	;
Z83	10	0	;
Z84	10	0	;
Z85	10	0	;
Z86	10	0	;
Z87	10	0	;
Z88	10	0	;
Z89	10	0	;
Z90	10	1.44	;
Z91	10	1.44	;
Z92	10	1.44	;
Z93	10	1.44	;
Z94	10	1.44	;
Z95	10	1.44	;
Z96	10	1.44	;
Z97	10	1.44	;
Z98	10	1.44	;
Z99	10	0	;
Z100	10	0	;
Z101	10	0	;
Z102	10	0	;
Z103	10	0	;
Z104	10	0	;
Z105	10	0	;
Z106	10	0	;
Z107	10	0	;
Z108	10	1.44	;
Z109	10	1.44	;
Z110	10	1.44	;
Z111	10	1.44	;
Z112	10	1.44	;
Z113	10	1.44	;
Z114	10	1.44	;
Z115	10	1.44	;
Z116	10	0	;
Z117	10	0	;
Z118	10	0	;
Z119	10	0	;
Z120	10	0	;
Z121	10	0	;
Z122	10	0	;
Z123	10	0	;

Z124	10	0	;	Z155	10	0	;
Z125	10	1.44	;	Z156	10	1.44	;
Z126	10	1.44	;	Z157	10	1.44	;
Z127	10	1.44	;	Z158	10	1.44	;
Z128	10	1.44	;	Z159	10	1.44	;
Z129	10	0	;	Z160	10	1.44	;
Z130	10	1.44	;	Z161	10	1.44	;
Z30	10	0	;	Z162	10	1.44	;
Z31	10	0	;	Z163	10	1.44	;
Z32	10	0	;	Z164	10	0	;
Z33	10	0	;	Z165	10	0	;
Z34	10	0	;	Z166	10	1.44	;
Z35	10	0	;	Z167	10	1.44	;
Z36	10	0	;	Z168	10	1.44	;
Z37	10	0	;	Z169	10	1.44	;
Z38	10	0	;	Z170	10	1.44	;
Z39	10	0	;	Z171	10	1.44	;
Z40	10	0	;	Z172	10	1.44	;
Z42	10	1.44	;	Z173	10	1.44	;
Z43	10	0	;	Z174	10	1.44	;
Z44	10	1.44	;	Z175	10	0	;
Z45	10	0	;	Z176	10	0	;
Z46	10	1.44	;	Z177	10	0	;
Z48	10	1.44	;	Z178	10	0	;
Z49	10	1.44	;	Z179	10	0	;
Z50	10	1.44	;	Z180	10	0	;
Z51	10	1.44	;	Z181	10	0	;
Z52	10	0	;	Z182	10	0	;
Z53	10	0	;	Z183	10	0	;
Z54	10	1.44	;	Z184	10	0	;
Z55	10	1.44	;	Z185	10	0	;
Z131	10	1.44	;	Z186	10	1.44	;
Z132	10	0	;	Z187	10	0	;
Z133	10	0	;	Z188	10	0	;
Z134	10	0	;	Z189	10	0	;
Z135	10	0	;	Z190	10	1.44	;
Z136	10	0	;	Z191	10	0	;
Z137	10	1.44	;	Z192	10	0	;
Z138	10	0	;	Z193	10	1.44	;
Z139	10	0	;	Z194	10	1.44	;
Z140	10	0	;	Z195	10	1.44	;
Z141	10	0	;	Z196	10	1.44	;
Z142	10	1.44	;	Z197	10	1.44	;
Z143	10	0	;	Z198	10	1.44	;
Z144	10	1.44	;	Z199	10	1.44	;
Z145	10	0	;	Z200	10	1.44	;
Z146	10	0	;	Z201	10	1.44	;
Z147	10	0	;	Z202	10	1.44	;
Z148	10	0	;	Z203	10	1.44	;
Z149	10	0	;	Z204	10	1.44	;
Z150	10	0	;	Z205	10	0	;
Z151	10	0	;	Z206	10	0	;
Z152	10	0	;	Z207	10	0	;
Z153	10	0	;	Z208	10	0	;
Z154	10	0	;	Z209	10	0	;

Z263	10	1.44	;
Z264	10	1.44	;
Z265	10	1.44	;
Z266	10	1.44	;
Z267	10	1.44	;
Z268	10	0	;
Z269	10	1.44	;
Z270	10	1.44	;
Z271	10	1.44	;
Z272	10	1.44	;
Z273	10	1.44	;
Z274	10	1.44	;
Z275	10	0	;
Z276	10	0	;
Z277	10	0	;
Z278	10	0	;
Z279	10	0	;
Z280	10	1.44	;
Z281	10	0	;
Z282	10	0	;
Z283	10	1.44	;
Z284	10	0	;
Z285	10	0	;
Z286	10	0	;
Z287	10	0	;
Z288	10	0	;
Z289	10	0	;
Z290	10	1.44	;
Z291	10	0	;
Z292	10	1.44	;
Z293	10	0	;
Z294	10	0	;
Z295	10	1.44	;
Z296	10	1.44	;
Z297	10	1.44	;
Z298	10	1.44	;
Z299	10	1.44	;
Z300	10	1.44	;
Z301	10	1.44	;
Z302	10	1.44	;
Z303	10	1.44	;
Z304	10	1.44	;
Z305	10	1.44	;
Z306	10	1.44	;
Z307	10	0	;
Z308	10	0	;
Z309	10	0	;
Z310	10	0	;
Z311	10	0	;
Z312	10	1.44	;
Z313	10	0	;
Z314	10	0	;
Z315	10	1.44	;
Z316	10	1.44	;
Z317	10	0	;

Z210	10	0	;
Z211	10	0	;
Z212	10	0	;
Z213	10	1.44	;
Z214	10	0	;
Z215	10	1.44	;
Z216	10	1.44	;
Z217	10	1.44	;
Z218	10	1.44	;
Z219	10	0	;
Z220	10	0	;
Z221	10	0	;
Z222	10	0	;
Z223	10	0	;
Z224	10	0	;
Z225	10	0	;
Z226	10	0	;
Z227	10	0	;
Z228	10	0	;
Z229	10	0	;
Z230	10	1.44	;
Z231	10	0	;
Z232	10	0	;
Z233	10	1.44	;
Z234	10	0	;
Z235	10	0	;
Z236	10	1.44	;
Z41	10	0	;
Z47	10	0	;
Z237	10	0	;
Z238	10	0	;
Z239	10	0	;
Z240	10	0	;
Z241	10	0	;
Z242	10	0	;
Z243	10	0	;
Z244	10	0	;
Z245	10	0	;
Z246	10	0	;
Z247	10	0	;
Z248	10	0	;
Z249	10	1.44	;
Z250	10	0	;
Z251	10	0	;
Z252	10	1.44	;
Z253	10	0	;
Z254	10	1.44	;
Z255	10	1.44	;
Z256	10	1.44	;
Z257	10	1.44	;
Z258	10	1.44	;
Z259	10	1.44	;
Z260	10	1.44	;
Z261	10	1.44	;
Z262	10	1.44	;

Z318	10	1.44	;	Z373	10	0	;
Z319	10	1.44	;	Z374	10	1.44	;
Z320	10	1.44	;	Z375	10	0	;
Z321	10	1.44	;	Z376	10	0	;
Z322	10	0	;	Z377	10	0	;
Z323	10	0	;	Z378	10	0	;
Z324	10	0	;	Z379	10	0	;
Z325	10	0	;	Z380	10	0	;
Z326	10	0	;	Z381	10	1.44	;
Z327	10	0	;	Z382	10	0	;
Z328	10	0	;	Z383	10	0	;
Z329	10	0	;	Z384	10	0	;
Z330	10	0	;	Z385	10	1.44	;
Z331	10	0	;	Z386	10	1.44	;
Z332	10	0	;	Z387	10	1.44	;
Z333	10	0	;	Z388	10	1.44	;
Z334	10	0	;	Z389	10	0	;
Z335	10	1.44	;	Z390	10	1.44	;
Z336	10	1.44	;	Z391	10	1.44	;
Z337	10	1.44	;	Z392	10	1.44	;
Z338	10	1.44	;	Z393	10	1.44	;
Z339	10	1.44	;	Z394	10	1.44	;
Z340	10	1.44	;	Z395	10	1.44	;
Z341	10	1.44	;	Z396	10	1.44	;
Z342	10	1.44	;	Z397	10	1.44	;
Z343	10	1.44	;	Z398	10	1.44	;
Z344	10	1.44	;	Z399	10	1.44	;
Z345	10	1.44	;	Z400	10	0	;
Z346	10	1.44	;	Z401	10	0	;
Z347	10	1.44	;	Z402	10	0	;
Z348	10	1.44	;	Z403	10	0	;
Z349	10	1.44	;	Z404	10	0	;
Z350	10	0	;	Z405	10	0	;
Z351	10	0	;	Z406	10	1.44	;
Z352	10	0	;	Z407	10	1.44	;
Z353	10	0	;	Z408	10	1.44	;
Z354	10	0	;	Z409	10	1.44	;
Z355	10	0	;	Z410	10	1.44	;
Z356	10	1.44	;	Z411	10	1.44	;
Z357	10	1.44	;	Z412	10	0	;
Z358	10	1.44	;	Z413	10	0	;
Z359	10	1.44	;	Z414	10	0	;
Z360	10	1.44	;	Z415	10	1.44	;
Z361	10	1.44	;	Z416	10	1.44	;
Z362	10	1.44	;	Z417	10	1.44	;
Z363	10	1.44	;	Z418	10	1.44	;
Z364	10	0	;	Z419	10	1.44	;
Z365	10	0	;	Z420	10	1.44	;
Z366	10	0	;	Z421	10	0	;
Z367	10	0	;	Z422	10	0	;
Z368	10	1.44	;	Z423	10	0	;
Z369	10	0	;	Z424	10	1.44	;
Z370	10	0	;	Z425	10	1.44	;
Z371	10	0	;	Z426	10	1.44	;
Z372	10	0	;	Z427	10	1.44	;

Z428	10	1.44	/	Z483	10	0
Z429	10	1.44	/	Z484	10	0
Z430	10	1.44	/	Z485	10	0
Z431	10	1.44	/	Z486	10	0
Z432	10	1.44	/	Z487	10	0
Z433	10	1.44	/	Z488	10	0
Z434	10	1.44	/	Z489	10	0
Z435	10	1.44	/	Z490	10	0
Z436	10	1.44	/	Z491	10	0
Z437	10	1.44	/	Z492	10	1.44
Z438	10	1.44	/	Z493	10	0
Z439	10	1.44	/	Z494	10	0
Z440	10	0	/	Z495	10	0
Z441	10	1.44	/	Z496	10	1.44
Z442	10	0	/	Z497	10	1.44
Z443	10	1.44	/	Z498	10	1.44
Z444	10	0	/	Z499	10	1.44
Z445	10	1.44	/	Z500	10	1.44
Z446	10	0	/	Z501	10	1.44
Z447	10	1.44	/	Z502	10	1.44
Z448	10	0	/	Z503	10	1.44
Z449	10	1.44	/	Z504	10	1.44
Z450	10	1.44	/	Z505	10	1.44
Z451	10	0	/	Z506	10	1.44
Z452	10	1.44	/	Z507	10	1.44
Z453	10	0	/	Z508	10	1.44
Z454	10	1.44	/	Z509	10	0
Z455	10	0	/	Z510	10	0
Z456	10	1.44	/	Z511	10	0
Z457	10	0	/	Z512	10	0
Z458	10	1.44	/	Z513	10	0
Z459	10	0	/	Z514	10	0
Z460	10	1.44	/	Z515	10	0
Z461	10	0	/	Z516	10	0
Z462	10	0	/	Z518	10	0
Z463	10	0	/	Z519	10	0
Z464	10	1.44	/	Z520	10	1.44
Z465	10	1.44	/	Z521	10	0
Z466	10	0	/	Z522	10	0
Z467	10	0	/	Z523	10	0
Z468	10	0	/	Z524	10	1.44
Z469	10	0	/	Z525	10	0
Z470	10	1.44	/	Z526	10	1.44
Z471	10	1.44	/	Z527	10	1.44
Z472	10	0	/	Z528	10	1.44
Z473	10	1.44	/	Z529	10	1.44
Z474	10	0	/	Z530	10	1.44
Z475	10	1.44	/	Z531	10	0
Z476	10	1.44	/	Z532	10	0
Z477	10	0	/	Z533	10	1.44
Z478	10	1.44	/	Z534	10	1.44
Z479	10	1.44	/	Z535	10	1.44
Z480	10	1.44	/	Z536	10	0
Z481	10	0	/	Z537	10	1.44
Z482	10	0	/	Z538	10	1.44

z758	10	1.44	;	z813	10	0
z759	10	1.44	;	z814	10	0
z760	10	1.44	;	z815	10	0
z761	10	0	;	z816	10	0
z762	10	0	;	z817	10	1.44
z763	10	0	;	z818	10	1.44
z764	10	1.44	;	z819	10	1.44
z765	10	1.44	;	z820	10	1.44
z766	10	1.44	;	z821	10	1.44
z767	10	1.44	;	z822	10	1.44
z768	10	0	;	z823	10	1.44
z769	10	0	;	z824	10	1.44
z770	10	0	;	z825	10	0
z771	10	0	;	z826	10	0
z772	10	0	;	z827	10	0
z773	10	1.44	;	z828	10	0
z774	10	0	;	z829	10	0
z775	10	1.44	;	z830	10	0
z776	10	1.44	;	z831	10	0
z777	10	1.44	;	z832	10	0
z778	10	1.44	;	z833	10	0
z779	10	1.44	;	z834	10	0
z780	10	1.44	;	z835	10	0
z781	10	0	;	z836	10	0
z782	10	0	;	z837	10	1.44
z783	10	0	;	z838	10	1.44
z784	10	0	;	z839	10	1.44
z785	10	0	;	z840	10	1.44
z786	10	0	;	z841	10	1.44
z787	10	0	;	z842	10	1.44
z788	10	0	;	z843	10	1.44
z789	10	0	;	z844	10	1.44
z790	10	0	;	z845	10	1.44
z791	10	0	;	z846	10	1.44
z792	10	0	;	z847	10	1.44
z793	10	0	;	z848	10	1.44
z794	10	0	;	z849	10	1.44
z795	10	0	;	z850	10	0
z796	10	1.44	;	z851	10	0
z797	10	1.44	;	z852	10	0
z798	10	1.44	;	z853	10	0
z799	10	1.44	;	z854	10	0
z800	10	1.44	;	z855	10	0
z801	10	1.44	;	z856	10	0
z802	10	1.44	;	z857	10	0
z803	10	1.44	;	z858	10	0
z804	10	1.44	;	z859	10	0
z805	10	1.44	;	z860	10	0
z806	10	1.44	;	z861	10	0
z807	10	1.44	;	z862	10	1.44
z808	10	1.44	;	z863	10	1.44
z809	10	0	;	z864	10	1.44
z810	10	0	;	z865	10	1.44
z811	10	0	;	z866	10	1.44
z812	10	0	;	z867	10	1.44

Z979	10	1.44	;	Z1034	10	0	;
Z980	10	1.44	;	Z1035	10	0	;
Z981	10	1.44	;	Z1036	10	0	;
Z982	10	1.44	;	Z1037	10	0	;
Z983	10	1.44	;	Z1038	10	0	;
Z984	10	1.44	;	Z1039	10	1.44	;
Z985	10	1.44	;	Z1040	10	1.44	;
Z986	10	1.44	;	Z1041	10	1.44	;
Z987	10	1.44	;	Z1042	10	1.44	;
Z988	10	1.44	;	Z1043	10	1.44	;
Z989	10	1.44	;	Z1044	10	1.44	;
Z990	10	1.44	;	Z1045	10	1.44	;
Z991	10	1.44	;	Z1046	10	0	;
Z992	10	1.44	;	Z1047	10	0	;
Z993	10	1.44	;	Z1048	10	0	;
Z994	10	1.44	;	Z1049	10	0	;
Z995	10	1.44	;	Z1050	10	0	;
Z996	10	1.44	;	Z1051	10	0	;
Z997	10	1.44	;	Z1052	10	0	;
Z998	10	1.44	;	Z1053	10	0	;
Z999	10	1.44	;	Z1054	10	0	;
Z1000	10	1.44	;	Z1055	10	1.44	;
Z1001	10	1.44	;	Z1056	10	1.44	;
Z1002	10	1.44	;	Z1057	10	1.44	;
Z1003	10	1.44	;	Z1058	10	1.44	;
Z1004	10	1.44	;	Z1059	10	1.44	;
Z1005	10	1.44	;	Z1060	10	1.44	;
Z1006	10	1.44	;	Z1061	10	1.44	;
Z1007	10	1.44	;	Z1062	10	1.44	;
Z1008	10	1.44	;	Z1063	10	1.44	;
Z1009	10	1.44	;	Z1064	10	1.44	;
Z1010	10	1.44	;	Z1065	10	0	;
Z1011	10	1.44	;	Z1066	10	0	;
Z1012	10	0	;	Z1067	10	0	;
Z1013	10	0	;	Z1068	10	0	;
Z1014	10	0	;	Z1069	10	0	;
Z1015	10	0	;	Z1070	10	1.44	;
Z1016	10	0	;	Z1071	10	1.44	;
Z1017	10	0	;	Z1072	10	1.44	;
Z1018	10	0	;	Z1073	10	1.44	;
Z1019	10	0	;	Z1074	10	1.44	;
Z1020	10	1.44	;	Z1075	10	1.44	;
Z1021	10	0	;	Z1076	10	0	;
Z1022	10	1.44	;	Z1077	10	0	;
Z1023	10	1.44	;	Z1078	10	0	;
Z1024	10	1.44	;	Z1079	10	0	;
Z1025	10	1.44	;	Z1080	10	0	;
Z1026	10	1.44	;	Z1081	10	1.44	;
Z1027	10	1.44	;	Z1082	10	1.44	;
Z1028	10	1.44	;	Z1083	10	1.44	;
Z1029	10	1.44	;	Z1084	10	1.44	;
Z1030	10	1.44	;	Z1085	10	1.44	;
Z1031	10	1.44	;	Z1086	10	1.44	;
Z1032	10	1.44	;	Z1087	10	1.44	;
Z1033	10	0	;	Z1088	10	0	;

Z1089	10	0	;	Z1144	10	0	;
Z1090	10	0	;	Z1145	10	0	;
Z1091	10	0	;	Z1146	10	0	;
Z1092	10	0	;	Z1147	10	0	;
Z1093	10	1.44	;	Z1148	10	1.44	;
Z1094	10	0	;	Z1149	10	1.44	;
Z1095	10	0	;	Z1150	10	1.44	;
Z1096	10	1.44	;	Z1151	10	1.44	;
Z1097	10	1.44	;	Z1152	10	1.44	;
Z1098	10	1.44	;	Z1153	10	1.44	;
Z1099	10	1.44	;	Z1154	10	0	;
Z1100	10	1.44	;	Z1155	10	0	;
Z1101	10	1.44	;	Z1156	10	1.44	;
Z1102	10	1.44	;	Z1157	10	1.44	;
Z1103	10	1.44	;	Z1158	10	1.44	;
Z1104	10	0	;	Z1159	10	1.44	;
Z1105	10	1.44	;	Z1160	10	0	;
Z1106	10	1.44	;	Z1161	10	0	;
Z1107	10	1.44	;	Z1162	10	0	;
Z1108	10	0	;	Z1163	10	0	;
Z1109	10	0	;	Z1164	10	1.44	;
Z1110	10	0	;	Z1166	10	1.44	;
Z1111	10	0	;	Z1167	10	1.44	;
Z1112	10	0	;	Z1168	10	1.44	;
Z1113	10	0	;	Z1169	10	1.44	;
Z1114	10	1.44	;	Z1170	10	1.44	;
Z1115	10	1.44	;	Z1171	10	1.44	;
Z1116	10	1.44	;	Z1172	10	0	;
Z1117	10	1.44	;	Z1173	10	1.44	;
Z1118	10	1.44	;	Z1174	10	1.44	;
Z1119	10	1.44	;	Z1175	10	0	;
Z1120	10	1.44	;	Z1176	10	0	;
Z1121	10	1.44	;	Z1177	10	0	;
Z1122	10	1.44	;	Z1178	10	0	;
Z1123	10	1.44	;	Z1179	10	0	;
Z1124	10	1.44	;	Z1180	10	0	;
Z1125	10	1.44	;	Z1181	10	1.44	;
Z1126	10	1.44	;	Z1182	10	1.44	;
Z1127	10	1.44	;	Z1183	10	1.44	;
Z1128	10	1.44	;	Z1184	10	1.44	;
Z1129	10	1.44	;	Z1185	10	1.44	;
Z1130	10	0	;	Z1186	10	0	;
Z1131	10	1.44	;	Z1187	10	0	;
Z1132	10	1.44	;	Z1188	10	0	;
Z1133	10	1.44	;	Z1189	10	0	;
Z1134	10	1.44	;	Z1190	10	0	;
Z1135	10	1.44	;	Z1191	10	1.44	;
Z1136	10	1.44	;	Z1192	10	1.44	;
Z1137	10	1.44	;	Z1193	10	1.44	;
Z1138	10	1.44	;	Z1194	10	1.44	;
Z1139	10	1.44	;	Z1195	10	1.44	;
Z1140	10	1.44	;	Z1196	10	0	;
Z1141	10	1.44	;	Z1197	10	0	;
Z1142	10	0	;	Z1198	10	0	;
Z1143	10	0	;	Z1199	10	0	;

Z1200	10	0	;	Z4	7398.103	4530.795
Z1201	10	1.44	;	Z5	7195.652	4468.572
Z1202	10	0	;	Z6	7175.062	4463.461
Z1203	10	0	;	Z7	7128.169	4453.842
Z1204	10	0	;	Z8	7097.057	4445.726
Z1205	10	1.44	;	Z9	7086.536	4443.923
Z1206	10	1.44	;	Z10	7009.283	4432.350
Z1207	10	1.44	;	Z11	6983.132	4425.737
Z1208	10	1.44	;	Z12	6871.010	4410.106
Z1209	10	1.44	;	Z13	6791.202	4397.481
Z1210	10	1.44	;	Z14	6752.124	4390.567
Z1211	10	1.44	;	Z15	6652.928	4374.636
Z1212	10	1.44	;	Z16	6600.775	4366.820
Z1213	10	1.44	;	Z17	6562.900	4360.959
Z1214	10	0	;	Z18	6505.336	4354.345
Z1215	10	1.44	;	Z19	6467.761	4352.993
Z1216	10	1.44	;	Z20	6306.642	4355.247
Z1217	10	1.44	;	Z21	6256.236	4357.288
Z1218	10	1.44	;	Z22	6165.663	4360.508
Z1219	10	1.44	;	Z23	6025.736	4364.415
Z1220	10	1.44	;	Z24	5967.722	4364.866
Z1221	10	1.44	;	Z25	5865.219	4367.872
Z1222	10	1.44	;	Z26	5585.966	4338.714
Z1223	10	1.44	;	Z27	5565.676	4336.159
Z1224	10	1.44	;	Z28	5219.090	4430.997
Z1225	10	0	;	Z29	6535.035	4355.832
Z1226	10	0	;	Z56	7403.097	4520.345
Z1227	10	0	;	Z57	7199.275	4455.923
Z1228	10	1.44	;	Z58	7178.893	4450.100
Z1229	10	1.44	;	Z59	7131.941	4439.909
Z1230	10	1.44	;	Z60	7101.368	4431.174
Z1231	10	1.44	;	Z61	7088.629	4428.990
Z1232	10	0	;	Z62	7013.652	4419.891
Z1233	10	1.44	;	Z63	6987.810	4411.155
Z1234	10	0	;	Z64	6875.344	4392.229
Z1235	10	1.44	;	Z65	6792.724	4380.218
Z1236	10	0	;	Z66	6753.415	4374.395
Z1237	10	1.44	;	Z67	6654.780	4361.292
Z1238	10	1.44	;	Z68	6602.369	4354.376
Z1239	10	1.44	;	Z69	6564.516	4347.825
Z1240	10	1.44	;	Z70	6505.554	4340.182
Z1241	10	1.44	;	Z71	6466.245	4338.362
Z1242	10	1.44	;	Z72	6533.215	4369.299
Z1243	10	0	;	Z73	6306.100	4340.546
Z1244	10	0	;	Z74	6255.508	4341.274
Z1245	10	0	;	Z75	6165.972	4344.549
Z1246	10	0	;	Z76	6026.573	4346.005
Z1247	10	0	;	Z77	5966.882	4348.189
Z1248	10	0	;	Z78	5864.243	4352.193
				Z79	5585.080	4323.439
				Z80	5565.062	4320.163
				Z81	5224.753	4412.247
				Z82	6544.009	4370.933
				Z83	6696.662	4393.905
				Z84	6734.455	4401.315

[COORDINATES]

Node	X-Coord	Y-Coord
Z1	7367.560	4588.339
Z2	7412.715	4536.734
Z3	7647.580	4016.643

Z85
Z86
Z87
Z88
Z89
Z90
Z91
Z92
Z93
Z94
Z95
Z96
Z97
Z98
Z99
Z100
Z101
Z102
Z103
Z104
Z105
Z106
Z107
Z108
Z109
Z110
Z111
Z112
Z113
Z114
Z115
Z116
Z117
Z118
Z119
Z120
Z121
Z122
Z123
Z124
Z125
Z126
Z127
Z128
Z129
Z130
Z30
Z31
Z32
Z33
Z34
Z35
Z36
Z37
Z38

6853.391
6963.435
6996.040
7108.677
7160.179
7194.267
6542.527
6694.069
6732.973
6848.574
6959.729
6986.036
7102.008
7150.175
6471.316
6163.127
6012.001
5954.789
5851.159
5708.669
5639.043
5389.146
5369.715
5402.639
5631.487
5701.653
5849.001
5951.550
6009.302
6163.127
6469.696
5181.887
4838.616
4641.072
4478.072
4217.380
4054.380
4840.139
4845.750
4849.865
4825.175
4831.909
5361.623
4840.139
4851.362
4839.391
3656.082
3603.737
3606.468
3465.363
3449.432
3251.581
3219.431
3166.767
3154.933

Z39
Z40
Z42
Z43
Z44
Z45
Z46
Z48
Z49
Z50
Z51
Z52
Z53
Z54
Z55
Z131
Z132
Z133
Z134
Z135
Z136
Z137
Z138
Z139
Z140
Z141
Z142
Z143
Z144
Z145
Z146
Z147
Z148
Z149
Z150
Z151
Z152
Z153
Z154
Z155
Z156
Z157
Z158
Z159
Z160
Z161
Z162
Z163
Z164
Z165
Z166
Z167
Z168
Z169
Z170

3128.202
3126.712
3659.645
3596.507
3619.748
3405.157
3411.742
3211.482
4642.351
4478.502
4217.816
4043.896
4043.121
4036.536
4021.749
4066.421
7006.273
7004.688
7032.684
7107.691
7192.205
7264.043
6908.553
6820.341
6752.201
6734.770
6642.860
6316.950
5091.061
4986.103
5003.803
4986.103
4987.208
4997.993
5009.085
5014.895
5028.629
5140.611
4833.717
4755.013
4720.150
6730.016
6751.144
6814.530
6905.384
7032.684
7106.634
7191.149
6310.738
6295.093
5009.304
4965.111
4982.236
4987.208
5017.038

3612.706
3602.422
4044.600
4064.743
4057.383
4112.387
4135.240
4179.785
4301.026
4333.951
4199.540
4229.366
4243.311
4370.361
4243.128
4244.990
4040.013
4022.582
4022.054
4025.751
4018.356
4014.659
4029.977
4037.372
4038.957
4037.372
4042.126
4105.512
4088.772
4062.256
4063.783
4074.409
4051.208
3938.596
3860.420
3803.372
3796.505
3803.900
3766.925
3753.192
3744.740
4014.659
4013.074
4012.546
4007.264
3998.812
4002.510
3998.284
3832.586
3316.511
4050.103
4048.446
3930.230
3855.654
3777.764

Z171 5172.266 3807.042
Z172 5156.246 3842.949
Z173 4825.903 3784.393
Z174 4743.594 3770.031
Z175 3666.840 3646.233
Z176 3763.549 3457.092
Z177 3950.237 3339.601
Z178 3956.724 3348.251
Z179 4064.845 3473.671
Z180 4128.997 3469.346
Z181 4168.641 3462.859
Z182 4190.986 3447.722
Z183 4258.021 3439.793
Z184 4255.858 3453.488
Z185 4234.955 3534.939
Z186 4209.727 3640.898
Z187 4480.029 3457.092
Z188 4444.709 3372.037
Z189 4465.613 3368.433
Z190 4485.074 3366.271
Z191 4408.669 3369.154
Z192 4335.868 3365.550
Z193 4310.640 3366.271
Z194 3942.308 3357.621
Z195 4049.708 3449.884
Z196 4119.626 3453.488
Z197 4162.154 3444.118
Z198 4185.940 3432.585
Z199 4279.645 3464.300
Z200 4258.742 3541.427
Z201 4493.003 3444.839
Z202 4462.009 3354.738
Z203 4408.669 3352.576
Z204 4333.705 3346.809
Z205 3895.167 3037.702
Z206 3889.989 2674.826
Z207 3834.223 2416.710
Z208 3258.242 2050.647
Z209 3102.496 2017.984
Z210 3826.499 2419.742
Z211 3828.840 2430.862
Z212 3840.350 2481.586
Z213 3848.739 2487.634
Z214 3823.573 2409.793
Z215 3866.882 2382.675
Z216 3838.204 2487.438
Z217 3819.866 2433.399
Z218 3809.331 2393.210
Z219 3260.199 2039.531
Z220 3267.885 2000.289
Z221 3289.731 2004.335
Z222 3300.250 2004.739
Z223 3375.092 2019.303
Z224 3499.695 2043.981
Z225 3516.686 2065.423

Z226 3586.270 2094.146
Z227 3649.380 1976.016
Z228 3788.547 2143.097
Z229 3879.167 2081.200
Z230 3937.423 2032.654
Z231 3698.331 1875.687
Z232 3841.139 1600.590
Z233 3845.184 1553.257
Z234 3383.992 1471.941
Z235 3360.933 1463.041
Z236 3294.991 1440.386
Z41 6300.807 3832.478
Z47 6256.074 3827.345
Z237 6146.073 3813.412
Z238 6121.140 3807.545
Z239 5969.339 3784.811
Z240 5938.539 3777.478
Z241 5909.939 3771.611
Z242 5874.739 3766.478
Z243 5830.006 3759.145
Z244 5692.872 3737.878
Z245 5668.672 3734.211
Z246 5653.272 3732.745
Z247 5672.339 3642.544
Z248 5686.272 3572.144
Z249 5693.605 3542.811
Z250 5648.327 3731.536
Z251 5562.338 3712.211
Z252 6336.007 3849.345
Z253 6281.007 3829.545
Z254 6286.557 3865.532
Z255 6286.331 3793.467
Z256 6256.154 3847.516
Z257 6143.552 3833.553
Z258 6115.626 3829.950
Z259 5964.514 3808.105
Z260 5946.273 3745.724
Z261 5913.843 3738.067
Z262 5879.837 3732.211
Z263 5870.829 3789.639
Z264 5833.445 3723.654
Z265 5825.563 3782.882
Z266 5689.089 3754.957
Z267 5666.569 3750.903
Z268 5657.786 3710.817
Z269 5669.496 3569.839
Z270 5655.308 3639.652
Z271 5679.180 3713.519
Z272 5644.048 3745.949
Z273 5546.084 3726.131
Z274 5543.832 3710.141
Z275 6304.361 3315.482
Z276 6318.777 3314.452
Z277 6414.542 3268.629
Z278 6411.453 3236.193

Z279 6408.363
Z280 6392.917
Z281 6184.398
Z282 6182.339
Z283 6379.531
Z284 6560.763
Z285 6562.307
Z286 6698.410
Z287 6814.590
Z288 6928.890
Z289 7015.387
Z290 7035.981
Z291 6561.316
Z292 6602.250
Z293 7113.439
Z294 5937.096
Z295 6284.382
Z296 6322.527
Z297 6435.525
Z298 6429.047
Z299 6428.328
Z300 6164.406
Z301 6200.136
Z302 6543.063
Z303 7019.977
Z304 6929.488
Z305 6820.357
Z306 6701.517
Z307 5933.547
Z308 5916.505
Z309 5857.633
Z310 5850.104
Z311 5816.788
Z312 5795.357
Z313 5810.603
Z314 5806.059
Z315 5793.905
Z316 5822.946
Z317 5720.228
Z318 5710.413
Z319 5720.214
Z320 5851.234
Z321 5932.938
Z322 5211.017
Z323 5911.227
Z324 5842.511
Z325 5769.942
Z326 5748.107
Z327 5731.409
Z328 5619.023
Z329 5605.537
Z330 5521.408
Z331 5444.986
Z332 5308.196
Z333 5308.838

Z279 3217.143
Z280 3156.389
Z281 2791.866
Z282 2776.420
Z283 2777.965
Z284 2764.578
Z285 2755.311
Z286 2768.581
Z287 2747.073
Z288 2735.746
Z289 2788.777
Z290 2779.509
Z291 2775.184
Z292 2466.353
Z293 2702.117
Z294 2930.930
Z295 3328.025
Z296 3330.904
Z297 3266.129
Z298 3236.620
Z299 3209.990
Z300 2775.960
Z301 2772.077
Z302 2753.823
Z303 2806.253
Z304 2754.989
Z305 2768.193
Z306 2788.000
Z307 2915.463
Z308 2398.006
Z309 2077.306
Z310 2077.390
Z311 2107.318
Z312 2073.780
Z313 2070.513
Z314 2054.238
Z315 2055.992
Z316 1992.466
Z317 1966.147
Z318 1967.781
Z319 1949.630
Z320 2112.965
Z321 2393.954
Z322 2614.178
Z323 2924.758
Z324 2936.960
Z325 2938.886
Z326 2939.529
Z327 2940.171
Z328 2849.620
Z329 2849.620
Z330 2863.749
Z331 2881.088
Z332 3037.144
Z333 3049.988

Z334 5269.022
Z335 5921.046
Z336 5904.100
Z337 5850.513
Z338 5767.613
Z339 5749.293
Z340 5729.141
Z341 5620.593
Z342 5602.273
Z343 5522.121
Z344 5523.953
Z345 5438.306
Z346 5290.369
Z347 5330.216
Z348 5270.675
Z349 5266.095
Z350 5173.141
Z351 5171.030
Z352 5190.029
Z353 5214.304
Z354 5304.018
Z355 5356.791
Z356 5402.176
Z357 5305.074
Z358 5155.648
Z359 5154.491
Z360 5178.788
Z361 5227.383
Z362 5304.133
Z363 5306.447
Z364 4689.566
Z365 4150.570
Z366 4686.763
Z367 4673.644
Z368 4798.859
Z369 4692.368
Z370 4720.392
Z371 4699.899
Z372 4658.642
Z373 4570.930
Z374 4532.631
Z375 4729.733
Z376 4736.272
Z377 4744.680
Z378 4744.680
Z379 4829.686
Z380 4977.279
Z381 5092.178
Z382 4719.458
Z383 4709.182
Z384 4750.284
Z385 4794.189
Z386 4681.146
Z387 4651.140
Z388 4709.901

Z334 3057.694
Z335 2953.014
Z336 2896.679
Z337 2966.296
Z338 2923.702
Z339 2968.586
Z340 2967.212
Z341 2831.184
Z342 2829.352
Z343 2847.214
Z344 2888.435
Z345 2861.413
Z346 3038.662
Z347 3053.318
Z348 3075.302
Z349 3033.624
Z350 2328.823
Z351 2316.158
Z352 2128.286
Z353 2255.996
Z354 2337.267
Z355 2200.057
Z356 2189.503
Z357 1948.858
Z358 2333.118
Z359 2314.992
Z360 2136.038
Z361 2250.969
Z362 2320.777
Z363 2354.331
Z364 2313.750
Z365 2530.469
Z366 2297.869
Z367 2176.411
Z368 2001.748
Z369 2333.366
Z370 2755.595
Z371 2759.015
Z372 2861.533
Z373 2801.368
Z374 2806.973
Z375 2818.182
Z376 2848.075
Z377 2982.590
Z378 2997.536
Z379 3003.141
Z380 3016.219
Z381 3033.034
Z382 2999.405
Z383 3008.746
Z384 3167.549
Z385 3315.142
Z386 2142.655
Z387 2172.660
Z388 2290.181

Z389 4692.398
Z390 4563.625
Z391 4718.460
Z392 4697.967
Z393 4644.325
Z394 4570.794
Z395 4741.965
Z396 4754.020
Z397 4725.692
Z398 4828.154
Z399 4972.203
Z400 4151.907
Z401 4151.353
Z402 4166.882
Z403 4141.925
Z404 4117.522
Z405 4324.942
Z406 4383.729
Z407 4168.346
Z408 4188.795
Z409 4132.852
Z410 4125.760
Z411 4329.047
Z412 4138.817
Z413 4055.390
Z414 3961.267
Z415 3911.354
Z416 4128.121
Z417 4149.512
Z418 4066.086
Z419 3966.259
Z420 4039.703
Z421 3231.681
Z422 3241.874
Z423 3390.889
Z424 3326.679
Z425 3410.788
Z426 3237.088
Z427 3206.674
Z428 3364.829
Z429 3399.974
Z430 3247.227
Z431 3305.352
Z432 3381.050
Z433 3505.411
Z434 3525.687
Z435 3577.054
Z436 3788.603
Z437 3871.060
Z438 3714.257
Z439 3860.246
Z440 3111.482
Z441 3124.291
Z442 3029.745
Z443 3025.475

Z444 3009.006
Z445 3001.686
Z446 2993.146
Z447 2996.196
Z448 2814.423
Z449 2815.033
Z450 2816.253
Z451 2749.155
Z452 2749.765
Z453 2733.296
Z454 2735.125
Z455 2709.506
Z456 2709.506
Z457 2689.377
Z458 2688.767
Z459 2636.412
Z460 2664.620
Z461 2620.450
Z462 2498.454
Z463 2489.914
Z464 2516.753
Z465 2480.155
Z466 2744.275
Z467 2968.901
Z468 2963.597
Z469 2962.451
Z470 3147.785
Z471 2958.630
Z472 2912.009
Z473 2916.977
Z474 2848.194
Z475 2854.308
Z476 2809.216
Z477 3736.225
Z478 3747.085
Z479 3522.272
Z480 3880.670
Z481 3876.325
Z482 2610.408
Z483 2589.117
Z484 2518.401
Z485 2465.174
Z486 2364.042
Z487 2249.224
Z488 2240.099
Z489 2062.168
Z490 2078.137
Z491 1942.787
Z492 1944.698
Z493 2060.648
Z494 2052.283
Z495 2053.044
Z496 2049.242
Z497 2626.488
Z498 2591.833

1753.412
1771.101
1746.702
1729.013
1671.065
1693.024
1650.326
1661.305
1680.215
1638.126
1616.777
1635.686
1611.897
1632.026
1606.407
1949.120
1949.950
1946.775
2185.276
2198.086
2193.206
2167.587
2344.481
2423.832
2437.698
2462.919
2516.035
2479.351
2392.607
2375.793
2371.590
2355.922
2357.069
2977.585
2941.745
2744.083
3013.424
3046.006
1942.887
1933.763
1907.909
1890.421
1597.671
1520.872
1518.591
1311.765
1311.765
1279.069
1263.022
1320.890
1407.574
1436.469
1468.405
1929.750
1915.224

Z499 2520.863 1888.662
Z500 2442.629 1884.097
Z501 2348.345 1598.760
Z502 2250.607 1535.928
Z503 1931.370 1278.888
Z504 2079.247 1295.390
Z505 2027.204 1441.998
Z506 2034.186 1410.264
Z507 2076.708 1322.046
Z508 2041.802 1322.680
Z509 2692.187 2452.242
Z510 2668.832 2483.104
Z511 2588.759 2564.011
Z512 2567.907 2588.200
Z513 2498.677 2776.706
Z514 2874.854 2901.820
Z515 3036.669 3010.252
Z516 3241.856 3130.362
Z518 3609.693 3123.690
Z519 3552.140 3105.339
Z520 3566.320 2991.902
Z521 3347.786 2989.400
Z522 3141.765 2796.724
Z523 3150.556 2779.766
Z524 3141.765 2684.955
Z525 2738.896 2354.653
Z526 2755.578 2367.999
Z527 2707.201 2465.588
Z528 2684.680 2493.113
Z529 2606.275 2577.357
Z530 2591.261 2598.209
Z531 2486.999 2776.706
Z532 2417.000 2640.628
Z533 2421.940 2619.896
Z534 2400.253 2623.232
Z535 2376.899 2642.416
Z536 2476.156 2779.208
Z537 2472.820 2758.355
Z538 2461.977 2805.065
Z539 2458.640 2780.876
Z540 2359.383 2800.894
Z541 2358.313 2816.688
Z542 2375.891 2814.703
Z543 2354.911 2846.740
Z544 2376.175 2849.291
Z545 2337.696 2880.134
Z546 2352.360 2882.179
Z547 2261.636 2807.899
Z548 2262.203 2792.022
Z549 2211.171 3056.254
Z550 2186.725 3048.621
Z551 2248.448 3081.151
Z552 2246.894 3122.879
Z553 2242.925 3095.095
Z554 2867.347 2915.166

Z555 2849.831 2910.161
Z556 2846.495 3012.755
Z557 2862.343 2996.073
Z558 2894.038 3040.280
Z559 3051.682 2990.234
Z560 3246.861 3096.164
Z561 3706.448 3377.255
Z562 3700.235 3382.486
Z563 3707.282 3407.282
Z564 3627.209 3454.826
Z565 3690.471 3390.667
Z566 3671.471 3380.375
Z567 3593.011 3320.536
Z568 3577.997 3338.052
Z569 3579.665 3291.343
Z570 3557.145 3277.997
Z571 3617.199 3102.837
Z572 3327.768 3001.912
Z573 3122.581 2786.715
Z574 3138.428 2762.526
Z575 3688.888 3368.500
Z576 2412.464 2641.478
Z577 2065.075 2074.544
Z578 2065.414 2049.425
Z579 2060.662 1975.425
Z580 2010.424 1915.343
Z581 2091.891 1851.187
Z582 2086.130 1965.300
Z583 2074.579 2048.407
Z584 2085.442 2039.581
Z585 2084.763 2076.581
Z586 2102.414 2080.315
Z587 2065.754 2092.874
Z588 1918.772 1922.471
Z589 1913.681 1934.691
Z590 1910.626 1897.352
Z591 1898.066 1894.976
Z592 1929.295 1861.031
Z593 1681.837 2115.618
Z594 1686.589 2100.003
Z595 1398.737 2220.847
Z596 1633.753 1872.804
Z597 1664.786 2097.740
Z598 1635.211 1857.509
Z599 1585.226 1873.169
Z600 1586.384 1897.687
Z601 1091.566 1831.574
Z602 1093.088 1821.795
Z603 1070.488 1813.146
Z604 1057.374 1827.934
Z605 1050.120 1843.558
Z606 1070.209 1849.139
Z607 1046.323 1890.317
Z608 1238.454 1623.975
Z609 1188.790 1615.884

2610 1194.091 1600.259
2611 1257.148 1523.251
2612 1274.726 1525.762
2613 1079.974 1474.424
2614 1092.809 1471.913
2615 1023.893 1449.034
2616 1021.103 1464.658
2617 1026.125 1423.085
2618 996.270 1442.895
2619 1326.343 1390.441
2620 1327.459 1384.023
2621 1307.091 1379.838
2622 1368.195 1396.300
2623 1370.427 1379.001
2624 1451.341 1403.833
2625 1452.736 1387.930
2626 1459.712 1404.112
2627 1480.917 1406.624
2628 1457.479 1417.784
2629 1462.781 1389.046
2630 1187.953 1175.879
2631 1370.427 1182.576
2632 1374.054 1169.462
2633 1378.240 1209.640
2634 1393.585 1211.314
2635 952.443 1816.000
2636 752.840 2028.197
2637 1133.787 2122.647
2638 1420.284 2127.055
2639 1450.508 2111.943
2640 1404.480 2108.850
2641 951.184 1792.703
2642 751.581 2035.124
2643 737.728 2033.235
2644 730.802 2159.168
2645 728.283 2181.835
2646 751.581 2157.908
2647 711.912 2156.019
2648 754.099 1875.189
2649 745.914 2013.715
2650 1424.223 2117.962
2651 1118.388 2234.941
2652 1120.058 2257.763
2653 1092.226 2236.611
2654 1093.340 2261.103
2655 1143.992 2259.989
2656 1128.964 2428.646
2657 1315.085 2624.452
2658 1220.402 3113.764
2659 1108.750 3242.672
2660 965.632 3459.886
2661 1189.952 3542.102
2662 1241.128 3804.856
2663 1780.075 3679.040
2664 2052.365 3652.750

2664 2610.090 3647.116
2665 2893.647 3596.414
2666 3098.772 3589.931
2667 3115.088 3576.495
2668 3073.818 3577.934
2669 2865.548 3613.446
2670 2865.548 3670.072
2671 2860.749 3873.063
2672 2843.953 3875.462
2673 2664.957 3872.103
2674 2875.626 4011.269
2675 2914.496 4032.864
2676 2877.545 4000.232
2677 2840.114 3888.419
2678 2883.784 3667.193
2679 2848.752 3617.765
2680 2663.997 3887.939
2681 2588.655 3873.543
2682 2532.989 3874.022
2683 2500.357 3878.341
2684 2482.601 3885.540
2685 2445.650 3920.571
2686 2438.932 4058.778
2687 2590.575 3891.778
2688 2530.589 3889.379
2689 2500.357 3895.617
2690 2483.561 3900.896
2691 2428.854 3920.091
2692 2607.367 3632.514
2693 2598.835 3633.580
2694 2589.236 3613.317
2695 2517.781 3657.043
2696 2503.916 3643.179
2697 2525.779 3690.105
2698 2611.633 3622.915
2699 2637.762 3628.781
2700 2667.091 3436.278
2701 2679.356 3467.206
2702 2655.359 3465.073
2703 2052.148 3662.317
2704 2047.022 3778.641
2705 1978.411 3929.665
2706 2003.253 4031.794
2707 1893.632 4067.677
2708 1880.619 4045.201
2709 1904.673 4095.280
2710 1979.199 4316.493
2711 2072.896 3663.831
2712 2071.431 3785.418
2713 1963.028 3936.303
2714 2023.089 4024.198
2715 1876.599 4074.005
2716 1777.715 3594.679
2717 1900.499 3375.155
2718 1712.974 3366.225

Z719 1682.464
Z720 1959.287
Z721 1977.891
Z722 2006.912
Z723 2051.561
Z724 1997.239
Z725 1976.402
Z726 1951.845
Z727 1713.718
Z728 1231.167
Z729 1200.065
Z730 1202.939
Z731 972.413
Z732 1386.420
Z733 1384.538
Z734 1418.411
Z735 1427.821
Z736 1618.829
Z737 1603.774
Z738 1683.753
Z739 1653.643
Z740 1725.153
Z741 1705.394
Z742 1728.917
Z743 1694.103
Z744 1679.989
Z745 1709.158
Z746 1653.643
Z747 1844.651
Z748 1307.309
Z749 1301.974
Z750 1339.322
Z751 1330.591
Z752 1364.544
Z753 1366.484
Z754 1369.394
Z755 1383.945
Z756 1506.175
Z757 1385.885
Z758 1378.125
Z759 1297.124
Z760 1356.298
Z761 1298.579
Z762 1291.788
Z763 1284.998
Z764 1277.237
Z765 1258.806
Z766 1313.130
Z767 1320.890
Z768 878.536
Z769 853.799
Z770 810.146
Z771 809.661
Z772 842.643
Z773 638.928

3439.896
3333.482
3336.459
3340.924
3281.392
3321.576
3356.551
3353.574
3348.365
3116.195
3106.923
3086.085
3064.444
3125.604
3106.786
3166.064
3144.423
3148.186
3123.722
2994.816
2991.993
2856.499
2856.499
2841.445
2838.622
2828.272
2809.453
2824.508
2431.201
2612.597
2629.088
2641.214
2668.376
2554.877
2543.721
2523.350
2446.714
2575.734
2527.230
2563.608
2643.639
2674.682
2779.935
2802.731
2817.768
2865.301
2809.522
2807.582
2781.875
2473.876
2476.301
2519.955
2535.476
2638.304
2631.513

Z774 832.458
Z775 814.511
Z776 838.278
Z777 792.200
Z778 792.685
Z779 850.889
Z780 880.476
Z781 959.729
Z782 951.218
Z783 805.821
Z784 758.301
Z785 961.856
Z786 686.667
Z787 639.147
Z788 651.913
Z789 656.169
Z790 671.772
Z791 873.200
Z792 942.707
Z793 1112.927
Z794 1187.398
Z795 1200.165
Z796 1249.813
Z797 1181.015
Z798 1107.253
Z799 954.055
Z800 868.944
Z801 641.275
Z802 634.182
Z803 618.578
Z804 672.482
Z805 735.605
Z806 787.380
Z807 954.055
Z808 970.367
Z809 1232.790
Z810 679.574
Z811 683.830
Z812 701.561
Z813 688.085
Z814 613.614
Z815 617.160
Z816 500.133
Z817 516.446
Z818 450.486
Z819 692.350
Z820 697.104
Z821 714.825
Z822 679.383
Z823 600.721
Z824 626.222
Z825 843.632
Z826 739.988
Z827 721.562
Z828 644.981

2695.053
2693.113
2706.209
2534.991
2516.559
2459.810
2456.900
3486.782
3640.689
3771.901
3788.923
3535.720
3910.914
3927.936
3985.386
4005.954
4022.267
3971.910
3991.769
4018.011
3998.152
3993.188
3823.676
3977.584
4002.408
3972.619
3949.214
4020.139
3990.351
3926.518
3891.765
3789.632
3765.518
3658.421
3474.015
3811.619
4032.196
4113.760
4200.289
4286.109
4286.109
4372.637
4386.822
4463.422
4314.479
4029.239
4109.630
4197.800
4279.488
4289.429
4387.972
3552.726
3398.412
3388.623
3404.170

Z829 519.457
Z830 362.840
Z831 346.717
Z832 274.742
Z833 273.015
Z834 262.075
Z835 131.944
Z836 126.186
Z837 188.518
Z838 850.374
Z839 758.484
Z840 724.508
Z841 638.862
Z842 517.170
Z843 347.463
Z844 335.459
Z845 252.262
Z846 185.621
Z847 278.753
Z848 119.394
Z849 126.017
Z850 1223.380
Z851 1237.600
Z852 1367.764
Z853 1400.579
Z854 1435.581
Z855 1474.025
Z856 1534.992
Z857 1582.345
Z858 1563.404
Z859 1611.941
Z860 1250.282
Z861 1263.896
Z862 1208.648
Z863 1243.650
Z864 1369.439
Z865 1391.316
Z866 1478.821
Z867 1547.732
Z868 1568.514
Z869 1571.796
Z870 1628.675
Z871 1584.922
Z872 1262.245
Z873 1255.682
Z874 1118.955
Z875 8445.334
Z876 8837.444
Z877 8842.431
Z878 8810.963
Z879 8827.446
Z880 8547.231
Z881 8329.951
Z882 8444.949
Z883 8439.340

Z884 3879.401
Z885 8310.471
Z886 8243.039
Z887 7884.902
Z888 8912.860
Z889 9167.601
Z890 9317.449
Z891 9531.732
Z892 9534.729
Z893 9516.747
Z894 9516.747
Z895 9365.401
Z896 9503.261
Z897 8998.273
Z898 9011.759
Z899 8686.589
Z900 8653.623
Z901 8517.261
Z902 9972.285
Z903 9940.817
Z904 9871.887
Z905 9858.401
Z906 9847.911
Z907 9731.030
Z908 9644.118
Z909 9476.288
Z910 9396.869
Z911 9315.951
Z912 9166.103
Z913 9103.167
Z914 9106.164
Z915 8989.282
Z916 8954.817
Z917 8920.352
Z918 8920.352
Z919 8914.358
Z920 8881.392
Z921 8843.930
Z922 8798.975
Z923 8786.987
Z924 8691.085
Z925 8654.469
Z926 8536.741
Z927 8503.775
Z928 8403.377
Z929 8347.392
Z930 8418.361
Z931 8413.866
Z932 8455.823
Z933 8476.802
Z934 8475.304
Z935 8287.994
Z936 8279.003
Z937 8270.012
Z938 7992.793

3814.396
3673.539
3673.539
3688.523
3580.633
3594.119
3604.609
3613.599
3797.912
3995.712
4019.688
3986.721
4025.681
3186.533
3185.034
2934.788
2939.283
2945.277
3099.621
3080.141
3029.192
3018.703
3009.712
2924.299
2858.366
2730.995
2680.046
2554.174
2375.855
2193.040
2109.126
2082.153
2019.217
1914.323
1845.393
1731.509
1530.712
1527.715
1526.217
1679.062
1688.053
1689.994
1736.004
1882.855
1894.843
1901.815
2263.469
2300.931
2476.253
2711.515
2692.034
2781.943
2768.457
2750.475
2154.080

Z939 7982.304
Z940 7847.440
Z942 7706.583
Z943 7610.681
Z944 7427.866
Z945 7454.839
Z946 7376.918
Z947 7303.492
Z948 7197.100
Z949 7173.125
Z950 7144.653
Z951 6972.328
Z952 6921.380
Z953 6897.276
Z954 6934.317
Z955 6913.813
Z956 6886.915
Z957 6780.523
Z958 6892.909
Z959 6927.374
Z960 7364.930
Z961 8238.405
Z962 8295.341
Z963 8321.992
Z964 8358.940
Z965 8406.790
Z966 8419.510
Z967 8466.755
Z968 8550.546
Z969 8830.243
Z970 8785.689
Z971 8924.076
Z972 8659.486
Z973 8647.725
Z974 8979.758
Z975 9955.658
Z976 9889.434
Z977 9875.038
Z978 9858.722
Z979 9741.630
Z980 9634.136
Z981 9483.453
Z982 8496.207
Z983 8463.383
Z984 8420.905
Z985 8398.218
Z986 8328.709
Z987 8405.942
Z988 8504.413
Z989 8542.546
Z990 8691.218
Z991 8790.172
Z992 8799.343
Z993 8844.235
Z994 8880.920

Z939 2155.578
Z940 2163.071
Z942 2008.727
Z943 1959.278
Z944 1670.071
Z945 1951.785
Z946 1875.363
Z947 1923.314
Z948 1834.904
Z949 2046.189
Z950 2059.676
Z951 1753.986
Z952 1773.466
Z953 1787.527
Z954 1931.124
Z955 1943.380
Z956 1933.803
Z957 1989.247
Z958 2248.484
Z959 2354.876
Z960 2722.004
Z961 3655.031
Z962 3688.345
Z963 3654.426
Z964 3824.022
Z965 3803.428
Z966 3959.699
Z967 3960.911
Z968 4216.366
Z969 4178.000
Z970 3973.797
Z971 3581.982
Z972 2961.203
Z973 2906.920
Z974 3175.623
Z975 3061.745
Z976 3019.515
Z977 3007.038
Z978 2996.481
Z979 2909.142
Z980 2869.792
Z981 2714.309
Z982 2683.157
Z983 2490.077
Z984 2316.787
Z985 2267.068
Z986 1912.766
Z987 1911.317
Z988 1898.284
Z989 1754.439
Z990 1703.273
Z991 1696.032
Z992 1515.019
Z993 1511.640
Z994 1512.123

Z995 8936.913
Z996 8936.913
Z997 8971.185
Z998 8984.701
Z999 9110.203
Z1000 9119.375
Z1001 9181.643
Z1002 9331.281
Z1003 9355.245
Z1004 9503.814
Z1005 9497.660
Z1006 9560.077
Z1007 9523.154
Z1008 9527.550
Z1009 9320.960
Z1010 9167.995
Z1011 8927.120
Z1012 9893.690
Z1013 9885.230
Z1014 9877.334
Z1015 10079.810
Z1016 10115.906
Z1017 10238.859
Z1018 10334.175
Z1019 10481.379
Z1020 10712.056
Z1021 10263.111
Z1022 10503.939
Z1023 9872.566
Z1024 9921.428
Z1025 9863.771
Z1026 9859.862
Z1027 10070.946
Z1028 10124.694
Z1029 10335.778
Z1030 10485.295
Z1031 10275.189
Z1032 10399.276
Z1033 10386.767
Z1034 10408.658
Z1035 10128.772
Z1036 10084.991
Z1037 10005.246
Z1038 9984.138
Z1039 10368.004
Z1040 10421.949
Z1041 10145.190
Z1042 10101.409
Z1043 10013.846
Z1044 9991.956
Z1045 9972.411
Z1046 9388.526
Z1047 9370.051
Z1048 9338.934
Z1049 9308.790

Z995 1838.912
Z996 1912.283
Z997 2015.581
Z998 2069.161
Z999 2098.606
Z1000 2193.698
Z1001 2364.574
Z1002 2542.691
Z1003 4012.678
Z1004 4045.204
Z1005 3995.095
Z1006 3800.813
Z1007 3632.025
Z1008 3588.948
Z1009 3576.641
Z1010 3573.124
Z1011 3563.454
Z1012 3890.537
Z1013 4098.089
Z1014 4180.434
Z1015 4156.746
Z1016 4160.130
Z1017 4049.021
Z1018 4043.945
Z1019 4038.305
Z1020 4030.973
Z1021 4024.205
Z1022 3803.117
Z1023 3914.071
Z1024 3877.913
Z1025 4096.814
Z1026 4179.880
Z1027 4135.904
Z1028 4173.039
Z1029 4062.611
Z1030 4058.702
Z1031 4034.271
Z1032 3514.598
Z1033 3493.490
Z1034 3342.601
Z1035 3219.076
Z1036 3193.276
Z1037 3129.168
Z1038 3114.314
Z1039 3488.799
Z1040 3324.620
Z1041 3200.313
Z1042 3178.422
Z1043 3112.750
Z1044 3093.987
Z1045 3133.859
Z1046 2692.684
Z1047 2712.132
Z1048 2718.938
Z1049 2757.834

Z1050 9260.170 2813.261
Z1051 9234.888 2810.344
Z1052 9061.801 2500.149
Z1053 8985.955 2536.128
Z1054 8954.838 2554.604
Z1055 8858.571 2602.251
Z1056 8966.507 2570.162
Z1057 8995.679 2553.631
Z1058 9063.746 2519.597
Z1059 9230.026 2787.006
Z1060 9257.253 2836.598
Z1061 9290.314 2744.221
Z1062 9330.183 2708.242
Z1063 9373.940 2733.524
Z1064 9405.057 2704.353
Z1065 8929.960 1728.238
Z1066 9161.959 1686.281
Z1067 9361.256 1649.877
Z1068 9378.532 1630.132
Z1069 9369.894 1575.835
Z1070 9359.405 1555.473
Z1071 9388.404 1573.367
Z1072 9397.043 1626.430
Z1073 9371.128 1661.600
Z1074 9157.023 1664.068
Z1075 8927.492 1715.281
Z1076 8652.302 1677.026
Z1077 8501.132 1426.516
Z1078 8349.963 1433.304
Z1079 8299.984 1354.325
Z1080 8292.449 1025.669
Z1081 8453.589 1006.625
Z1082 8635.238 1680.483
Z1083 8674.790 1673.158
Z1084 8494.607 1405.080
Z1085 8349.581 1416.799
Z1086 8274.870 1358.203
Z1087 8274.870 1025.669
Z1088 8262.849 2777.919
Z1089 8215.491 2792.946
Z1090 8140.356 2797.045
Z1091 8040.175 2809.340
Z1092 7978.701 2809.795
Z1093 7899.922 2825.277
Z1094 8018.317 2814.804
Z1095 8017.862 2830.286
Z1096 8064.765 2960.066
Z1097 8256.019 2762.437
Z1098 8219.134 2814.349
Z1099 8133.980 2779.285
Z1100 8034.711 2795.679
Z1101 7975.058 2794.312
Z1102 8029.246 2827.099
Z1103 7980.853 2168.839
Z1104 6701.957 2019.757

Z1105 6577.390 1808.811
Z1106 6717.415 2004.300
Z1107 6679.226 2026.122
Z1108 7877.621 1632.415
Z1109 7858.527 1548.764
Z1110 7845.798 1501.483
Z1111 7863.983 1571.496
Z1112 7950.362 1527.851
Z1113 8067.655 1500.574
Z1114 8089.477 1483.298
Z1115 8071.292 1523.305
Z1116 7956.726 1547.855
Z1117 7884.896 1565.131
Z1118 7829.431 1502.392
Z1119 7944.906 1506.029
Z1120 7713.956 2023.394
Z1121 7695.771 1991.570
Z1122 7609.392 1975.204
Z1123 7603.936 1939.743
Z1124 7433.906 1686.061
Z1125 7422.995 1650.601
Z1126 7458.456 1964.293
Z1127 7442.999 1937.015
Z1128 7362.984 1857.910
Z1129 7313.885 1941.562
Z1130 7202.956 1825.177
Z1131 7202.047 1806.992
Z1132 7219.322 1820.631
Z1133 7180.224 2057.946
Z1134 7148.401 2070.675
Z1135 6957.457 1737.889
Z1136 6909.267 1758.802
Z1137 6888.354 1773.350
Z1138 6940.182 1943.380
Z1139 6921.087 1919.739
Z1140 6920.395 1956.368
Z1141 6883.005 1922.813
Z1142 7770.945 1650.936
Z1143 7677.932 1631.217
Z1144 7644.448 1493.558
Z1145 7630.682 1490.954
Z1146 7581.571 1512.161
Z1147 7564.457 1509.184
Z1148 7501.953 1502.859
Z1149 7559.620 1498.023
Z1150 7586.036 1524.438
Z1151 7627.334 1477.560
Z1152 7664.167 1634.937
Z1153 7770.201 1636.053
Z1154 7683.784 1128.452
Z1155 7700.518 1124.514
Z1156 7757.610 1058.563
Z1157 7681.815 1113.686
Z1158 7699.533 1107.780
Z1159 6948.454 2351.702

Z1160 6758.926
Z1161 6583.541
Z1162 6481.705
Z1163 6198.799
Z1164 6750.439
Z1166 6871.589
Z1167 6583.715
Z1168 6474.204
Z1169 6482.336
Z1170 6200.425
Z1171 6188.498
Z1172 7344.787
Z1173 7169.805
Z1174 7333.070
Z1175 7369.785
Z1176 7382.283
Z1177 7392.606
Z1178 7408.953
Z1179 7505.177
Z1180 7597.685
Z1181 7613.660
Z1182 7387.034
Z1183 7413.783
Z1184 7499.604
Z1185 7590.626
Z1186 7458.365
Z1187 7416.012
Z1188 7401.151
Z1189 7326.847
Z1190 7314.959
Z1191 7352.854
Z1192 7304.185
Z1193 7322.761
Z1194 7404.495
Z1195 7421.213
Z1196 7473.969
Z1197 7495.146
Z1198 7531.183
Z1199 7568.707
Z1200 7600.286
Z1201 7640.038
Z1202 7534.527
Z1203 7540.100
Z1204 7507.034
Z1205 7470.997
Z1206 7475.455
Z1207 7507.777
Z1208 7543.443
Z1209 7572.050
Z1210 7604.744
Z1211 7508.520
Z1212 7543.072
Z1213 10068.606
Z1214 8288.319
Z1215 5178.539

2139.543
2136.714
2140.957
2112.400
2157.930
2233.296
2157.397
2121.616
2160.108
2127.038
2097.220
2680.455
2739.824
2669.518
2714.826
2719.513
2709.431
2710.545
2742.496
2687.883
2665.220
2696.799
2693.084
2729.864
2677.109
2898.534
2908.565
2912.281
2928.999
2936.801
3038.226
2937.915
2916.367
2926.027
2922.312
2895.562
2894.819
2931.600
2918.968
2910.794
2905.222
2941.631
3057.173
3063.860
3072.777
2906.336
2891.475
2938.287
2928.256
2919.711
3075.378
3067.576
3203.112
2740.040
4401.883

Z1216 5187.719
Z1217 4020.475
Z1218 3629.276
Z1219 3447.799
Z1220 3459.803
Z1221 3251.493
Z1222 3216.186
Z1223 3167.463
Z1224 3132.156
Z1225 1200.781
Z1226 1205.148
Z1227 1183.215
Z1228 1206.604
Z1229 1215.435
Z1230 1183.118
Z1231 1182.341
Z1232 1104.266
Z1233 1124.833
Z1234 1099.125
Z1235 1085.803
Z1236 1096.788
Z1237 1090.828
Z1238 1094.684
Z1239 4737.038
Z1240 4776.834
Z1241 4690.056
Z1242 4725.431
Z1243 6494.224
Z1244 6594.205
Z1245 6611.204
Z1246 7857.250
Z1247 7712.059
Z1248 7140.051
S1 7633.432

[RESERVOIRS]

;ID Head
S1 10

Pattern

;

[PUMPS]

;ID Node1
P1 S1
P2 S1
P3 S1
P4 S1
P5 S1
P6 S1
P7 S1

Node2

Z1
Z1
Z1
Z1
Z1
Z1
Z1

Parameters
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;

[PIPES]

;ID	Node1	Node2	Length	Diameter	Roughness	MinorLoss	Status
G20	Z1	Z2	30	600	0.15	0	Open ;
G1	Z2	Z3	577.2	600	0.15	0	Open ;
R3	Z2	Z4	18.5	400	0.15	1.8	Open ;
R4	Z4	Z5	213.4	400	0.15	0	Open ;
R5	Z5	Z6	18.6	400	0.15	0	Open ;
R6	Z6	Z7	50	400	0.15	0	Open ;
R7	Z7	Z8	32.8	400	0.15	0	Open ;
R8	Z8	Z9	10	400	0.15	0	Open ;
R9	Z9	Z10	77.7	400	0.15	0	Open ;
R10	Z10	Z11	27.2	400	0.15	0	Open ;
R11	Z11	Z12	113.0	400	0.15	0	Open ;
R12	Z12	Z13	80.80	400	0.15	0	Open ;
R13	Z13	Z14	39.50	400	0.15	0	Open ;
R14	Z14	Z15	100.7	400	0.15	0	Open ;
R15	Z15	Z16	53.2	400	0.15	0	Open ;
R16	Z16	Z17	37.1	400	0.15	0	Open ;
R17	Z17	Z29	27.4	400	0.15	0	Open ;
R18	Z29	Z18	29.8	400	0.15	0	Open ;
R19	Z18	Z19	37.40	400	0.15	0	Open ;
R20	Z19	Z20	161.3	400	0.15	0	Open ;
R21	Z20	Z21	49.5	400	0.15	0	Open ;
R22	Z21	Z22	92.5	400	0.15	0	Open ;
R23	Z22	Z23	139.4	400	0.15	0	Open ;
R24	Z23	Z24	56.4	400	0.15	0	Open ;
R25	Z24	Z25	103.7	400	0.15	0	Open ;
R26	Z25	Z26	297.1	400	0.15	0	Open ;
R27	Z26	Z27	13	400	0.15	0	Open ;
R28	Z27	Z28	449.3	400	0.15	0	Open ;
R56	Z4	Z56	5	96.8	0.015	0	Open ;
R57	Z5	Z57	5	96.8	0.015	0	Open ;
R58	Z6	Z58	5	96.8	0.015	0	Open ;
R59	Z7	Z59	5	96.8	0.015	0	Open ;
R60	Z8	Z60	5	96.8	0.015	0	Open ;
R61	Z9	Z61	5	96.8	0.015	0	Open ;
R62	Z10	Z62	5	96.8	0.015	0	Open ;

R63	Z11	Z63	5	96.8	0.015	0	Open ;
R64	Z12	Z64	5	98.6	0.015	0	Open ;
R65	Z13	Z65	5	96.8	0.015	0	Open ;
R66	Z14	Z66	5	96.8	0.015	0	Open ;
R67	Z15	Z67	5	96.8	0.015	0	Open ;
R68	Z16	Z68	5	96.8	0.015	0	Open ;
R69	Z17	Z69	5	96.8	0.015	0	Open ;
R29	Z29	Z72	9	141	0.015	1.8	Open ;
R71	Z18	Z70	5	96.8	0.015	0	Open ;
R72	Z19	Z71	5	96.8	0.015	0	Open ;
R73	Z20	Z73	5	96.8	0.015	0	Open ;
R74	Z21	Z74	5	96.8	0.015	0	Open ;
R75	Z22	Z75	5	96.8	0.015	0	Open ;
R76	Z23	Z76	5	96.8	0.015	0	Open ;
R77	Z24	Z77	5	96.8	0.015	0	Open ;
R78	Z25	Z78	5	96.8	0.015	0	Open ;
R79	Z26	Z79	5	96.8	0.015	0	Open ;
R80	Z27	Z80	5	96.8	0.015	0	Open ;
R81	Z28	Z81	5	96.8	0.015	0	Open ;
R30	Z72	Z82	9.7	141	0.015	1.8	Open ;
R31	Z82	Z83	159.2	141.0	0.015	0	Open ;
R32	Z83	Z84	38.2	141.0	0.015	0	Open ;
R33	Z84	Z85	117.3	141.0	0.015	0	Open ;
R34	Z85	Z86	113.7	141.0	0.015	0	Open ;
R35	Z86	Z87	27.4	141.0	0.015	0	Open ;
R36	Z87	Z88	117.2	141.0	0.015	0	Open ;
R37	Z88	Z89	50.80	141.0	0.015	0	Open ;
R38	Z89	Z90	35.05	141.0	0.015	0	Open ;
R91	Z82	Z91	5	96.8	0.015	0	Open ;
R92	Z83	Z92	5	96.8	0.015	0	Open ;
R93	Z84	Z93	5	96.8	0.015	0	Open ;
R94	Z85	Z94	5	96.8	0.015	0	Open ;
R95	Z86	Z95	5	96.8	0.015	0	Open ;
R96	Z87	Z96	5	96.8	0.015	0	Open ;
R97	Z88	Z97	5	96.8	0.015	0	Open ;
R98	Z89	Z98	5	96.8	0.015	0	Open ;
R39	Z72	Z99	60.2	141.0	0.015	0	Open ;
R40	Z99	Z100	309.8	141.0	0.015	0	Open ;

R41	Z100	Z101	151.6	141.0	0.015	0	Open	;
R42	Z101	Z102	575	141.0	0.015	0	Open	;
R43	Z102	Z103	103.5	141.0	0.015	0	Open	;
R44	Z103	Z104	144.7	141.0	0.015	0	Open	;
R45	Z104	Z105	66.4	141.0	0.015	0	Open	;
R46	Z105	Z106	256.8	141.0	0.015	0	Open	;
R47	Z106	Z107	110.74	141.0	0.015	0	Open	;
R107	Z106	Z108	5	96.8	0.015	0	Open	;
R108	Z105	Z109	5	96.8	0.015	0	Open	;
R109	Z104	Z110	5	96.8	0.015	0	Open	;
R110	Z103	Z111	5	96.8	0.015	0	Open	;
R111	Z102	Z112	5	96.8	0.015	0	Open	;
R112	Z101	Z113	5	96.8	0.015	0	Open	;
R113	Z100	Z114	5	96.8	0.015	0	Open	;
R114	Z99	Z115	5	96.8	0.015	0	Open	;
R49	Z28	Z116	80	400	0.15	0	Open	;
R50	Z116	Z117	380.3	400	0.15	0	Open	;
R51	Z117	Z118	195.4	400	0.15	0	Open	;
R52	Z118	Z119	163.7	400	0.15	0	Open	;
R53	Z119	Z120	336.9	400	0.15	0	Open	;
R54	Z120	Z121	169.6	400	0.15	0	Open	;
R55	Z117	Z122	16.1	141.0	0.015	1.8	Open	;
R120	Z122	Z123	84.1	141.0	0.015	0	Open	;
R121	Z123	Z124	71.9	141.0	0.015	0	Open	;
R122	Z122	Z125	15.04	96.8	0.015	0	Open	;
R123	Z123	Z126	13.85	96.8	0.015	0	Open	;
R124	Z107	Z127	5	96.8	0.015	0	Open	;
R125	Z128	Z124	5	96.8	0.015	0	Open	;
R126	Z124	Z129	26	141.0	0.015	0	Open	;
R127	Z129	Z130	5	96.8	0.015	0	Open	;
R82	Z30	Z31	61.5	400	0.15	0	Open	;
R83	Z31	Z32	13.8	400	0.15	0	Open	;
R84	Z121	Z30	623	400	0.15	0	Open	;
R85	Z32	Z33	322.7	400	0.15	0	Open	;
R86	Z33	Z34	261.2	400	0.15	0	Open	;
R87	Z34	Z35	231.7	400	0.15	0	Open	;
R88	Z35	Z36	34.2	400	0.15	0	Open	;
R89	Z36	Z37	49.8	400	0.15	0	Open	;

R90	Z37	Z38	11	400	0.15	0	Open	;
R99	Z38	Z39	127.3	400	0.15	0	Open	;
R100	Z39	Z40	3.8	400	0.15	1.8	Open	;
R101	Z31	Z43	14.3	141.0	0.015	1.8	Open	;
R102	Z43	Z45	243.6	141.0	0.015	0	Open	;
R103	Z45	Z48	218.5	141.0	0.015	0	Open	;
R104	Z45	Z46	5	96.8	0.015	0	Open	;
R105	Z43	Z44	5	96.8	0.015	0	Open	;
R106	Z30	Z42	5	96.8	0.015	0	Open	;
R115	Z118	Z49	5	96.8	0.015	0	Open	;
R116	Z119	Z50	5	141	0.015	0	Open	;
R117	Z120	Z51	5	96.8	0.015	0	Open	;
R118	Z121	Z52	12.1	141.0	0.015	1.8	Open	;
R119	Z52	Z53	5.5	141.0	0.015	1.8	Open	;
R128	Z53	Z54	140.8	141.0	0.015	0	Open	;
R129	Z53	Z131	5	96.8	0.015	0	Open	;
R130	Z53	Z55	5	96.8	0.015	0	Open	;
G131	Z3	Z132	618	600	0.15	0	Open	;
R131	Z132	Z133	4	141.0	0.015	1.8	Open	;
R132	Z133	Z134	19.7	141.0	0.015	1.8	Open	;
R133	Z134	Z135	81.5	141.0	0.015	0	Open	;
R134	Z135	Z136	81.4	141.0	0.015	0	Open	;
R135	Z136	Z137	75	141.0	0.015	0	Open	;
R136	Z133	Z138	98.5	141.0	0.015	0	Open	;
R137	Z138	Z139	90.2	141.0	0.015	0	Open	;
R138	Z139	Z140	70	141.0	0.015	0	Open	;
R139	Z140	Z141	15.2	141.0	0.015	0	Open	;
R140	Z141	Z142	97	141.0	0.015	0	Open	;
R141	Z141	Z157	5	96.8	0.015	0	Open	;
R142	Z140	Z158	5	96.8	0.015	0	Open	;
R143	Z139	Z159	5	96.8	0.015	0	Open	;
R144	Z138	Z160	5	96.8	0.015	0	Open	;
R145	Z134	Z161	5	96.8	0.015	0	Open	;
R146	Z135	Z162	5	96.8	0.015	0	Open	;
R147	Z136	Z163	5	96.8	0.015	0	Open	;
G148	Z132	Z143	701.3	600	0.15	0	Open	;
G149	Z143	Z147	1433.79	600	0.15	0	Open	;
R149	Z147	Z145	5.8	141.0	0.015	1.8	Open	;

R150	Z145	Z148	5.7	141.0	0.015	0	Open	;
R151	Z148	Z149	120	141.0	0.015	0	Open	;
R152	Z149	Z150	76.8	141.0	0.015	0	Open	;
R153	Z150	Z151	47.6	141.0	0.015	0	Open	;
R154	Z151	Z152	12.7	141.0	0.015	1.8	Open	;
R155	Z152	Z153	131	141.0	0.015	0	Open	;
R156	Z151	Z154	189.1	141.0	0.015	0	Open	;
R157	Z154	Z155	78.3	141.0	0.015	0	Open	;
R158	Z155	Z156	31	141.0	0.015	0	Open	;
R159	Z145	Z146	17.77	141.0	0.015	1.8	Open	;
R160	Z146	Z144	90.77	141.0	0.015	0	Open	;
R161	Z146	Z166	5	96.8	0.015	0	Open	;
R162	Z148	Z167	5	96.8	0.015	0	Open	;
R163	Z149	Z168	5	96.8	0.015	0	Open	;
R164	Z150	Z169	5	96.8	0.015	0	Open	;
R165	Z152	Z170	5	96.8	0.015	0	Open	;
R166	Z153	Z171	5	96.8	0.015	0	Open	;
R167	Z153	Z172	5	96.8	0.015	0	Open	;
R168	Z154	Z173	5	96.8	0.015	0	Open	;
R169	Z155	Z174	5	96.8	0.015	0	Open	;
G170	Z147	Z175	1472.3	600	0.15	0	Open	;
G171	Z175	Z176	219.9	400	0.15	1.8	Open	;
G172	Z176	Z177	220.58	400	0.15	0	Open	;
R172	Z177	Z178	10.81	197.4	0.015	1.8	Open	;
R173	Z178	Z179	171.80	197.4	0.015	0	Open	;
R174	Z179	Z180	60	197.4	0.015	0	Open	;
R175	Z180	Z181	50	197.4	0.015	0	Open	;
R176	Z181	Z182	13.6	197.4	0.015	0	Open	;
R177	Z182	Z183	82.8	197.4	0.015	0	Open	;
R178	Z183	Z184	11.4	141.0	0.015	1.8	Open	;
R179	Z184	Z185	89.8	141.0	0.015	0	Open	;
R180	Z185	Z186	109.2	141.0	0.015	0	Open	;
R181	Z183	Z187	223.6	141.0	0.015	1.8	Open	;
R182	Z187	Z188	94.3	141.0	0.015	0	Open	;
R183	Z188	Z189	22.2	141.0	0.015	1.8	Open	;
R184	Z189	Z190	15.82	141.0	0.015	0	Open	;
R185	Z188	Z191	32.5	141.0	0.015	0	Open	;
R186	Z191	Z192	87	141.0	0.015	0	Open	;

R187	Z192	Z193	10.5	141.0	0.015	0	Open	;
R188	Z178	Z194	17.19	96.8	0.015	0	Open	;
R189	Z179	Z195	5	96.8	0.015	0	Open	;
R190	Z180	Z196	5	96.8	0.015	0	Open	;
R191	Z181	Z197	5	96.8	0.015	0	Open	;
R192	Z182	Z198	5	96.8	0.015	0	Open	;
R193	Z184	Z199	5	96.8	0.015	0	Open	;
R194	Z185	Z200	5	96.8	0.015	0	Open	;
R195	Z187	Z201	5	96.8	0.015	0	Open	;
R196	Z189	Z202	5	96.8	0.015	0	Open	;
R197	Z191	Z203	5	96.8	0.015	0	Open	;
R198	Z192	Z204	5	96.8	0.015	0	Open	;
G199	Z177	Z205	379.4	400	0.15	0	Open	;
G200	Z205	Z206	385	400	0.15	1.8	Open	;
G201	Z206	Z207	302.8	500	0.15	0	Open	;
G202	Z207	Z208	873.57	500	0.15	0	Open	;
G203	Z208	Z209	159.2	500	0.15	0	Open	;
R200	Z207	Z210	2.6	141.0	0.015	1.8	Open	;
R201	Z210	Z211	5.7	141.0	0.015	1.8	Open	;
R202	Z211	Z212	52.01	141.0	0.015	0	Open	;
R203	Z212	Z213	6.8	141.0	0.015	0	Open	;
R204	Z210	Z214	4	141.0	0.015	0	Open	;
R205	Z214	Z215	47.3	141.0	0.015	0	Open	;
R206	Z212	Z216	5	96.8	0.015	0	Open	;
R207	Z211	Z217	5	96.8	0.015	0	Open	;
R208	Z214	Z218	21.86	96.8	0.015	0	Open	;
R209	Z208	Z219	3.7	197.4	0.015	1.8	Open	;
R210	Z219	Z220	46.2	197.4	0.015	0	Open	;
R211	Z220	Z221	22.1	197.4	0.015	0	Open	;
R212	Z221	Z222	4	197.4	0.015	0	Open	;
R213	Z222	Z223	83.2	197.4	0.015	0	Open	;
R214	Z223	Z224	144.3	197.4	0.015	0	Open	;
R215	Z224	Z225	18.9	197.4	0.015	0	Open	;
R216	Z225	Z226	77.3	197.4	0.015	0	Open	;
R217	Z226	Z227	137.1	197.4	0.015	0	Open	;
R218	Z227	Z231	104.6	141.0	0.015	1.8	Open	;
R219	Z231	Z232	344.4	141.0	0.015	0	Open	;
R220	Z232	Z233	51.3	141.0	0.015	0	Open	;

R221	Z227	Z228	228.1	141.0	0.015	1.8	Open	;
R222	Z228	Z229	98.5	141.0	0.015	0	Open	;
R223	Z229	Z230	78.6	141.0	0.015	0	Open	;
R224	Z221	Z234	539.7	141.0	0.015	1.8	Open	;
R225	Z234	Z235	26	141.0	0.015	0	Open	;
R226	Z235	Z236	70.4	141.0	0.015	0	Open	;
R48	Z143	Z164	271.5	197.4	0.015	1.8	Open	;
R70	Z164	Z41	3	197.4	0.015	0	Open	;
R148	Z41	Z253	23	197.4	0.015	0	Open	;
R170	Z47	Z237	119.4	197.4	0.015	0	Open	;
R171	Z237	Z238	16.2	141	0.015	1.8	Open	;
R199	Z238	Z239	153.6	141	0.015	0	Open	;
R227	Z239	Z240	32.5	141	0.015	0	Open	;
R228	Z240	Z241	33.8	141	0.015	0	Open	;
R229	Z241	Z242	34.3	141	0.015	0	Open	;
R230	Z242	Z243	45.9	141	0.015	0	Open	;
R231	Z243	Z244	131.1	141	0.015	0	Open	;
R232	Z244	Z245	20.3	141	0.015	0	Open	;
R233	Z245	Z246	16.4	141	0.015	0	Open	;
R234	Z246	Z268	18.2	141.0	0.015	1.8	Open	;
R235	Z247	Z248	70.4	141.0	0.015	0	Open	;
R236	Z248	Z249	37.8	141.0	0.015	0	Open	;
R237	Z246	Z250	3	141.0	0.015	1.8	Open	;
R238	Z250	Z251	103	141.0	0.015	0	Open	;
R239	Z41	Z252	5	96.8	0.015	0	Open	;
R240	Z253	Z47	27.7	197.4	0.015	0	Open	;
R241	Z253	Z254	5	96.8	0.015	0	Open	;
R242	Z253	Z255	5	141.0	0.015	0	Open	;
R243	Z47	Z256	5	96.8	0.015	0	Open	;
R244	Z237	Z257	5	96.8	0.015	0	Open	;
R245	Z238	Z258	5	96.8	0.015	0	Open	;
R246	Z239	Z259	5	96.8	0.015	0	Open	;
R247	Z240	Z260	5	96.8	0.015	0	Open	;
R248	Z241	Z261	5	96.8	0.015	0	Open	;
R249	Z242	Z262	5	96.8	0.015	0	Open	;
R250	Z242	Z263	5	96.8	0.015	0	Open	;
R251	Z243	Z265	5	96.8	0.015	0	Open	;
R252	Z243	Z264	5	96.8	0.015	0	Open	;

R253	Z244	Z266	5	96.8	0.015	0	Open	;
R254	Z245	Z267	5	96.8	0.015	0	Open	;
R255	Z268	Z247	70.4	141.0	0.015	0	Open	;
R256	Z268	Z271	5	96.8	0.015	0	Open	;
R257	Z247	Z270	5	96.8	0.015	0	Open	;
R258	Z248	Z269	5	96.8	0.015	0	Open	;
R259	Z250	Z272	5	96.8	0.015	0	Open	;
R260	Z251	Z273	5	96.8	0.015	0	Open	;
R261	Z251	Z274	5	96.8	0.015	0	Open	;
R263	Z165	Z275	8	141.0	0.015	0	Open	;
R264	Z275	Z276	6	141.0	0.015	0	Open	;
R265	Z276	Z277	136.6	141.0	0.015	0	Open	;
R266	Z277	Z278	40	141.0	0.015	0	Open	;
R267	Z278	Z279	14.2	141.0	0.015	0	Open	;
R268	Z279	Z280	67.4	141.0	0.015	0	Open	;
R269	Z165	Z281	589.9	141	0.015	1.8	Open	;
R270	Z281	Z282	7.7	141.0	0.015	1.8	Open	;
R271	Z281	Z291	382.8	400	0.15	0	Open	;
R272	Z284	Z286	145.2	141.0	0.015	1.8	Open	;
R273	Z286	Z287	120.5	141.0	0.015	0	Open	;
R274	Z287	Z288	116.4	141.0	0.015	0	Open	;
R275	Z288	Z289	133.1	141.0	0.015	0	Open	;
R276	Z289	Z290	17.6	141.0	0.015	0	Open	;
R277	Z291	Z284	7	141	0.015	1.8	Open	;
R278	Z284	Z283	184.7	141.0	0.015	1.8	Open	;
R279	Z284	Z285	5	141	0.015	0	Open	;
R280	Z285	Z1245	300	141	0.015	0	Open	;
R281	Z291	Z293	557.27	400	0.15	0	Open	;
R282	Z275	Z295	5	96.8	0.015	0	Open	;
R283	Z276	Z296	5	96.8	0.015	0	Open	;
R284	Z277	Z297	5	96.8	0.015	0	Open	;
R285	Z278	Z298	5	96.8	0.015	0	Open	;
R286	Z279	Z299	5	96.8	0.015	0	Open	;
R287	Z282	Z300	5	96.8	0.015	0	Open	;
R288	Z282	Z301	5	96.8	0.015	0	Open	;
R289	Z285	Z302	5	96.8	0.015	0	Open	;
R290	Z286	Z306	5	96.8	0.015	0	Open	;
R291	Z287	Z305	5	96.8	0.015	0	Open	;

R292	Z288	Z304	5	96.8	0.015	0	Open	;
R293	Z289	Z303	5	96.8	0.015	0	Open	;
R294	Z281	Z294	325.5	400	0.15	0	Open	;
R295	Z294	Z307	2.8	197.4	0.015	1.8	Open	;
R296	Z307	Z308	593.6	141	0.015	1.8	Open	;
R297	Z308	Z321	5	96.8	0.015	0	Open	;
R298	Z308	Z309	338	141.0	0.015	0	Open	;
R299	Z309	Z310	7.5	141.0	0.015	0	Open	;
R300	Z310	Z311	59.00	141.0	0.015	0	Open	;
R301	Z311	Z313	44.3	141.0	0.015	0	Open	;
R302	Z313	Z314	9.8	141.0	0.015	0	Open	;
R303	Z314	Z316	70	141.0	0.015	0	Open	;
R304	Z311	Z317	419.9	141.0	0.015	1.8	Open	;
R305	Z317	Z318	5	96.8	0.015	0	Open	;
R306	Z317	Z319	8.4	141.0	0.015	0	Open	;
R307	Z314	Z315	5	96.8	0.015	0	Open	;
R308	Z313	Z312	5	96.8	0.015	0	Open	;
R309	Z310	Z320	5	96.8	0.015	0	Open	;
R310	Z294	Z322	1122.7	400	0.15	0	Open	;
R311	Z307	Z323	9	197.4	0.015	0	Open	;
R312	Z323	Z324	94	197.4	0.015	0	Open	;
R313	Z324	Z325	81	141	0.015	1.8	Open	;
R314	Z325	Z326	21.8	141	0.015	0	Open	;
R315	Z326	Z327	11.5	141	0.015	0	Open	;
R316	Z327	Z328	204.3	141.0	0.015	0	Open	;
R317	Z328	Z329	7.8	141.0	0.015	0	Open	;
R318	Z329	Z330	96	141.0	0.015	0	Open	;
R319	Z330	Z331	86	141.0	0.015	0	Open	;
R320	Z331	Z332	292.5	141.0	0.015	0	Open	;
R321	Z332	Z333	5.6	141.0	0.015	0	Open	;
R322	Z333	Z334	38	141.0	0.015	0	Open	;
R323	Z323	Z336	5	96.8	0.015	0	Open	;
R324	Z323	Z335	5	96.8	0.015	0	Open	;
R325	Z324	Z337	5	96.8	0.015	0	Open	;
R326	Z325	Z338	5	96.8	0.015	0	Open	;
R327	Z326	Z339	5	96.8	0.015	0	Open	;
R328	Z327	Z340	5	96.8	0.015	0	Open	;
R329	Z328	Z341	5	96.8	0.015	0	Open	;

R330	Z329	Z342	5	96.8	0.015	0	Open	;
R331	Z330	Z343	5	96.8	0.015	0	Open	;
R332	Z330	Z344	5	96.8	0.015	0	Open	;
R333	Z331	Z345	5	96.8	0.015	0	Open	;
R334	Z332	Z346	5	96.8	0.015	0	Open	;
R335	Z333	Z347	5	96.8	0.015	0	Open	;
R336	Z334	Z349	5	96.8	0.015	0	Open	;
R337	Z334	Z348	5	96.8	0.015	0	Open	;
R338	Z322	Z350	290	141.0	0.015	1.8	Open	;
R339	Z351	Z352	246.5	141.0	0.015	0	Open	;
R340	Z352	Z353	126.3	141.0	0.015	0	Open	;
R341	Z353	Z354	167	141.0	0.015	0	Open	;
R342	Z354	Z355	207	141.0	0.015	0	Open	;
R343	Z355	Z356	57.1	141.0	0.015	1.8	Open	;
R344	Z355	Z357	257.4	141.0	0.015	0	Open	;
R345	Z354	Z363	5	96.8	0.015	0	Open	;
R346	Z354	Z362	5	96.8	0.015	0	Open	;
R347	Z353	Z361	5	96.8	0.015	0	Open	;
R348	Z352	Z360	5	96.8	0.015	0	Open	;
R349	Z351	Z359	5	96.8	0.015	0	Open	;
R350	Z350	Z358	5	96.8	0.015	0	Open	;
R351	Z350	Z351	8.8	141.0	0.015	0	Open	;
R352	Z322	Z364	835.5	400	0.15	0	Open	;
R353	Z364	Z365	825.7	400	0.15	0	Open	;
R354	Z206	Z365	302.8	400	0.15	1.8	Open	;
R355	Z364	Z366	5	141.0	0.015	1.8	Open	;
R356	Z366	Z367	142.5	141.0	0.015	0	Open	;
R357	Z367	Z368	297.05	141.0	0.015	0	Open	;
R358	Z366	Z388	5	96.8	0.015	0	Open	;
R359	Z367	Z387	5	96.8	0.015	0	Open	;
R360	Z367	Z386	5	96.8	0.015	0	Open	;
R361	Z364	Z369	22.8	197.4	0.015	1.8	Open	;
R362	Z369	Z389	48	197.4	0.015	0	Open	;
R363	Z389	Z370	386	197.4	0.015	0	Open	;
R364	Z370	Z371	8.8	141.0	0.015	1.8	Open	;
R365	Z371	Z372	174.8	141.0	0.015	0	Open	;
R366	Z372	Z373	135.5	141.0	0.015	0	Open	;
R367	Z373	Z374	42.4	141.0	0.015	0	Open	;

R368	Z389	Z390	127	141.0	0.015	1.8	Open	;
R369	Z370	Z375	62.3	141.0	0.015	1.8	Open	;
R370	Z375	Z376	2	141.0	0.015	0	Open	;
R371	Z376	Z377	155.7	141.0	0.015	0	Open	;
R372	Z377	Z378	9.8	141.0	0.015	0	Open	;
R373	Z378	Z379	82	141.0	0.015	1.8	Open	;
R374	Z379	Z380	143.1	141.0	0.015	0	Open	;
R375	Z380	Z381	124.5	141.0	0.015	0	Open	;
R376	Z378	Z382	30.6	141.0	0.015	0	Open	;
R377	Z382	Z383	9.4	141.0	0.015	0	Open	;
R378	Z383	Z384	166.7	141.0	0.015	0	Open	;
R379	Z384	Z385	152.4	141.0	0.015	0	Open	;
R380	Z369	Z391	5	96.8	0.015	0	Open	;
R381	Z373	Z394	5	96.8	0.015	0	Open	;
R382	Z372	Z393	5	96.8	0.015	0	Open	;
R383	Z371	Z392	5	96.8	0.015	0	Open	;
R384	Z375	Z395	5	96.8	0.015	0	Open	;
R385	Z376	Z396	5	96.8	0.015	0	Open	;
R386	Z377	Z397	5	96.8	0.015	0	Open	;
R387	Z379	Z398	5	96.8	0.015	0	Open	;
R388	Z380	Z399	5	96.8	0.015	0	Open	;
R389	Z365	Z401	5	141.0	0.015	1.8	Open	;
R390	Z401	Z400	5.2	141.0	0.015	0	Open	;
R391	Z400	Z402	148.3	141.0	0.015	0	Open	;
R392	Z402	Z403	95	141.0	0.015	0	Open	;
R393	Z403	Z404	337.6	141.0	0.015	0	Open	;
R394	Z404	Z405	442	141.0	0.015	0	Open	;
R395	Z405	Z406	61.5	141.0	0.015	0	Open	;
R396	Z400	Z407	5	96.8	0.015	0	Open	;
R397	Z402	Z408	5	96.8	0.015	0	Open	;
R398	Z403	Z409	5	96.8	0.015	0	Open	;
R399	Z404	Z410	5	96.8	0.015	0	Open	;
R400	Z405	Z411	20.84	141.0	0.015	0	Open	;
R401	Z401	Z412	19.3	141.0	0.015	1.8	Open	;
R402	Z412	Z417	5	96.8	0.015	0	Open	;
R403	Z412	Z416	5	96.8	0.015	0	Open	;
R404	Z412	Z413	94.8	141.0	0.015	0	Open	;
R405	Z413	Z418	5	96.8	0.015	0	Open	;

R406	Z413	Z420	5	96.8	0.015	0	Open	;
R407	Z413	Z414	105.6	141.0	0.015	0	Open	;
R408	Z414	Z419	5	96.8	0.015	0	Open	;
R409	Z414	Z415	70.3	141.0	0.015	0	Open	;
R410	Z219	Z421	138.2	141.0	0.015	1.8	Open	;
R411	Z421	Z422	10.7	141.0	0.015	0	Open	;
R412	Z422	Z423	160	141.0	0.015	0	Open	;
R413	Z423	Z424	104.3	141.0	0.015	0	Open	;
R414	Z423	Z425	5	96.8	0.015	0	Open	;
R415	Z422	Z426	5	96.8	0.015	0	Open	;
R416	Z421	Z427	5	96.8	0.015	0	Open	;
R417	Z235	Z428	5	96.8	0.015	0	Open	;
R418	Z234	Z429	5	96.8	0.015	0	Open	;
R419	Z220	Z430	5	96.8	0.015	0	Open	;
R420	Z229	Z437	5	96.8	0.015	0	Open	;
R421	Z228	Z436	5	96.8	0.015	0	Open	;
R422	Z226	Z435	5	96.8	0.015	0	Open	;
R423	Z225	Z434	5	96.8	0.015	0	Open	;
R424	Z224	Z433	5	96.8	0.015	0	Open	;
R425	Z223	Z432	5	96.8	0.015	0	Open	;
R426	Z222	Z431	5	96.8	0.015	0	Open	;
R427	Z231	Z438	5	96.8	0.015	0	Open	;
R428	Z232	Z439	5	96.8	0.015	0	Open	;
G429	Z209	Z467	480.3	500	0.15	0	Open	;
G430	Z467	Z466	238.5	500	0.15	1.8	Open	;
G431	Z466	Z463	303.93	500	0.15	0	Open	;
R429	Z463	Z462	15.40	312.8	0.015	1.8	Open	;
R431	Z461	Z459	16.8	141	0.015	1.8	Open	;
R433	Z457	Z455	13.8	141	0.015	0	Open	;
R434	Z455	Z453	24.7	141	0.015	0	Open	;
R435	Z453	Z451	38.3	141	0.015	0	Open	;
R436	Z451	Z448	66.8	141	0.015	1.8	Open	;
R437	Z448	Z446	328	197.4	0.015	0	Open	;
R438	Z446	Z444	24	197.4	0.015	0	Open	;
R439	Z444	Z442	11.9	197.4	0.015	0	Open	;
R440	Z442	Z440	319.2	197.4	0.015	0	Open	;
R441	Z440	Z209	64.8	197.4	0.015	1.8	Open	;
R442	Z462	Z465	5	96.8	0.015	0	Open	;

R443	Z462	Z464	5	96.8	0.015	0	Open	;
R444	Z459	Z460	5	96.8	0.015	0	Open	;
R445	Z440	Z441	5	96.8	0.015	0	Open	;
R446	Z442	Z443	5	96.8	0.015	0	Open	;
R447	Z444	Z445	5	96.8	0.015	0	Open	;
R448	Z446	Z447	5	96.8	0.015	0	Open	;
R449	Z448	Z450	5	96.8	0.015	0	Open	;
R450	Z448	Z449	5	96.8	0.015	0	Open	;
R451	Z451	Z452	5	96.8	0.015	0	Open	;
R452	Z453	Z454	5	96.8	0.015	0	Open	;
R453	Z455	Z456	5	96.8	0.015	0	Open	;
R454	Z457	Z458	5	96.8	0.015	0	Open	;
R455	Z467	Z468	4.4	141.0	0.015	1.8	Open	;
R456	Z468	Z469	33.2	141.0	0.015	0	Open	;
R457	Z469	Z471	5	96.8	0.015	0	Open	;
R458	Z469	Z470	214	141.0	0.015	0	Open	;
R459	Z468	Z472	84.7	141.0	0.015	1.8	Open	;
R460	Z472	Z474	64.9	141.0	0.015	0	Open	;
R461	Z474	Z476	34.5	141.0	0.015	0	Open	;
R462	Z472	Z473	5	96.8	0.015	0	Open	;
R463	Z474	Z475	5	96.8	0.015	0	Open	;
R464	Z205	Z481	2	141.0	0.015	1.8	Open	;
R465	Z481	Z477	186	141.0	0.015	0	Open	;
R466	Z477	Z479	322.7	141.0	0.015	0	Open	;
R467	Z481	Z480	5	96.8	0.015	0	Open	;
R468	Z477	Z478	5	96.8	0.015	0	Open	;
R469	Z461	Z482	4.8	277.6	0.015	1.8	Open	;
R470	Z482	Z483	38.1	277.6	0.015	0	Open	;
R471	Z483	Z484	70.8	277.6	0.015	0	Open	;
R472	Z484	Z485	58.5	277.6	0.015	0	Open	;
R473	Z482	Z497	5	96.8	0.015	0	Open	;
R474	Z483	Z498	5	96.8	0.015	0	Open	;
R475	Z484	Z499	5	96.8	0.015	0	Open	;
R476	Z485	Z500	5	96.8	0.015	0	Open	;
R477	Z485	Z486	401.1	277.6	0.015	0	Open	;
R478	Z486	Z487	194.6	221.2	0.015	1.8	Open	;
R479	Z487	Z488	12.6	221.2	0.015	0	Open	;
R480	Z486	Z501	5	96.8	0.015	0	Open	;

R481	Z487	Z502	5	96.8	0.015	0	Open	;
R482	Z488	Z490	391.7	197.4	0.015	1.8	Open	;
R483	Z490	Z489	3.1	197.4	0.015	0	Open	;
R484	Z489	Z493	9	141.0	0.015	1.8	Open	;
R485	Z493	Z494	92.8	141.0	0.015	0	Open	;
R486	Z494	Z495	28.8	141.0	0.015	0	Open	;
R487	Z495	Z496	32.16	141.0	0.015	0	Open	;
R488	Z489	Z491	152.9	141.0	0.015	1.8	Open	;
R489	Z490	Z504	5	96.8	0.015	0	Open	;
R490	Z491	Z503	5	96.8	0.015	0	Open	;
R491	Z491	Z492	5.7	141.0	0.015	0	Open	;
R492	Z495	Z505	5	96.8	0.015	0	Open	;
R493	Z494	Z506	5	96.8	0.015	0	Open	;
R494	Z493	Z507	5	96.8	0.015	0	Open	;
R495	Z493	Z508	5	96.8	0.015	0	Open	;
R496	Z176	Z561	105.5	221.2	0.015	1.8	Open	;
R497	Z561	Z562	5.4	141.0	0.015	1.8	Open	;
R498	Z562	Z565	5.4	141.0	0.015	1.8	Open	;
R499	Z565	Z564	99.3	141.0	0.015	0	Open	;
R500	Z565	Z563	5	96.8	0.015	0	Open	;
R501	Z575	Z566	5	96.8	0.015	0	Open	;
R502	Z562	Z575	10.2	141.0	0.015	0	Open	;
R503	Z575	Z567	119	141.0	0.015	0	Open	;
R504	Z567	Z569	38.1	141.0	0.015	0	Open	;
R505	Z567	Z568	5	96.8	0.015	0	Open	;
R506	Z569	Z570	5	96.8	0.015	0	Open	;
R507	Z569	Z518	223.4	141.0	0.015	0	Open	;
R508	Z518	Z519	62.7	141.0	0.015	0	Open	;
R509	Z518	Z571	5	96.8	0.015	0	Open	;
R510	Z519	Z520	144.1	141.0	0.015	1.8	Open	;
R511	Z519	Z521	236.5	141.0	0.015	0	Open	;
R512	Z521	Z522	320.1	141.0	0.015	0	Open	;
R513	Z522	Z523	11.7	141.0	0.015	0	Open	;
R514	Z523	Z524	121	141.0	0.015	0	Open	;
R515	Z523	Z574	5	96.8	0.015	0	Open	;
R516	Z522	Z573	5	96.8	0.015	0	Open	;
R517	Z521	Z572	5	96.8	0.015	0	Open	;
R518	Z561	Z516	549.46	221.2	0.015	0	Open	;

R519	Z516	Z515	239.7	221.2	0.015	0	Open	;
R520	Z515	Z514	190.8	221.2	0.015	0	Open	;
R521	Z516	Z560	5	96.8	0.015	0	Open	;
R522	Z515	Z559	5	96.8	0.015	0	Open	;
R523	Z514	Z554	7.1	141.0	0.015	1.8	Open	;
R524	Z554	Z556	117.8	141.0	0.015	0	Open	;
R525	Z556	Z558	55.2	141.0	0.015	0	Open	;
R526	Z554	Z555	5	96.8	0.015	0	Open	;
R527	Z556	Z557	5	96.8	0.015	0	Open	;
R528	Z514	Z513	525.6	221.2	0.015	0	Open	;
R529	Z466	Z525	5.6	221.2	0.015	1.8	Open	;
R530	Z525	Z509	120.7	221.2	0.015	0	Open	;
R531	Z509	Z510	36.1	221.2	0.015	0	Open	;
R532	Z510	Z511	117.2	221.2	0.015	0	Open	;
R533	Z511	Z512	29.4	221.2	0.015	0	Open	;
R534	Z512	Z513	230.4	221.2	0.015	0	Open	;
R535	Z512	Z530	5	96.8	0.015	0	Open	;
R536	Z511	Z529	5	96.8	0.015	0	Open	;
R537	Z510	Z528	5	96.8	0.015	0	Open	;
R538	Z509	Z527	5	96.8	0.015	0	Open	;
R539	Z525	Z526	5	96.8	0.015	0	Open	;
R540	Z513	Z531	4.4	197.4	0.015	1.8	Open	;
R541	Z531	Z532	200.5	141.0	0.015	1.8	Open	;
R542	Z532	Z576	1.2	141.0	0.015	0	Open	;
R543	Z576	Z535	28	141.0	0.015	0	Open	;
R544	Z532	Z533	5	96.8	0.015	0	Open	;
R545	Z576	Z534	5	96.8	0.015	0	Open	;
R546	Z531	Z536	8.8	197.4	0.015	0	Open	;
R547	Z536	Z539	22.2	197.4	0.015	0	Open	;
R548	Z539	Z540	106.8	197.4	0.015	0	Open	;
R549	Z540	Z541	9.8	141.0	0.015	1.8	Open	;
R550	Z541	Z543	31.7	141.0	0.015	0	Open	;
R551	Z543	Z546	24.5	141.0	0.015	0	Open	;
R552	Z536	Z537	5	96.8	0.015	0	Open	;
R553	Z539	Z538	5	96.8	0.015	0	Open	;
R554	Z541	Z542	5	96.8	0.015	0	Open	;
R555	Z543	Z544	5	96.8	0.015	0	Open	;
R556	Z546	Z545	5	96.8	0.015	0	Open	;

R557	Z540	Z547	94.1	141	0.015	1.8	Open	;
R558	Z547	Z549	252.2	141	0.015	0	Open	;
R559	Z549	Z551	48.1	141	0.015	0	Open	;
R560	Z551	Z552	45.1	141.0	0.015	0	Open	;
R561	Z551	Z553	5	96.8	0.015	0	Open	;
R562	Z549	Z550	5	96.8	0.015	0	Open	;
R563	Z547	Z548	5	96.8	0.015	0	Open	;
R564	Z175	Z40	647	500	0.15	1.8	Open	;
G565	Z463	Z577	463.2	500	0.15	0	Open	;
R565	Z577	Z578	13	141	0.015	1.8	Open	;
R566	Z578	Z579	81.4	141	0.015	0	Open	;
R567	Z579	Z580	104.3	141	0.015	0	Open	;
R568	Z580	Z581	128	141	0.015	1.8	Open	;
R569	Z580	Z588	92.4	141	0.015	0	Open	;
R570	Z588	Z590	17	141.0	0.015	0	Open	;
R571	Z590	Z592	45.3	141.0	0.015	0	Open	;
R572	Z578	Z583	5.3	141	0.015	1.8	Open	;
R573	Z583	Z585	14.5	141.0	0.015	0	Open	;
R574	Z585	Z587	5	96.8	0.015	0	Open	;
R575	Z585	Z586	5	96.8	0.015	0	Open	;
R576	Z583	Z584	5	96.8	0.015	0	Open	;
R577	Z590	Z591	5	96.8	0.015	0	Open	;
R578	Z588	Z589	5	96.8	0.015	0	Open	;
R579	Z579	Z582	21.6	141.0	0.015	1.8	Open	;
G580	Z577	Z593	400	500	0.15	0	Open	;
G581	Z593	Z595	355.4	500	0.15	0	Open	;
R580	Z594	Z597	5	96.8	0.015	0	Open	;
R581	Z596	Z598	5	96.8	0.015	0	Open	;
R582	Z602	Z603	5	96.8	0.015	0	Open	;
R583	Z605	Z606	5	96.8	0.015	0	Open	;
R584	Z609	Z610	5	96.8	0.015	0	Open	;
R585	Z611	Z612	5	96.8	0.015	0	Open	;
R586	Z613	Z614	5	96.8	0.015	0	Open	;
R587	Z615	Z616	5	96.8	0.015	0	Open	;
R588	Z615	Z617	5	96.8	0.015	0	Open	;
R589	Z620	Z621	5	96.8	0.015	0	Open	;
R590	Z622	Z623	5	96.8	0.015	0	Open	;
R591	Z624	Z625	5	96.8	0.015	0	Open	;

R592	Z626	Z628	5	96.8	0.015	0	Open	;
R593	Z626	Z629	5	96.8	0.015	0	Open	;
R594	Z631	Z632	5	96.8	0.015	0	Open	;
R595	Z633	Z634	5	96.8	0.015	0	Open	;
R596	Z593	Z594	5.4	277.6	0.015	1.8	Open	;
R597	Z594	Z596	313.3	277.6	0.015	0	Open	;
R598	Z596	Z599	49.3	277.6	0.015	0	Open	;
R599	Z599	Z600	18.9	141.0	0.015	1.8	Open	;
R600	Z599	Z601	504	277.6	0.015	0	Open	;
R601	Z601	Z604	24.9	277.6	0.015	0	Open	;
R602	Z604	Z605	21.3	141.0	0.015	1.8	Open	;
R603	Z605	Z607	41.7	141.0	0.015	0	Open	;
R604	Z601	Z602	5	277.6	0.015	1.8	Open	;
R605	Z602	Z608	336.4	277.6	0.015	0	Open	;
R606	Z608	Z609	50.5	197.4	0.015	1.8	Open	;
R607	Z609	Z613	245	197.4	0.015	0	Open	;
R608	Z613	Z615	80.4	197.4	0.015	0	Open	;
R609	Z615	Z618	17.5	141.0	0.015	1.8	Open	;
R610	Z608	Z611	101	277.6	0.015	0	Open	;
R611	Z611	Z619	191.3	277.6	0.015	0	Open	;
R612	Z619	Z622	37.8	197.4	0.015	1.8	Open	;
R613	Z622	Z624	85.9	197.4	0.015	0	Open	;
R614	Z624	Z626	11.4	141	0.015	1.8	Open	;
R615	Z626	Z627	7.4	141.0	0.015	0	Open	;
R616	Z619	Z620	4.4	197.4	0.015	1.8	Open	;
R617	Z620	Z633	185.8	197.4	0.015	0	Open	;
R618	Z633	Z631	35.8	141	0.015	1.8	Open	;
R619	Z631	Z630	345.2	141	0.015	0	Open	;
R620	Z604	Z517	116.7	277.6	0.015	0	Open	;
R621	Z517	Z635	436.7	277.6	0.015	0	Open	;
R622	Z635	Z636	497.7	277.6	0.015	0	Open	;
R623	Z595	Z637	90.6	277.6	0.015	1.8	Open	;
R624	Z637	Z636	301.5	277.6	0.015	0	Open	;
R625	Z649	Z639	5	96.8	0.015	0	Open	;
R627	Z517	Z640	5	96.8	0.015	0	Open	;
R628	Z635	Z641	5.6	141	0.015	1.8	Open	;
R629	Z641	Z642	5.6	141.0	0.015	1.8	Open	;
R630	Z641	Z643	140.3	141	0.015	0	Open	;

R631	Z643	Z645	5	96.8	0.015	0	Open	;
R632	Z643	Z646	5	96.8	0.015	0	Open	;
R633	Z643	Z644	12.3	141.0	0.015	0	Open	;
R634	Z642	Z648	5	96.8	0.015	0	Open	;
R635	Z642	Z647	182.6	141.0	0.015	0	Open	;
R636	Z637	Z649	6.1	141.0	0.015	1.8	Open	;
R637	Z649	Z638	37	141.0	0.015	0	Open	;
R638	Z636	Z650	125.1	141.0	0.015	1.8	Open	;
R639	Z650	Z651	13.8	141.0	0.015	0	Open	;
R640	Z651	Z655	167.2	141.0	0.015	0	Open	;
R641	Z650	Z652	5	96.8	0.015	0	Open	;
R642	Z651	Z653	5	96.8	0.015	0	Open	;
R643	Z651	Z654	5	96.8	0.015	0	Open	;
R644	Z595	Z656	440.3	500	0.15	0	Open	;
R645	Z656	Z657	506.6	500	0.15	0	Open	;
R646	Z657	Z658	191.7	500	0.15	0	Open	;
R647	Z658	Z659	278.4	500	0.015	0	Open	;
R648	Z659	Z660	355.9	500	0.15	0	Open	;
R649	Z660	Z661	279	500	0.15	0	Open	;
R650	Z661	Z662	669.8	500	0.15	0	Open	;
R651	Z662	Z663	282.5	500	0.15	0	Open	;
R652	Z664	Z663	606.5	500	0.15	0	Open	;
R653	Z665	Z664	503.8	500	0.15	0	Open	;
R654	Z40	Z665	241.2	500	0.15	0	Open	;
R655	Z666	Z667	5	96.8	0.015	0	Open	;
R656	Z666	Z668	5	96.8	0.015	0	Open	;
R657	Z39	Z666	41	141.0	0.015	1.8	Open	;
R658	Z674	Z676	5	96.8	0.015	0	Open	;
R659	Z672	Z677	5	96.8	0.015	0	Open	;
R660	Z669	Z679	5	96.8	0.015	0	Open	;
R661	Z670	Z678	5	96.8	0.015	0	Open	;
R662	Z673	Z680	5	96.8	0.015	0	Open	;
R663	Z681	Z687	5	96.8	0.015	0	Open	;
R664	Z682	Z688	5	96.8	0.015	0	Open	;
R665	Z683	Z689	5	96.8	0.015	0	Open	;
R666	Z684	Z690	5	96.8	0.015	0	Open	;
R667	Z685	Z691	5	96.8	0.015	0	Open	;
R668	Z665	Z669	43	141	0.015	1.8	Open	;

R669	Z669	Z670	54.4	141	0.015	0	Open	;
R670	Z670	Z671	212.7	141	0.015	0	Open	;
R671	Z671	Z674	171.4	141.0	0.015	1.8	Open	;
R672	Z674	Z675	43.7	141.0	0.015	0	Open	;
R673	Z671	Z672	10.8	141.0	0.015	0	Open	;
R674	Z672	Z673	189.3	141.0	0.015	0	Open	;
R675	Z673	Z681	75.6	141.0	0.015	0	Open	;
R676	Z681	Z682	55.7	141.0	0.015	0	Open	;
R677	Z682	Z683	36.8	141.0	0.015	0	Open	;
R678	Z683	Z684	13	141.0	0.015	0	Open	;
R679	Z684	Z685	70.7	141.0	0.015	0	Open	;
R680	Z685	Z686	130.9	141.0	0.015	0	Open	;
R681	Z695	Z696	5	96.8	0.015	0	Open	;
R682	Z693	Z694	5	96.8	0.015	0	Open	;
R683	Z664	Z692	4.6	141.0	0.015	1.8	Open	;
R684	Z692	Z693	1.7	141.0	0.015	1.8	Open	;
R685	Z693	Z695	85	141.0	0.015	0	Open	;
R686	Z695	Z697	19.5	141.0	0.015	0	Open	;
R687	Z692	Z698	3.9	141.0	0.015	0	Open	;
R688	Z698	Z702	168.3	141.0	0.015	0	Open	;
R689	Z702	Z700	40.2	141.0	0.015	0	Open	;
R690	Z702	Z701	5	96.8	0.015	0	Open	;
R691	Z698	Z699	5	96.8	0.015	0	Open	;
R692	Z703	Z704	125.6	141.0	0.015	0	Open	;
R693	Z704	Z705	233.7	141.0	0.015	0	Open	;
R694	Z705	Z706	108.5	141.0	0.015	0	Open	;
R695	Z706	Z709	123.5	141.0	0.015	0	Open	;
R696	Z709	Z710	232.8	141.0	0.015	0	Open	;
R697	Z709	Z707	43.5	141.0	0.015	1.8	Open	;
R698	Z707	Z708	12.8	141.0	0.015	0	Open	;
R699	Z703	Z711	5	96.8	0.015	0	Open	;
R700	Z704	Z712	5	96.8	0.015	0	Open	;
R701	Z705	Z713	5	96.8	0.015	0	Open	;
R702	Z706	Z714	5	96.8	0.015	0	Open	;
R703	Z707	Z715	5	96.8	0.015	0	Open	;
R704	Z663	Z703	9	141.0	0.015	1.8	Open	;
R705	Z662	Z716	82.3	141	0.015	1.8	Open	;
R706	Z716	Z717	318.1	141	0.015	0	Open	;

R707	Z717	Z718	192.7	141.0	0.015	1.8	Open	;
R708	Z718	Z719	68.9	141.0	0.015	0	Open	;
R709	Z717	Z720	94.5	141	0.015	0	Open	;
R710	Z720	Z721	13.7	141	0.015	0	Open	;
R711	Z721	Z722	40.2	141.0	0.015	1.8	Open	;
R712	Z722	Z723	84.7	141.0	0.015	0	Open	;
R713	Z722	Z724	5	96.8	0.015	0	Open	;
R714	Z721	Z725	5	96.8	0.015	0	Open	;
R715	Z720	Z726	5	96.8	0.015	0	Open	;
R716	Z718	Z727	5	96.8	0.015	0	Open	;
R626	Z657	Z728	2.7	197.4	0.015	1.8	Open	;
R717	Z728	Z729	23.9	141.0	0.015	1.8	Open	;
R718	Z730	Z729	5	96.8	0.015	0	Open	;
R719	Z729	Z731	235	141.0	0.015	0	Open	;
R720	Z728	Z732	187.7	197.4	0.015	0	Open	;
R721	Z732	Z734	65.9	197.4	0.015	0	Open	;
R722	Z734	Z736	200.9	197.4	0.015	0	Open	;
R723	Z736	Z738	161	197.4	0.015	0	Open	;
R724	Z738	Z740	160.5	141	0.015	1.8	Open	;
R725	Z740	Z742	13.1	141	0.015	0	Open	;
R726	Z742	Z743	45.4	141	0.015	1.8	Open	;
R727	Z743	Z744	9.4	141	0.015	0	Open	;
R728	Z744	Z747	466	141.0	0.015	0	Open	;
R729	Z744	Z746	5	96.8	0.015	0	Open	;
R730	Z743	Z745	5	96.8	0.015	0	Open	;
R731	Z740	Z741	5	96.8	0.015	0	Open	;
R732	Z738	Z739	5	96.8	0.015	0	Open	;
R733	Z736	Z737	5	96.8	0.015	0	Open	;
R734	Z734	Z735	5	96.8	0.015	0	Open	;
R735	Z732	Z733	5	96.8	0.015	0	Open	;
R736	Z656	Z748	8.5	197.4	0.015	1.8	Open	;
R737	Z748	Z749	6.8	141	0.015	1.8	Open	;
R738	Z749	Z750	20.2	141	0.015	0	Open	;
R739	Z750	Z752	85.5	141	0.015	1.8	Open	;
R740	Z752	Z753	4.3	141	0.015	0	Open	;
R741	Z753	Z754	9	141.0	0.015	0	Open	;
R742	Z753	Z756	148.8	141.0	0.015	1.8	Open	;
R743	Z754	Z755	78.04	141.0	0.015	0	Open	;

R744	Z750	Z751	41.2	141	0.015	0	Open	;
R745	Z751	Z761	110.6	141	0.015	0	Open	;
R746	Z761	Z762	20.5	141.0	0.015	0	Open	;
R747	Z762	Z763	14.1	141.0	0.015	0	Open	;
R748	Z763	Z764	48.89	141.0	0.015	0	Open	;
R749	Z763	Z765	5	96.8	0.015	0	Open	;
R750	Z762	Z766	5	96.8	0.015	0	Open	;
R751	Z761	Z767	5	96.8	0.015	0	Open	;
R752	Z751	Z760	5	96.8	0.015	0	Open	;
R753	Z749	Z759	5	96.8	0.015	0	Open	;
R754	Z752	Z758	5	96.8	0.015	0	Open	;
R755	Z754	Z757	5	96.8	0.015	0	Open	;
R756	Z774	Z776	5	96.8	0.015	0	Open	;
R757	Z771	Z777	5	96.8	0.015	0	Open	;
R758	Z770	Z778	5	96.8	0.015	0	Open	;
R759	Z769	Z779	5	96.8	0.015	0	Open	;
R760	Z768	Z780	5	96.8	0.015	0	Open	;
R761	Z748	Z768	510.8	197.4	0.015	0	Open	;
R762	Z768	Z769	18.4	197.4	0.015	0	Open	;
R763	Z769	Z770	96.3	197.4	0.015	0	Open	;
R764	Z770	Z771	10.4	141	0.015	1.8	Open	;
R765	Z771	Z772	139.1	141	0.015	0	Open	;
R766	Z772	Z774	61.3	141.0	0.015	1.8	Open	;
R767	Z774	Z775	9.1	141.0	0.015	0	Open	;
R768	Z772	Z773	202.6	141.0	0.015	0	Open	;
R769	Z659	Z781	48.6	277.6	0.015	1.8	Open	;
R770	Z781	Z785	78.2	277.6	0.015	0	Open	;
R771	Z785	Z782	128.1	277.6	0.015	0	Open	;
R772	Z782	Z783	269.1	277.6	0.015	0	Open	;
R773	Z783	Z784	64.2	277.6	0.015	0	Open	;
R774	Z784	Z786	247.3	277.6	0.015	0	Open	;
R775	Z786	Z787	47.2	277.6	0.015	0	Open	;
R776	Z787	Z788	53.7	277.6	0.015	0	Open	;
R777	Z788	Z789	9.9	277.6	0.015	0	Open	;
R778	Z789	Z790	29	277.6	0.015	0	Open	;
R779	Z790	Z791	207.9	221.2	0.015	1.8	Open	;
R780	Z791	Z792	90.2	221.2	0.015	0	Open	;
R781	Z792	Z793	193.2	221.2	0.015	0	Open	;

R782	Z793	Z794	83.3	221.2	0.015	0	Open	;
R783	Z794	Z795	10.7	221.2	0.015	1.8	Open	;
R798	Z809	Z795	224.05	277.6	0.015	0	Open	;
R785	Z781	Z808	5	96.8	0.015	0	Open	;
R786	Z782	Z807	5	96.8	0.015	0	Open	;
R787	Z783	Z806	5	96.8	0.015	0	Open	;
R788	Z784	Z805	5	96.8	0.015	0	Open	;
R789	Z786	Z804	5	96.8	0.015	0	Open	;
R790	Z787	Z803	5	96.8	0.015	0	Open	;
R791	Z788	Z802	5	96.8	0.015	0	Open	;
R792	Z789	Z801	5	96.8	0.015	0	Open	;
R793	Z791	Z800	5	96.8	0.015	0	Open	;
R794	Z792	Z799	5	96.8	0.015	0	Open	;
R795	Z793	Z798	5	96.8	0.015	0	Open	;
R796	Z794	Z797	5	96.8	0.015	0	Open	;
R797	Z809	Z796	20.86	96.8	0.015	0	Open	;
R799	Z661	Z809	10.74	277.6	0.015	1.8	Open	;
R800	Z790	Z810	5.7	197.4	0.015	1.8	Open	;
R801	Z810	Z811	112.1	197.4	0.015	0	Open	;
R802	Z811	Z812	88.7	197.4	0.015	0	Open	;
R803	Z812	Z813	88.5	141	0.015	1.8	Open	;
R804	Z813	Z814	89.2	141	0.015	0	Open	;
R805	Z814	Z815	87.3	141.0	0.015	0	Open	;
R806	Z815	Z816	118.8	141.0	0.015	0	Open	;
R807	Z816	Z817	76.1	141.0	0.015	0	Open	;
R808	Z816	Z818	116.9	141.0	0.015	1.8	Open	;
R809	Z810	Z819	5	96.8	0.015	0	Open	;
R810	Z811	Z820	5	96.8	0.015	0	Open	;
R811	Z812	Z821	5	96.8	0.015	0	Open	;
R812	Z813	Z822	5	96.8	0.015	0	Open	;
R813	Z814	Z823	5	96.8	0.015	0	Open	;
R814	Z815	Z824	5	96.8	0.015	0	Open	;
R784	Z825	Z838	5	96.8	0.015	0	Open	;
R815	Z826	Z839	5	96.8	0.015	0	Open	;
R816	Z827	Z840	5	96.8	0.015	0	Open	;
R817	Z828	Z841	5	96.8	0.015	0	Open	;
R818	Z829	Z842	5	96.8	0.015	0	Open	;
R819	Z831	Z843	5	96.8	0.015	0	Open	;

R820	Z831	Z844	5	96.8	0.015	0	Open	;
R821	Z833	Z845	5	96.8	0.015	0	Open	;
R822	Z834	Z847	5	96.8	0.015	0	Open	;
R823	Z835	Z848	5	96.8	0.015	0	Open	;
R824	Z836	Z849	5	96.8	0.015	0	Open	;
R825	Z785	Z825	122.1	277.6	0.015	1.8	Open	;
R826	Z825	Z826	233.5	277.6	0.015	0	Open	;
R827	Z826	Z827	33	277.6	0.015	0	Open	;
R828	Z827	Z828	65.4	221.2	0.015	1.8	Open	;
R829	Z828	Z829	138.6	221.2	0.015	0	Open	;
R830	Z829	Z830	163.2	221.2	0.015	0	Open	;
R831	Z830	Z831	8.3	141.0	0.015	1.8	Open	;
R832	Z830	Z832	322.9	197.4	0.015	1.8	Open	;
R833	Z832	Z846	106.9	141.0	0.015	1.8	Open	;
R834	Z832	Z833	1.3	197.4	0.015	0	Open	;
R835	Z833	Z834	83.9	197.4	0.015	0	Open	;
R836	Z834	Z835	150.6	141	0.015	1.8	Open	;
R837	Z835	Z836	34.9	141.0	0.015	0	Open	;
R838	Z836	Z837	60.7	141.0	0.015	0	Open	;
R839	Z795	Z850	189	221.2	0.015	1.8	Open	;
R840	Z850	Z851	8.9	221.2	0.015	0	Open	;
R841	Z851	Z852	143.3	221.2	0.015	0	Open	;
R842	Z852	Z853	44.2	221.2	0.015	0	Open	;
R843	Z853	Z854	171.3	221.2	0.015	0	Open	;
R844	Z854	Z855	103.3	197.4	0.015	1.8	Open	;
R845	Z855	Z856	64	141	0.015	1.8	Open	;
R846	Z856	Z857	61.3	141	0.015	0	Open	;
R847	Z857	Z858	80.2	141	0.015	0	Open	;
R848	Z858	Z859	56.2	141	0.015	0	Open	;
R849	Z859	Z871	121	141.0	0.015	0	Open	;
R850	Z854	Z860	316	141	0.015	1.8	Open	;
R851	Z860	Z861	122.9	141	0.015	0	Open	;
R852	Z861	Z874	201	141.0	0.015	0	Open	;
R853	Z850	Z862	5	96.8	0.015	0	Open	;
R854	Z851	Z863	5	96.8	0.015	0	Open	;
R855	Z852	Z864	5	96.8	0.015	0	Open	;
R856	Z853	Z865	5	96.8	0.015	0	Open	;
R857	Z855	Z866	5	96.8	0.015	0	Open	;

R858	Z856	Z867	5	96.8	0.015	0	Open	;
R859	Z857	Z868	5	96.8	0.015	0	Open	;
R860	Z858	Z869	5	96.8	0.015	0	Open	;
R861	Z859	Z870	5	96.8	0.015	0	Open	;
R862	Z860	Z872	5	96.8	0.015	0	Open	;
R863	Z861	Z873	5	96.8	0.015	0	Open	;
R864	Z3	Z875	803.3	400	0.15	1.8	Open	;
R865	Z875	Z882	7.5	141.0	0.015	1.8	Open	;
R866	Z882	Z883	18.5	141.0	0.015	0	Open	;
R867	Z883	Z884	155.6	141.0	0.015	0	Open	;
R868	Z884	Z885	156.9	141.0	0.015	0	Open	;
R869	Z885	Z886	71.4	141.0	0.015	0	Open	;
R870	Z886	Z887	367.4	141.0	0.015	0	Open	;
R871	Z886	Z961	5	96.8	0.015	0	Open	;
R872	Z885	Z962	5	96.8	0.015	0	Open	;
R873	Z885	Z963	5	96.8	0.015	0	Open	;
R874	Z884	Z964	5	96.8	0.015	0	Open	;
R875	Z884	Z965	5	96.8	0.015	0	Open	;
R876	Z883	Z966	5	96.8	0.015	0	Open	;
R877	Z882	Z967	5	96.8	0.015	0	Open	;
R878	Z875	Z876	383.9	400	0.15	0	Open	;
R879	Z876	Z888	477.2	400	0.15	0	Open	;
R880	Z888	Z897	507.9	400	0.15	0	Open	;
R881	Z876	Z877	20	197.4	0.015	1.8	Open	;
R882	Z877	Z878	32.5	141.0	0.015	1.8	Open	;
R883	Z878	Z879	183.4	141.0	0.015	0	Open	;
R884	Z879	Z880	278.4	141.0	0.015	0	Open	;
R885	Z880	Z881	212.9	141.0	0.015	0	Open	;
R886	Z878	Z970	5	96.8	0.015	0	Open	;
R887	Z879	Z969	5	96.8	0.015	0	Open	;
R888	Z880	Z968	5	96.8	0.015	0	Open	;
R889	Z877	Z895	533.7	197.4	0.015	0	Open	;
R890	Z895	Z896	151	197.4	0.015	0	Open	;
R891	Z896	Z894	27.1	197.4	0.015	0	Open	;
R896	Z888	Z971	8.8	197.4	0.015	1.8	Open	;
R897	Z889	Z890	148	197.4	0.015	0	Open	;
R898	Z890	Z891	213	197.4	0.015	0	Open	;
R899	Z891	Z892	201.5	197.4	0.015	0	Open	;

R900	Z892	Z893	192.7	197.4	0.015	0	Open	;
R901	Z893	Z894	27.1	197.4	0.015	0	Open	;
R902	Z971	Z889	251.5	197.4	0.015	0	Open	;
R903	Z897	Z899	550.3	400	0.15	0	Open	;
R904	Z1248	Z960	264.3	312.8	0.015	1.8	Open	;
R905	Z960	Z935	1161.6	312.8	0.015	0	Open	;
R906	Z935	Z933	206.7	400	0.15	0	Open	;
R907	Z933	Z899	373.5	400	0.15	0	Open	;
R908	Z899	Z900	26.4	141.0	0.015	1.8	Open	;
R909	Z900	Z901	140	141.0	0.015	0	Open	;
R910	Z900	Z972	5	96.8	0.015	0	Open	;
R911	Z900	Z973	5	96.8	0.015	0	Open	;
R912	Z897	Z898	3.9	312.8	0.015	1.8	Open	;
R913	Z898	Z902	1143.2	312.8	0.015	0	Open	;
R914	Z898	Z974	5	96.8	0.015	0	Open	;
R915	Z902	Z903	33	312.8	0.015	0	Open	;
R916	Z903	Z904	90.3	312.8	0.015	0	Open	;
R917	Z904	Z905	13.5	312.8	0.015	0	Open	;
R918	Z905	Z906	15.7	312.8	0.015	0	Open	;
R919	Z906	Z907	146.3	312.8	0.015	0	Open	;
R920	Z907	Z908	109.5	312.8	0.015	0	Open	;
R921	Z908	Z909	204	312.8	0.015	0	Open	;
R922	Z909	Z910	100.9	312.8	0.015	0	Open	;
R923	Z909	Z981	5	96.8	0.015	0	Open	;
R924	Z908	Z980	5	96.8	0.015	0	Open	;
R925	Z907	Z979	5	96.8	0.015	0	Open	;
R926	Z906	Z978	5	96.8	0.015	0	Open	;
R927	Z905	Z977	5	96.8	0.015	0	Open	;
R928	Z904	Z976	5	96.8	0.015	0	Open	;
R929	Z903	Z975	5	96.8	0.015	0	Open	;
R930	Z933	Z934	12.9	312.8	0.015	1.8	Open	;
R931	Z934	Z932	294.6	312.8	0.015	0	Open	;
R932	Z932	Z931	209.5	312.8	0.015	0	Open	;
R933	Z931	Z930	37.3	312.8	0.015	0	Open	;
R934	Z930	Z929	363.5	312.8	0.015	0	Open	;
R935	Z929	Z928	69	312.8	0.015	0	Open	;
R936	Z928	Z927	99.8	312.8	0.015	0	Open	;
R937	Z927	Z926	192.8	312.8	0.015	0	Open	;

R938	Z926	Z925	150.8	312.8	0.015	0	Open	;
R939	Z925	Z924	33.5	312.8	0.015	0	Open	;
R940	Z924	Z923	101.4	312.8	0.015	0	Open	;
R941	Z923	Z922	150.2	312.8	0.015	0	Open	;
R942	Z922	Z921	46.9	312.8	0.015	0	Open	;
R943	Z921	Z920	36.5	312.8	0.015	0	Open	;
R944	Z920	Z919	210.77	312.8	0.015	0	Open	;
R945	Z919	Z918	114.5	312.8	0.015	0	Open	;
R946	Z918	Z917	69.4	312.8	0.015	0	Open	;
R947	Z917	Z916	105.3	312.8	0.015	0	Open	;
R948	Z916	Z915	91.6	312.8	0.015	0	Open	;
R949	Z915	Z914	143.4	312.8	0.015	0	Open	;
R950	Z914	Z913	145.1	312.8	0.015	0	Open	;
R951	Z913	Z912	191.7	312.8	0.015	0	Open	;
R952	Z912	Z911	249.3	312.8	0.015	0	Open	;
R953	Z911	Z910	143.2	312.8	0.015	0	Open	;
R954	Z934	Z982	5	96.8	0.015	0	Open	;
R955	Z932	Z983	5	96.8	0.015	0	Open	;
R956	Z931	Z984	5	96.8	0.015	0	Open	;
R957	Z930	Z985	20.46	96.8	0.015	0	Open	;
R958	Z929	Z986	5	96.8	0.015	0	Open	;
R959	Z928	Z987	5	96.8	0.015	0	Open	;
R960	Z927	Z988	5	96.8	0.015	0	Open	;
R961	Z926	Z989	5	96.8	0.015	0	Open	;
R962	Z924	Z990	5	96.8	0.015	0	Open	;
R963	Z923	Z991	5	96.8	0.015	0	Open	;
R964	Z922	Z992	5	96.8	0.015	0	Open	;
R965	Z921	Z993	5	96.8	0.015	0	Open	;
R966	Z920	Z994	5	96.8	0.015	0	Open	;
R967	Z918	Z995	5	96.8	0.015	0	Open	;
R968	Z917	Z996	5	96.8	0.015	0	Open	;
R969	Z916	Z997	5	96.8	0.015	0	Open	;
R970	Z915	Z998	5	96.8	0.015	0	Open	;
R971	Z914	Z999	5	96.8	0.015	0	Open	;
R972	Z913	Z1000	5	96.8	0.015	0	Open	;
R973	Z912	Z1001	5	96.8	0.015	0	Open	;
R974	Z911	Z1002	5	96.8	0.015	0	Open	;
R975	Z971	Z1011	5	96.8	0.015	0	Open	;

R976	Z889	Z1010	5	96.8	0.015	0	Open	;
R977	Z890	Z1009	5	96.8	0.015	0	Open	;
R978	Z891	Z1008	5	96.8	0.015	0	Open	;
R979	Z891	Z1007	5	96.8	0.015	0	Open	;
R980	Z892	Z1006	5	96.8	0.015	0	Open	;
R981	Z893	Z1005	5	96.8	0.015	0	Open	;
R982	Z896	Z1004	5	96.8	0.015	0	Open	;
R983	Z895	Z1003	5	96.8	0.015	0	Open	;
R984	Z894	Z1012	405.2	197.4	0.015	1.8	Open	;
R985	Z1012	Z1013	210.7	141	0.015	1.8	Open	;
R986	Z1013	Z1014	79.4	141	0.015	0	Open	;
R987	Z1014	Z1015	257.4	141	0.015	0	Open	;
R988	Z1015	Z1016	47.92	141	0.015	0	Open	;
R989	Z1016	Z1017	169.6	141	0.015	0	Open	;
R990	Z1017	Z1018	98.3	141.0	0.015	1.8	Open	;
R991	Z1018	Z1019	144.7	141.0	0.015	0	Open	;
R992	Z1019	Z1020	226.2	141.0	0.015	0	Open	;
R993	Z1017	Z1021	29.9	141.0	0.015	0	Open	;
R994	Z1021	Z1022	331.5	141.0	0.015	0	Open	;
R995	Z1012	Z1023	5	96.8	0.015	0	Open	;
R996	Z1012	Z1024	30.48	96.8	0.015	0	Open	;
R997	Z1013	Z1025	5	96.8	0.015	0	Open	;
R998	Z1014	Z1026	5	96.8	0.015	0	Open	;
R999	Z1015	Z1027	5	96.8	0.015	0	Open	;
R1000	Z1016	Z1028	5	96.8	0.015	0	Open	;
R1001	Z1018	Z1029	5	96.8	0.015	0	Open	;
R1002	Z1019	Z1030	5	96.8	0.015	0	Open	;
R1003	Z1021	Z1031	5	96.8	0.015	0	Open	;
R892	Z902	Z1038	8.6	141	0.015	1.8	Open	;
R893	Z1038	Z1037	31.8	141	0.015	0	Open	;
R894	Z1037	Z1036	110	141	0.015	0	Open	;
R895	Z1036	Z1035	56	141	0.015	0	Open	;
R1004	Z1035	Z1034	301.8	141	0.015	0	Open	;
R1005	Z1034	Z1033	178.1	141.0	0.015	0	Open	;
R1006	Z1033	Z1032	25.8	141.0	0.015	0	Open	;
R1007	Z1033	Z1039	5	96.8	0.015	0	Open	;
R1008	Z1034	Z1040	5	96.8	0.015	0	Open	;
R1009	Z1035	Z1041	5	96.8	0.015	0	Open	;

R1010	Z1036	Z1042	5	96.8	0.015	0	Open	;
R1011	Z1037	Z1043	5	96.8	0.015	0	Open	;
R1012	Z1038	Z1044	5	96.8	0.015	0	Open	;
R1013	Z1038	Z1045	5	96.8	0.015	0	Open	;
R1014	Z910	Z1046	15.4	141	0.015	1.8	Open	;
R1015	Z1046	Z1047	32.2	141	0.015	0	Open	;
R1016	Z1047	Z1048	50.4	141	0.015	0	Open	;
R1017	Z1048	Z1049	32	141	0.015	0	Open	;
R1018	Z1049	Z1050	74.2	141	0.015	0	Open	;
R1019	Z1050	Z1051	21.5	141	0.015	0	Open	;
R1020	Z1051	Z1052	390.4	141	0.015	0	Open	;
R1021	Z1052	Z1053	76.9	141.0	0.015	0	Open	;
R1022	Z1053	Z1054	44.6	141.0	0.015	0	Open	;
R1023	Z1054	Z1055	103.2	141.0	0.015	0	Open	;
R1024	Z1046	Z1064	5	96.8	0.015	0	Open	;
R1025	Z1047	Z1063	5	96.8	0.015	0	Open	;
R1026	Z1048	Z1062	5	96.8	0.015	0	Open	;
R1027	Z1049	Z1061	5	96.8	0.015	0	Open	;
R1028	Z1050	Z1060	5	96.8	0.015	0	Open	;
R1029	Z1051	Z1059	5	96.8	0.015	0	Open	;
R1030	Z1052	Z1058	5	96.8	0.015	0	Open	;
R1031	Z1053	Z1057	5	96.8	0.015	0	Open	;
R1032	Z1054	Z1056	5	96.8	0.015	0	Open	;
R1033	Z1065	Z1075	5	96.8	0.015	0	Open	;
R1034	Z1066	Z1074	5	96.8	0.015	0	Open	;
R1035	Z1067	Z1073	5	96.8	0.015	0	Open	;
R1036	Z1068	Z1072	5	96.8	0.015	0	Open	;
R1037	Z1069	Z1071	5	96.8	0.015	0	Open	;
R1038	Z919	Z1065	17.3	141	0.015	1.8	Open	;
R1039	Z1065	Z1066	231.1	141	0.015	0	Open	;
R1040	Z1066	Z1067	215.1	141	0.015	0	Open	;
R1041	Z1067	Z1068	21.9	141	0.015	0	Open	;
R1042	Z1068	Z1069	56.7	141.0	0.015	0	Open	;
R1043	Z1069	Z1070	11.7	141.0	0.015	0	Open	;
R1044	Z1076	Z1082	5	96.8	0.015	0	Open	;
R1045	Z1076	Z1083	5	96.8	0.015	0	Open	;
R1046	Z1077	Z1084	5	96.8	0.015	0	Open	;
R1047	Z1078	Z1085	5	96.8	0.015	0	Open	;

R1048	Z1079	Z1086	5	96.8	0.015	0	Open	;
R1049	Z1080	Z1087	5	96.8	0.015	0	Open	;
R1050	Z925	Z1076	13.15	141	0.015	1.8	Open	;
R1051	Z1076	Z1077	381.1	141	0.015	0	Open	;
R1052	Z1077	Z1078	146.5	141	0.015	0	Open	;
R1053	Z1078	Z1079	111	141	0.015	0	Open	;
R1054	Z1079	Z1080	368.5	141	0.015	0	Open	;
R1055	Z1080	Z1081	158.1	141.0	0.015	0	Open	;
R1056	Z936	Z1088	12.2	141.0	0.015	1.8	Open	;
R1057	Z1088	Z1089	58.7	141.0	0.015	0	Open	;
R1058	Z1089	Z1090	77.3	141.0	0.015	0	Open	;
R1059	Z1090	Z1091	99.5	141.0	0.015	0	Open	;
R1060	Z1091	Z1094	28.5	141.0	0.015	0	Open	;
R1061	Z1094	Z1092	40.2	141.0	0.015	1.8	Open	;
R1062	Z1092	Z1093	79.4	141.0	0.015	0	Open	;
R1063	Z1094	Z1095	11.4	141.0	0.015	0	Open	;
R1064	Z1095	Z1096	145.5	141.0	0.015	0	Open	;
R1065	Z1095	Z1102	11.82	96.8	0.015	0	Open	;
R1066	Z1092	Z1101	5	96.8	0.015	0	Open	;
R1067	Z1091	Z1100	5	96.8	0.015	0	Open	;
R1068	Z1090	Z1099	5	96.8	0.015	0	Open	;
R1069	Z1089	Z1098	5	96.8	0.015	0	Open	;
R1070	Z1088	Z1097	5	96.8	0.015	0	Open	;
R1071	Z935	Z936	2.7	312.8	0.015	1.8	Open	;
R1072	Z936	Z937	12	312.8	0.015	0	Open	;
R1073	Z937	Z938	688.3	312.8	0.015	0	Open	;
R1074	Z938	Z1108	530.5	221.2	0.015	1.8	Open	;
R1075	Z938	Z939	10.60	141	0.015	1.8	Open	;
R1076	Z939	Z1246	136.2	141	0.015	0	Open	;
R1077	Z939	Z1103	5	96.8	0.015	0	Open	;
R1079	Z942	Z943	150.6	141	0.015	0	Open	;
R1080	Z943	Z944	381.9	141	0.015	0	Open	;
R1082	Z945	Z946	141.3	141	0.015	0	Open	;
R1083	Z946	Z947	90.4	141	0.015	0	Open	;
R1084	Z947	Z948	188.8	141	0.015	0	Open	;
R1085	Z948	Z949	293.7	141	0.015	0	Open	;
R1086	Z949	Z950	28.6	141	0.015	1.8	Open	;
R1088	Z951	Z952	52	197.4	0.015	0	Open	;

R1089	Z952	Z953	23.4	197.4	0.015	0	Open	;
R1090	Z953	Z954	174.2	197.4	0.015	0	Open	;
R1091	Z954	Z955	16.5	197.4	0.015	0	Open	;
R1092	Z955	Z956	37.2	197.4	0.015	0	Open	;
R1093	Z956	Z957	114	197.4	0.015	0	Open	;
R1095	Z1104	Z1105	268.6	141.0	0.015	0	Open	;
R1096	Z1104	Z1107	5	96.8	0.015	0	Open	;
R1097	Z1104	Z1106	5	96.8	0.015	0	Open	;
R1099	Z1108	Z1111	76	141	0.015	1.8	Open	;
R1100	Z1111	Z1109	16.7	141	0.015	0	Open	;
R1101	Z1109	Z1110	69.3	141.0	0.015	0	Open	;
R1102	Z1109	Z1112	94	141	0.015	1.8	Open	;
R1103	Z1112	Z1113	121.5	141	0.015	0	Open	;
R1104	Z1113	Z1114	12.3	141.0	0.015	0	Open	;
R1105	Z1111	Z1117	5	96.8	0.015	0	Open	;
R1106	Z1110	Z1118	5	96.8	0.015	0	Open	;
R1107	Z1112	Z1116	5	96.8	0.015	0	Open	;
R1108	Z1112	Z1119	5	96.8	0.015	0	Open	;
R1109	Z1113	Z1115	5	96.8	0.015	0	Open	;
R1110	Z942	Z1120	5	96.8	0.015	0	Open	;
R1111	Z942	Z1121	5	96.8	0.015	0	Open	;
R1112	Z943	Z1122	5	96.8	0.015	0	Open	;
R1113	Z943	Z1123	5	96.8	0.015	0	Open	;
R1114	Z944	Z1124	5	96.8	0.015	0	Open	;
R1115	Z944	Z1125	5	96.8	0.015	0	Open	;
R1116	Z945	Z1126	5	96.8	0.015	0	Open	;
R1117	Z945	Z1127	5	96.8	0.015	0	Open	;
R1118	Z946	Z1128	5	96.8	0.015	0	Open	;
R1119	Z947	Z1129	5	96.8	0.015	0	Open	;
R1120	Z948	Z1130	5	96.8	0.015	0	Open	;
R1121	Z1130	Z1132	5	96.8	0.015	0	Open	;
R1122	Z1130	Z1131	5	96.8	0.015	0	Open	;
R1123	Z949	Z1133	5	96.8	0.015	0	Open	;
R1124	Z950	Z1134	5	96.8	0.015	0	Open	;
R1125	Z951	Z1135	5	96.8	0.015	0	Open	;
R1126	Z952	Z1136	5	96.8	0.015	0	Open	;
R1127	Z953	Z1137	5	96.8	0.015	0	Open	;
R1128	Z956	Z1141	5	96.8	0.015	0	Open	;

R1129	Z955	Z1140	5	96.8	0.015	0	Open	;
R1130	Z954	Z1138	5	96.8	0.015	0	Open	;
R1131	Z954	Z1139	5	96.8	0.015	0	Open	;
R1132	Z1108	Z1142	122	197.4	0.015	1.8	Open	;
R1133	Z1142	Z1143	197.4	197.4	0.015	0	Open	;
R1134	Z1143	Z1144	197.4	141	0.015	1.8	Open	;
R1135	Z1144	Z1145	4.8	141	0.015	1.8	Open	;
R1136	Z1145	Z1146	64.4	141	0.015	0	Open	;
R1137	Z1146	Z1147	21.4	141.0	0.015	0	Open	;
R1138	Z1147	Z1148	77.3	141.0	0.015	0	Open	;
R1139	Z1142	Z1153	5	96.8	0.015	0	Open	;
R1140	Z1143	Z1152	5	96.8	0.015	0	Open	;
R1141	Z1145	Z1151	5	96.8	0.015	0	Open	;
R1142	Z1146	Z1150	5	96.8	0.015	0	Open	;
R1143	Z1147	Z1149	5	96.8	0.015	0	Open	;
R1144	Z1144	Z1154	494	141	0.015	0	Open	;
R1145	Z1154	Z1155	7.5	141	0.015	0	Open	;
R1146	Z1155	Z1156	114.7	141.0	0.015	1.8	Open	;
R1147	Z1155	Z1158	5	96.8	0.015	0	Open	;
R1148	Z1154	Z1157	5	96.8	0.015	0	Open	;
R1149	Z957	Z958	288	197.4	0.015	0	Open	;
R1150	Z959	Z958	122.3	197.4	0.015	0	Open	;
R1151	Z293	Z959	453	197.4	0.015	1.8	Open	;
R1152	Z959	Z1159	5	96.8	0.015	0	Open	;
R1153	Z1163	Z1170	5	96.8	0.015	0	Open	;
R1154	Z1163	Z1171	5	96.8	0.015	0	Open	;
R1155	Z1162	Z1168	5	96.8	0.015	0	Open	;
R1156	Z1162	Z1169	5	96.8	0.015	0	Open	;
R1157	Z1161	Z1167	5	96.8	0.015	0	Open	;
R1158	Z1160	Z1164	5	96.8	0.015	0	Open	;
R1159	Z958	Z1166	5	96.8	0.015	0	Open	;
R1162	Z1244	Z1161	6.6	141.0	0.015	0	Open	;
R1163	Z1161	Z1243	88.2	141.0	0.015	0	Open	;
R1164	Z1162	Z1163	347.6	141.0	0.015	0	Open	;
R1165	Z1172	Z1174	5	96.8	0.015	0	Open	;
R1166	Z960	Z1175	3.8	221.2	0.015	1.8	Open	;
R1167	Z1175	Z1172	48.5	141.0	0.015	1.8	Open	;
R1168	Z1172	Z1173	181.7	141.0	0.015	0	Open	;

R1169	Z1175	Z1176	9.2	221.2	0.015	0	Open	;
R1170	Z1176	Z1177	17	141.0	0.015	1.8	Open	;
R1171	Z1177	Z1178	11.4	141.0	0.015	0	Open	;
R1172	Z1178	Z1179	155	141.0	0.015	0	Open	;
R1173	Z1179	Z1180	108.8	141.0	0.015	0	Open	;
R1174	Z1180	Z1181	24.6	141.0	0.015	0	Open	;
R1175	Z1180	Z1185	5	96.8	0.015	0	Open	;
R1176	Z1179	Z1184	5	96.8	0.015	0	Open	;
R1177	Z1178	Z1183	5	96.8	0.015	0	Open	;
R1178	Z1177	Z1182	5	96.8	0.015	0	Open	;
R1179	Z1176	Z1186	193.3	221.2	0.015	0	Open	;
R1180	Z1186	Z1187	47.2	141.0	0.015	1.8	Open	;
R1181	Z1187	Z1188	12.6	141.0	0.015	0	Open	;
R1182	Z1188	Z1189	85.2	141.0	0.015	0	Open	;
R1183	Z1189	Z1190	12.1	141.0	0.015	0	Open	;
R1184	Z1190	Z1191	108.7	141.0	0.015	0	Open	;
R1185	Z1190	Z1192	5	96.8	0.015	0	Open	;
R1186	Z1189	Z1193	5	96.8	0.015	0	Open	;
R1187	Z1188	Z1194	5	96.8	0.015	0	Open	;
R1188	Z1187	Z1195	5	96.8	0.015	0	Open	;
R1189	Z1186	Z1196	22.1	197.4	0.015	1.8	Open	;
R1190	Z1196	Z1197	11.9	197.4	0.015	0	Open	;
R1191	Z1197	Z1198	70.1	197.4	0.015	0	Open	;
R1192	Z1198	Z1199	40.4	141.0	0.015	1.8	Open	;
R1193	Z1199	Z1200	31.7	141.0	0.015	0	Open	;
R1194	Z1200	Z1201	28.9	141.0	0.015	0	Open	;
R1195	Z1198	Z1202	8.6	141.0	0.015	1.8	Open	;
R1196	Z1202	Z1203	149.5	141.0	0.015	0	Open	;
R1197	Z1203	Z1204	36.3	141.0	0.015	0	Open	;
R1198	Z1204	Z1205	34	141.0	0.015	0	Open	;
R1199	Z1196	Z1206	5	96.8	0.015	0	Open	;
R1200	Z1197	Z1207	5	96.8	0.015	0	Open	;
R1201	Z1202	Z1208	5	96.8	0.015	0	Open	;
R1202	Z1199	Z1209	5	96.8	0.015	0	Open	;
R1203	Z1200	Z1210	5	96.8	0.015	0	Open	;
R1204	Z1203	Z1212	5	96.8	0.015	0	Open	;
R1205	Z1204	Z1211	5	96.8	0.015	0	Open	;
R1206	Z1036	Z1213	5	96.8	0.015	0	Open	;

R1207	Z937	Z1214	21.07	96.8	0.015	0	Open	;
R1208	Z116	Z1215	5	96.8	0.015	0	Open	;
R1209	Z116	Z1216	5	96.8	0.015	0	Open	;
R1210	Z52	Z1217	5	96.8	0.015	0	Open	;
R1211	Z32	Z1218	5	96.8	0.015	0	Open	;
R1212	Z33	Z1219	5	96.8	0.015	0	Open	;
R1213	Z34	Z1220	5	96.8	0.015	0	Open	;
R1214	Z35	Z1221	5	96.8	0.015	0	Open	;
R1215	Z36	Z1222	5	96.8	0.015	0	Open	;
R1216	Z37	Z1223	5	96.8	0.015	0	Open	;
R1217	Z38	Z1224	5	96.8	0.015	0	Open	;
R1218	Z660	Z1225	6.8	141.0	0.015	1.8	Open	;
R1219	Z1225	Z1226	3.2	141.0	0.015	0	Open	;
R1220	Z1226	Z1228	10.3	141.0	0.015	0	Open	;
R1221	Z1226	Z1229	5	96.8	0.015	0	Open	;
R1222	Z1225	Z1227	36.5	141.0	0.015	1.8	Open	;
R1223	Z1227	Z1230	5	96.8	0.015	0	Open	;
R1224	Z1227	Z1231	5	96.8	0.015	0	Open	;
R1225	Z658	Z1232	2.7	141.0	0.015	1.8	Open	;
R1226	Z1232	Z1234	7.4	141.0	0.015	0	Open	;
R1227	Z1234	Z1236	10	141.0	0.015	0	Open	;
R1228	Z1236	Z1235	31.2	141.0	0.015	0	Open	;
R1229	Z1232	Z1233	10.3	141.0	0.015	1.8	Open	;
R1230	Z1234	Z1238	5	96.8	0.015	0	Open	;
R1231	Z1236	Z1237	5	96.8	0.015	0	Open	;
R1	Z384	Z1239	5	96.8	0.015	0	Open	;
R2	Z384	Z1240	5	96.8	0.015	0	Open	;
R1232	Z383	Z1241	5	96.8	0.015	0	Open	;
R1233	Z382	Z1242	5	96.8	0.015	0	Open	;
R430	Z462	Z461	276.2	312.8	0.015	0	Open	;
R1234	Z1243	Z1162	14.2	141.0	0.015	0	Open	;
R1235	Z1243	Z1104	275.3	141.0	0.015	1.8	Open	;
R1236	Z1245	Z1244	357.4	141	0.015	0	Open	;
R1237	Z1245	Z292	5	98.6	0.015	0	Open	;
R1238	Z1244	Z1160	164.3	141.0	0.015	1.8	Open	;
R3187	Z951	Z950	400.7	197.4	0.015	0	Open	;
R1239	Z1246	Z940	5	96.8	0.015	0	Open	;
R1240	Z1246	Z1247	543	141	0.015	0	Open	;

R1241	Z1247	Z942	5.5	141	0.015	0	Open	;
R1078	Z3	Z1248	13465	600	0.15	1.8	Open	;
R1081	Z1248	Z293	68.4	400	0.15	1.8	Open	;

[DEMANDS]

;Junction	Demand	Pattern	Category
-----------	--------	---------	----------

[STATUS]

;ID	Status/Setting
P1	Closed

[PATTERNS]

;ID	Multipliers
-----	-------------

[CURVES]

;ID	X-Value	Y-Value
;PUMP: 150 L/S - 80	m	
C1	150	80

[CONTROLS]

[RULES]

[ENERGY]

Global Efficiency	75
Global Price	0
Demand Charge	0

[EMITTERS]

;Junction	Coefficient
-----------	-------------

[QUALITY]

;Node	InitQual
-------	----------

[SOURCES]

;Node	Type	Quality	Pattern
-------	------	---------	---------

```
[REACTIONS]
;Type      Pipe/Tank      Coefficient
```

```
[REACTIONS]
Order Bulk      1
Order Tank      1
Order Wall      1
Global Bulk     0
Global Wall     0
Limiting Potential 0
Roughness Correlation 0
```

```
[MIXING]
;Tank      Model
```

```
[TIMES]
Duration      0
Hydraulic Timestep 1:00
Quality Timestep 0:05
Pattern Timestep 1:00
Pattern Start 0:00
Report Timestep 1:00
Report Start 0:00
Start ClockTime 12 am
Statistic      None
```

```
[REPORT]
Status      Full
Summary      No
Page      0
```

```
[OPTIONS]
Units      LPS
Headloss    D-W
Specific Gravity 1
Viscosity 1
Trials      50
```

```
Accuracy      0.001
CHECKFREQ      2
MAXCHECK      10
DAMPLIMIT      0
Unbalanced      Continue 10
Pattern      1
Demand Multiplier 1.0
Emitter Exponent 0.5
Quality      None mg/L
Diffusivity 1
Tolerance      0.01
```

```
[LABELS]
;X-Coord      Y-Coord      Label & Anchor Node
```

```
[BACKDROP]
DIMENSIONS      0.000      0.000      10920.713      6492.180
UNITS      Meters
FILE      U:\L A V O R I\FOSSO VECCHIO 38\studio idraulico\epanet_valletta\valletta.bmp
OFFSET      0.00      0.00
```

```
[END]
```

2.3 IPOTESI DI FUNZIONAMENTO A

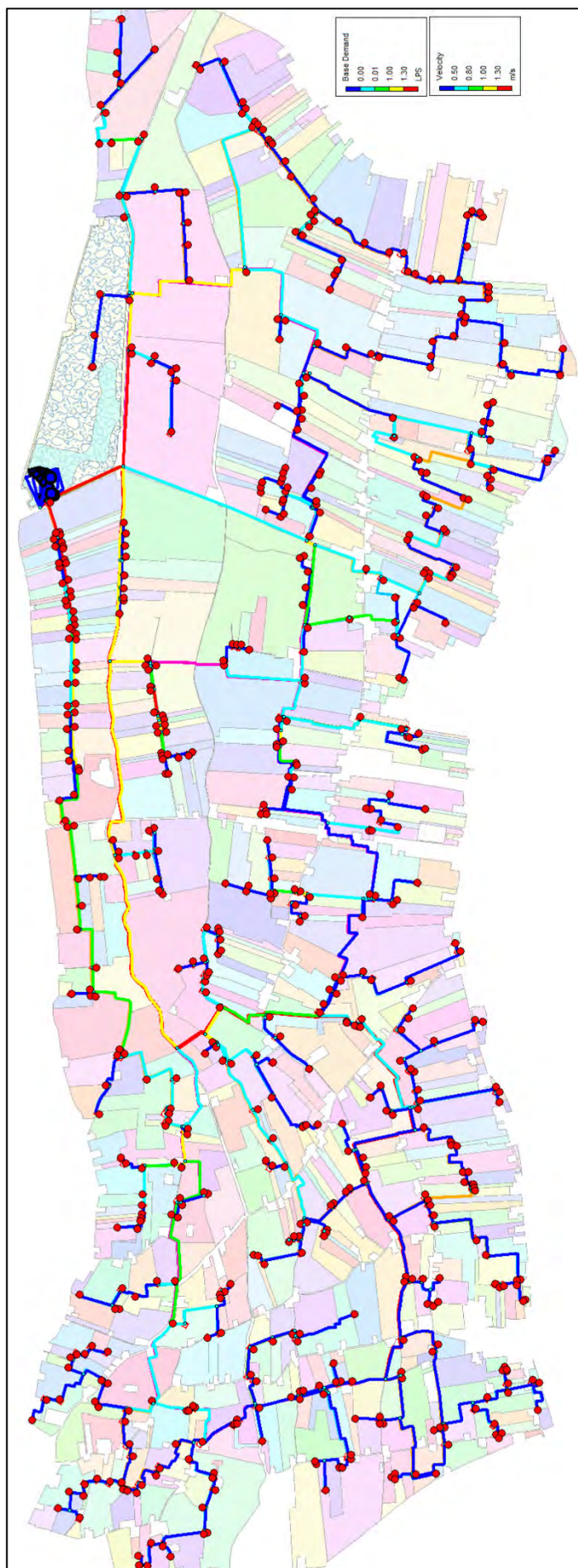


Figura 15 – Risultati della simulazione : base demand nei nodi e velocità nei rami

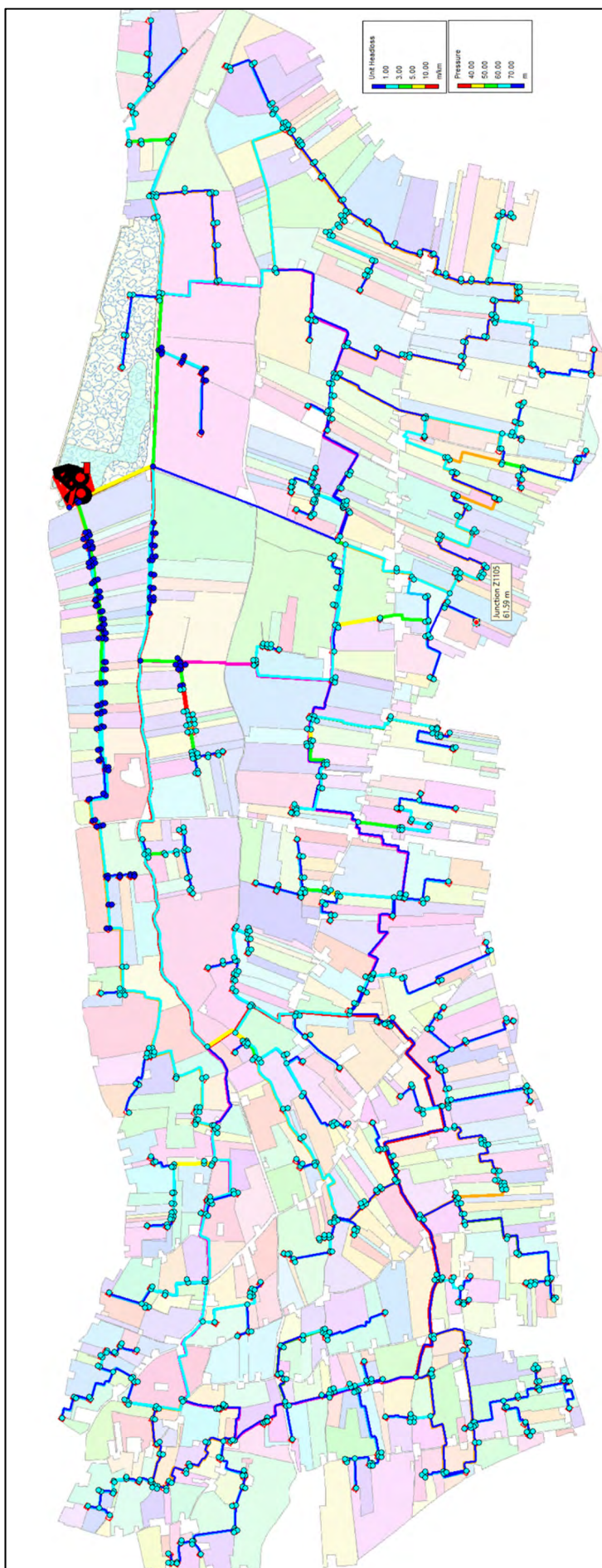


Figura 16 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE VILLA PRATI IPOTESI FUNZIONAMENTO A

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
G20	Z1	Z2	30	600
G1	Z2	Z3	577.2	600
R3	Z2	Z4	18.5	400
R4	Z4	Z5	213.4	400
R5	Z5	Z6	18.6	400
R6	Z6	Z7	50	400
R7	Z7	Z8	32.8	400
R8	Z8	Z9	10	400
R9	Z9	Z10	77.7	400
R10	Z10	Z11	27.2	400
R11	Z11	Z12	113.0	400
R12	Z12	Z13	80.80	400
R13	Z13	Z14	39.50	400
R14	Z14	Z15	100.7	400
R15	Z15	Z16	53.2	400
R16	Z16	Z17	37.1	400
R17	Z17	Z29	27.4	400
R18	Z29	Z18	29.8	400
R19	Z18	Z19	37.40	400
R20	Z19	Z20	161.3	400
R21	Z20	Z21	49.5	400
R22	Z21	Z22	92.5	400
R23	Z22	Z23	139.4	400
R24	Z23	Z24	56.4	400
R25	Z24	Z25	103.7	400
R26	Z25	Z26	297.1	400
R27	Z26	Z27	13	400
R28	Z27	Z28	449.3	400
R56	Z4	Z56	5	96.8
R57	Z5	Z57	5	96.8
R58	Z6	Z58	5	96.8
R59	Z7	Z59	5	96.8
R60	Z8	Z60	5	96.8
R61	Z9	Z61	5	96.8
R62	Z10	Z62	5	96.8
R63	Z11	Z63	5	96.8
R64	Z12	Z64	5	98.6

Link ID	Start Node	End Node	Length m	Diameter mm
R65	Z13	Z65	5	96.8
R66	Z14	Z66	5	96.8
R67	Z15	Z67	5	96.8
R68	Z16	Z68	5	96.8
R69	Z17	Z69	5	96.8
R29	Z29	Z72	9	141
R71	Z18	Z70	5	96.8
R72	Z19	Z71	5	96.8
R73	Z20	Z73	5	96.8
R74	Z21	Z74	5	96.8
R75	Z22	Z75	5	96.8
R76	Z23	Z76	5	96.8
R77	Z24	Z77	5	96.8
R78	Z25	Z78	5	96.8
R79	Z26	Z79	5	96.8
R80	Z27	Z80	5	96.8
R81	Z28	Z81	5	96.8
R30	Z72	Z82	9.7	141
R31	Z82	Z83	159.2	141.0
R32	Z83	Z84	38.2	141.0
R33	Z84	Z85	117.3	141.0
R34	Z85	Z86	113.7	141.0
R35	Z86	Z87	27.4	141.0
R36	Z87	Z88	117.2	141.0
R37	Z88	Z89	50.80	141.0
R38	Z89	Z90	35.05	141.0
R91	Z82	Z91	5	96.8
R92	Z83	Z92	5	96.8
R93	Z84	Z93	5	96.8
R94	Z85	Z94	5	96.8
R95	Z86	Z95	5	96.8
R96	Z87	Z96	5	96.8
R97	Z88	Z97	5	96.8
R98	Z89	Z98	5	96.8
R39	Z72	Z99	60.2	141.0
R40	Z99	Z100	309.8	141.0
R41	Z100	Z101	151.6	141.0
R42	Z101	Z102	575	141.0
R43	Z102	Z103	103.5	141.0
R44	Z103	Z104	144.7	141.0
R45	Z104	Z105	66.4	141.0
R46	Z105	Z106	256.8	141.0
R47	Z106	Z107	110.74	141.0
R107	Z106	Z108	5	96.8
R108	Z105	Z109	5	96.8
R109	Z104	Z110	5	96.8
R110	Z103	Z111	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R111	Z102	Z112	5	96.8
R112	Z101	Z113	5	96.8
R113	Z100	Z114	5	96.8
R114	Z99	Z115	5	96.8
R49	Z28	Z116	80	400
R50	Z116	Z117	380.3	400
R51	Z117	Z118	195.4	400
R52	Z118	Z119	163.7	400
R53	Z119	Z120	336.9	400
R54	Z120	Z121	169.6	400
R55	Z117	Z122	16.1	141.0
R120	Z122	Z123	84.1	141.0
R121	Z123	Z124	71.9	141.0
R122	Z122	Z125	15.04	96.8
R123	Z123	Z126	13.85	96.8
R124	Z107	Z127	5	96.8
R125	Z128	Z124	5	96.8
R126	Z124	Z129	26	141.0
R127	Z129	Z130	5	96.8
R82	Z30	Z31	61.5	400
R83	Z31	Z32	13.8	400
R84	Z121	Z30	623	400
R85	Z32	Z33	322.7	400
R86	Z33	Z34	261.2	400
R87	Z34	Z35	231.7	400
R88	Z35	Z36	34.2	400
R89	Z36	Z37	49.8	400
R90	Z37	Z38	11	400
R99	Z38	Z39	127.3	400
R100	Z39	Z40	3.8	400
R101	Z31	Z43	14.3	141.0
R102	Z43	Z45	243.6	141.0
R103	Z45	Z48	218.5	141.0
R104	Z45	Z46	5	96.8
R105	Z43	Z44	5	96.8
R106	Z30	Z42	5	96.8
R115	Z118	Z49	5	96.8
R116	Z119	Z50	5	141
R117	Z120	Z51	5	96.8
R118	Z121	Z52	12.1	141.0
R119	Z52	Z53	5.5	141.0
R128	Z53	Z54	140.8	141.0
R129	Z53	Z131	5	96.8
R130	Z53	Z55	5	96.8
G131	Z3	Z132	618	600
R131	Z132	Z133	4	141.0
R132	Z133	Z134	19.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R133	Z134	Z135	81.5	141.0
R134	Z135	Z136	81.4	141.0
R135	Z136	Z137	75	141.0
R136	Z133	Z138	98.5	141.0
R137	Z138	Z139	90.2	141.0
R138	Z139	Z140	70	141.0
R139	Z140	Z141	15.2	141.0
R140	Z141	Z142	97	141.0
R141	Z141	Z157	5	96.8
R142	Z140	Z158	5	96.8
R143	Z139	Z159	5	96.8
R144	Z138	Z160	5	96.8
R145	Z134	Z161	5	96.8
R146	Z135	Z162	5	96.8
R147	Z136	Z163	5	96.8
G148	Z132	Z143	701.3	600
G149	Z143	Z147	1433.79	600
R149	Z147	Z145	5.8	141.0
R150	Z145	Z148	5.7	141.0
R151	Z148	Z149	120	141.0
R152	Z149	Z150	76.8	141.0
R153	Z150	Z151	47.6	141.0
R154	Z151	Z152	12.7	141.0
R155	Z152	Z153	131	141.0
R156	Z151	Z154	189.1	141.0
R157	Z154	Z155	78.3	141.0
R158	Z155	Z156	31	141.0
R159	Z145	Z146	17.77	141.0
R160	Z146	Z144	90.77	141.0
R161	Z146	Z166	5	96.8
R162	Z148	Z167	5	96.8
R163	Z149	Z168	5	96.8
R164	Z150	Z169	5	96.8
R165	Z152	Z170	5	96.8
R166	Z153	Z171	5	96.8
R167	Z153	Z172	5	96.8
R168	Z154	Z173	5	96.8
R169	Z155	Z174	5	96.8
G170	Z147	Z175	1472.3	600
G171	Z175	Z176	219.9	400
G172	Z176	Z177	220.58	400
R172	Z177	Z178	10.81	197.4
R173	Z178	Z179	171.80	197.4
R174	Z179	Z180	60	197.4
R175	Z180	Z181	50	197.4
R176	Z181	Z182	13.6	197.4
R177	Z182	Z183	82.8	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R178	Z183	Z184	11.4	141.0
R179	Z184	Z185	89.8	141.0
R180	Z185	Z186	109.2	141.0
R181	Z183	Z187	223.6	141.0
R182	Z187	Z188	94.3	141.0
R183	Z188	Z189	22.2	141.0
R184	Z189	Z190	15.82	141.0
R185	Z188	Z191	32.5	141.0
R186	Z191	Z192	87	141.0
R187	Z192	Z193	10.5	141.0
R188	Z178	Z194	17.19	96.8
R189	Z179	Z195	5	96.8
R190	Z180	Z196	5	96.8
R191	Z181	Z197	5	96.8
R192	Z182	Z198	5	96.8
R193	Z184	Z199	5	96.8
R194	Z185	Z200	5	96.8
R195	Z187	Z201	5	96.8
R196	Z189	Z202	5	96.8
R197	Z191	Z203	5	96.8
R198	Z192	Z204	5	96.8
G199	Z177	Z205	379.4	400
G200	Z205	Z206	385	400
G201	Z206	Z207	302.8	500
G202	Z207	Z208	873.57	500
G203	Z208	Z209	159.2	500
R200	Z207	Z210	2.6	141.0
R201	Z210	Z211	5.7	141.0
R202	Z211	Z212	52.01	141.0
R203	Z212	Z213	6.8	141.0
R204	Z210	Z214	4	141.0
R205	Z214	Z215	47.3	141.0
R206	Z212	Z216	5	96.8
R207	Z211	Z217	5	96.8
R208	Z214	Z218	21.86	96.8
R209	Z208	Z219	3.7	197.4
R210	Z219	Z220	46.2	197.4
R211	Z220	Z221	22.1	197.4
R212	Z221	Z222	4	197.4
R213	Z222	Z223	83.2	197.4
R214	Z223	Z224	144.3	197.4
R215	Z224	Z225	18.9	197.4
R216	Z225	Z226	77.3	197.4
R217	Z226	Z227	137.1	197.4
R218	Z227	Z231	104.6	141.0
R219	Z231	Z232	344.4	141.0
R220	Z232	Z233	51.3	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R221	Z227	Z228	228.1	141.0
R222	Z228	Z229	98.5	141.0
R223	Z229	Z230	78.6	141.0
R224	Z221	Z234	539.7	141.0
R225	Z234	Z235	26	141.0
R226	Z235	Z236	70.4	141.0
R48	Z143	Z164	271.5	197.4
R70	Z164	Z41	3	197.4
R148	Z41	Z253	23	197.4
R170	Z47	Z237	119.4	197.4
R171	Z237	Z238	16.2	141
R199	Z238	Z239	153.6	141
R227	Z239	Z240	32.5	141
R228	Z240	Z241	33.8	141
R229	Z241	Z242	34.3	141
R230	Z242	Z243	45.9	141
R231	Z243	Z244	131.1	141
R232	Z244	Z245	20.3	141
R233	Z245	Z246	16.4	141
R234	Z246	Z268	18.2	141.0
R235	Z247	Z248	70.4	141.0
R236	Z248	Z249	37.8	141.0
R237	Z246	Z250	3	141.0
R238	Z250	Z251	103	141.0
R239	Z41	Z252	5	96.8
R240	Z253	Z47	27.7	197.4
R241	Z253	Z254	5	96.8
R242	Z253	Z255	5	141.0
R243	Z47	Z256	5	96.8
R244	Z237	Z257	5	96.8
R245	Z238	Z258	5	96.8
R246	Z239	Z259	5	96.8
R247	Z240	Z260	5	96.8
R248	Z241	Z261	5	96.8
R249	Z242	Z262	5	96.8
R250	Z242	Z263	5	96.8
R251	Z243	Z265	5	96.8
R252	Z243	Z264	5	96.8
R253	Z244	Z266	5	96.8
R254	Z245	Z267	5	96.8
R255	Z268	Z247	70.4	141.0
R256	Z268	Z271	5	96.8
R257	Z247	Z270	5	96.8
R258	Z248	Z269	5	96.8
R259	Z250	Z272	5	96.8
R260	Z251	Z273	5	96.8
R261	Z251	Z274	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R263	Z165	Z275	8	141.0
R264	Z275	Z276	6	141.0
R265	Z276	Z277	136.6	141.0
R266	Z277	Z278	40	141.0
R267	Z278	Z279	14.2	141.0
R268	Z279	Z280	67.4	141.0
R269	Z165	Z281	589.9	141
R270	Z281	Z282	7.7	141.0
R271	Z281	Z291	382.8	400
R272	Z284	Z286	145.2	141.0
R273	Z286	Z287	120.5	141.0
R274	Z287	Z288	116.4	141.0
R275	Z288	Z289	133.1	141.0
R276	Z289	Z290	17.6	141.0
R277	Z291	Z284	7	141
R278	Z284	Z283	184.7	141.0
R279	Z284	Z285	5	141
R280	Z285	Z1245	300	141
R281	Z291	Z293	557.27	400
R282	Z275	Z295	5	96.8
R283	Z276	Z296	5	96.8
R284	Z277	Z297	5	96.8
R285	Z278	Z298	5	96.8
R286	Z279	Z299	5	96.8
R287	Z282	Z300	5	96.8
R288	Z282	Z301	5	96.8
R289	Z285	Z302	5	96.8
R290	Z286	Z306	5	96.8
R291	Z287	Z305	5	96.8
R292	Z288	Z304	5	96.8
R293	Z289	Z303	5	96.8
R294	Z281	Z294	325.5	400
R295	Z294	Z307	2.8	197.4
R296	Z307	Z308	593.6	141
R297	Z308	Z321	5	96.8
R298	Z308	Z309	338	141.0
R299	Z309	Z310	7.5	141.0
R300	Z310	Z311	59.00	141.0
R301	Z311	Z313	44.3	141.0
R302	Z313	Z314	9.8	141.0
R303	Z314	Z316	70	141.0
R304	Z311	Z317	419.9	141.0
R305	Z317	Z318	5	96.8
R306	Z317	Z319	8.4	141.0
R307	Z314	Z315	5	96.8
R308	Z313	Z312	5	96.8
R309	Z310	Z320	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R310	Z294	Z322	1122.7	400
R311	Z307	Z323	9	197.4
R312	Z323	Z324	94	197.4
R313	Z324	Z325	81	141
R314	Z325	Z326	21.8	141
R315	Z326	Z327	11.5	141
R316	Z327	Z328	204.3	141.0
R317	Z328	Z329	7.8	141.0
R318	Z329	Z330	96	141.0
R319	Z330	Z331	86	141.0
R320	Z331	Z332	292.5	141.0
R321	Z332	Z333	5.6	141.0
R322	Z333	Z334	38	141.0
R323	Z323	Z336	5	96.8
R324	Z323	Z335	5	96.8
R325	Z324	Z337	5	96.8
R326	Z325	Z338	5	96.8
R327	Z326	Z339	5	96.8
R328	Z327	Z340	5	96.8
R329	Z328	Z341	5	96.8
R330	Z329	Z342	5	96.8
R331	Z330	Z343	5	96.8
R332	Z330	Z344	5	96.8
R333	Z331	Z345	5	96.8
R334	Z332	Z346	5	96.8
R335	Z333	Z347	5	96.8
R336	Z334	Z349	5	96.8
R337	Z334	Z348	5	96.8
R338	Z322	Z350	290	141.0
R339	Z351	Z352	246.5	141.0
R340	Z352	Z353	126.3	141.0
R341	Z353	Z354	167	141.0
R342	Z354	Z355	207	141.0
R343	Z355	Z356	57.1	141.0
R344	Z355	Z357	257.4	141.0
R345	Z354	Z363	5	96.8
R346	Z354	Z362	5	96.8
R347	Z353	Z361	5	96.8
R348	Z352	Z360	5	96.8
R349	Z351	Z359	5	96.8
R350	Z350	Z358	5	96.8
R351	Z350	Z351	8.8	141.0
R352	Z322	Z364	835.5	400
R353	Z364	Z365	825.7	400
R354	Z206	Z365	302.8	400
R355	Z364	Z366	5	141.0
R356	Z366	Z367	142.5	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R357	Z367	Z368	297.05	141.0
R358	Z366	Z388	5	96.8
R359	Z367	Z387	5	96.8
R360	Z367	Z386	5	96.8
R361	Z364	Z369	22.8	197.4
R362	Z369	Z389	48	197.4
R363	Z389	Z370	386	197.4
R364	Z370	Z371	8.8	141.0
R365	Z371	Z372	174.8	141.0
R366	Z372	Z373	135.5	141.0
R367	Z373	Z374	42.4	141.0
R368	Z389	Z390	127	141.0
R369	Z370	Z375	62.3	141.0
R370	Z375	Z376	2	141.0
R371	Z376	Z377	155.7	141.0
R372	Z377	Z378	9.8	141.0
R373	Z378	Z379	82	141.0
R374	Z379	Z380	143.1	141.0
R375	Z380	Z381	124.5	141.0
R376	Z378	Z382	30.6	141.0
R377	Z382	Z383	9.4	141.0
R378	Z383	Z384	166.7	141.0
R379	Z384	Z385	152.4	141.0
R380	Z369	Z391	5	96.8
R381	Z373	Z394	5	96.8
R382	Z372	Z393	5	96.8
R383	Z371	Z392	5	96.8
R384	Z375	Z395	5	96.8
R385	Z376	Z396	5	96.8
R386	Z377	Z397	5	96.8
R387	Z379	Z398	5	96.8
R388	Z380	Z399	5	96.8
R389	Z365	Z401	5	141.0
R390	Z401	Z400	5.2	141.0
R391	Z400	Z402	148.3	141.0
R392	Z402	Z403	95	141.0
R393	Z403	Z404	337.6	141.0
R394	Z404	Z405	442	141.0
R395	Z405	Z406	61.5	141.0
R396	Z400	Z407	5	96.8
R397	Z402	Z408	5	96.8
R398	Z403	Z409	5	96.8
R399	Z404	Z410	5	96.8
R400	Z405	Z411	20.84	141.0
R401	Z401	Z412	19.3	141.0
R402	Z412	Z417	5	96.8
R403	Z412	Z416	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R404	Z412	Z413	94.8	141.0
R405	Z413	Z418	5	96.8
R406	Z413	Z420	5	96.8
R407	Z413	Z414	105.6	141.0
R408	Z414	Z419	5	96.8
R409	Z414	Z415	70.3	141.0
R410	Z219	Z421	138.2	141.0
R411	Z421	Z422	10.7	141.0
R412	Z422	Z423	160	141.0
R413	Z423	Z424	104.3	141.0
R414	Z423	Z425	5	96.8
R415	Z422	Z426	5	96.8
R416	Z421	Z427	5	96.8
R417	Z235	Z428	5	96.8
R418	Z234	Z429	5	96.8
R419	Z220	Z430	5	96.8
R420	Z229	Z437	5	96.8
R421	Z228	Z436	5	96.8
R422	Z226	Z435	5	96.8
R423	Z225	Z434	5	96.8
R424	Z224	Z433	5	96.8
R425	Z223	Z432	5	96.8
R426	Z222	Z431	5	96.8
R427	Z231	Z438	5	96.8
R428	Z232	Z439	5	96.8
G429	Z209	Z467	480.3	500
G430	Z467	Z466	238.5	500
G431	Z466	Z463	303.93	500
R429	Z463	Z462	15.40	312.8
R431	Z461	Z459	16.8	141
R433	Z457	Z455	13.8	141
R434	Z455	Z453	24.7	141
R435	Z453	Z451	38.3	141
R436	Z451	Z448	66.8	141
R437	Z448	Z446	328	197.4
R438	Z446	Z444	24	197.4
R439	Z444	Z442	11.9	197.4
R440	Z442	Z440	319.2	197.4
R441	Z440	Z209	64.8	197.4
R442	Z462	Z465	5	96.8
R443	Z462	Z464	5	96.8
R444	Z459	Z460	5	96.8
R445	Z440	Z441	5	96.8
R446	Z442	Z443	5	96.8
R447	Z444	Z445	5	96.8
R448	Z446	Z447	5	96.8
R449	Z448	Z450	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R450	Z448	Z449	5	96.8
R451	Z451	Z452	5	96.8
R452	Z453	Z454	5	96.8
R453	Z455	Z456	5	96.8
R454	Z457	Z458	5	96.8
R455	Z467	Z468	4.4	141.0
R456	Z468	Z469	33.2	141.0
R457	Z469	Z471	5	96.8
R458	Z469	Z470	214	141.0
R459	Z468	Z472	84.7	141.0
R460	Z472	Z474	64.9	141.0
R461	Z474	Z476	34.5	141.0
R462	Z472	Z473	5	96.8
R463	Z474	Z475	5	96.8
R464	Z205	Z481	2	141.0
R465	Z481	Z477	186	141.0
R466	Z477	Z479	322.7	141.0
R467	Z481	Z480	5	96.8
R468	Z477	Z478	5	96.8
R469	Z461	Z482	4.8	277.6
R470	Z482	Z483	38.1	277.6
R471	Z483	Z484	70.8	277.6
R472	Z484	Z485	58.5	277.6
R473	Z482	Z497	5	96.8
R474	Z483	Z498	5	96.8
R475	Z484	Z499	5	96.8
R476	Z485	Z500	5	96.8
R477	Z485	Z486	401.1	277.6
R478	Z486	Z487	194.6	221.2
R479	Z487	Z488	12.6	221.2
R480	Z486	Z501	5	96.8
R481	Z487	Z502	5	96.8
R482	Z488	Z490	391.7	197.4
R483	Z490	Z489	3.1	197.4
R484	Z489	Z493	9	141.0
R485	Z493	Z494	92.8	141.0
R486	Z494	Z495	28.8	141.0
R487	Z495	Z496	32.16	141.0
R488	Z489	Z491	152.9	141.0
R489	Z490	Z504	5	96.8
R490	Z491	Z503	5	96.8
R491	Z491	Z492	5.7	141.0
R492	Z495	Z505	5	96.8
R493	Z494	Z506	5	96.8
R494	Z493	Z507	5	96.8
R495	Z493	Z508	5	96.8
R496	Z176	Z561	105.5	221.2

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R497	Z561	Z562	5.4	141.0
R498	Z562	Z565	5.4	141.0
R499	Z565	Z564	99.3	141.0
R500	Z565	Z563	5	96.8
R501	Z575	Z566	5	96.8
R502	Z562	Z575	10.2	141.0
R503	Z575	Z567	119	141.0
R504	Z567	Z569	38.1	141.0
R505	Z567	Z568	5	96.8
R506	Z569	Z570	5	96.8
R507	Z569	Z518	223.4	141.0
R508	Z518	Z519	62.7	141.0
R509	Z518	Z571	5	96.8
R510	Z519	Z520	144.1	141.0
R511	Z519	Z521	236.5	141.0
R512	Z521	Z522	320.1	141.0
R513	Z522	Z523	11.7	141.0
R514	Z523	Z524	121	141.0
R515	Z523	Z574	5	96.8
R516	Z522	Z573	5	96.8
R517	Z521	Z572	5	96.8
R518	Z561	Z516	549.46	221.2
R519	Z516	Z515	239.7	221.2
R520	Z515	Z514	190.8	221.2
R521	Z516	Z560	5	96.8
R522	Z515	Z559	5	96.8
R523	Z514	Z554	7.1	141.0
R524	Z554	Z556	117.8	141.0
R525	Z556	Z558	55.2	141.0
R526	Z554	Z555	5	96.8
R527	Z556	Z557	5	96.8
R528	Z514	Z513	525.6	221.2
R529	Z466	Z525	5.6	221.2
R530	Z525	Z509	120.7	221.2
R531	Z509	Z510	36.1	221.2
R532	Z510	Z511	117.2	221.2
R533	Z511	Z512	29.4	221.2
R534	Z512	Z513	230.4	221.2
R535	Z512	Z530	5	96.8
R536	Z511	Z529	5	96.8
R537	Z510	Z528	5	96.8
R538	Z509	Z527	5	96.8
R539	Z525	Z526	5	96.8
R540	Z513	Z531	4.4	197.4
R541	Z531	Z532	200.5	141.0
R542	Z532	Z576	1.2	141.0
R543	Z576	Z535	28	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R544	Z532	Z533	5	96.8
R545	Z576	Z534	5	96.8
R546	Z531	Z536	8.8	197.4
R547	Z536	Z539	22.2	197.4
R548	Z539	Z540	106.8	197.4
R549	Z540	Z541	9.8	141.0
R550	Z541	Z543	31.7	141.0
R551	Z543	Z546	24.5	141.0
R552	Z536	Z537	5	96.8
R553	Z539	Z538	5	96.8
R554	Z541	Z542	5	96.8
R555	Z543	Z544	5	96.8
R556	Z546	Z545	5	96.8
R557	Z540	Z547	94.1	141
R558	Z547	Z549	252.2	141
R559	Z549	Z551	48.1	141
R560	Z551	Z552	45.1	141.0
R561	Z551	Z553	5	96.8
R562	Z549	Z550	5	96.8
R563	Z547	Z548	5	96.8
R564	Z175	Z40	647	500
G565	Z463	Z577	463.2	500
R565	Z577	Z578	13	141
R566	Z578	Z579	81.4	141
R567	Z579	Z580	104.3	141
R568	Z580	Z581	128	141
R569	Z580	Z588	92.4	141
R570	Z588	Z590	17	141.0
R571	Z590	Z592	45.3	141.0
R572	Z578	Z583	5.3	141
R573	Z583	Z585	14.5	141.0
R574	Z585	Z587	5	96.8
R575	Z585	Z586	5	96.8
R576	Z583	Z584	5	96.8
R577	Z590	Z591	5	96.8
R578	Z588	Z589	5	96.8
R579	Z579	Z582	21.6	141.0
G580	Z577	Z593	400	500
G581	Z593	Z595	355.4	500
R580	Z594	Z597	5	96.8
R581	Z596	Z598	5	96.8
R582	Z602	Z603	5	96.8
R583	Z605	Z606	5	96.8
R584	Z609	Z610	5	96.8
R585	Z611	Z612	5	96.8
R586	Z613	Z614	5	96.8
R587	Z615	Z616	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R588	Z615	Z617	5	96.8
R589	Z620	Z621	5	96.8
R590	Z622	Z623	5	96.8
R591	Z624	Z625	5	96.8
R592	Z626	Z628	5	96.8
R593	Z626	Z629	5	96.8
R594	Z631	Z632	5	96.8
R595	Z633	Z634	5	96.8
R596	Z593	Z594	5.4	277.6
R597	Z594	Z596	313.3	277.6
R598	Z596	Z599	49.3	277.6
R599	Z599	Z600	18.9	141.0
R600	Z599	Z601	504	277.6
R601	Z601	Z604	24.9	277.6
R602	Z604	Z605	21.3	141.0
R603	Z605	Z607	41.7	141.0
R604	Z601	Z602	5	277.6
R605	Z602	Z608	336.4	277.6
R606	Z608	Z609	50.5	197.4
R607	Z609	Z613	245	197.4
R608	Z613	Z615	80.4	197.4
R609	Z615	Z618	17.5	141.0
R610	Z608	Z611	101	277.6
R611	Z611	Z619	191.3	277.6
R612	Z619	Z622	37.8	197.4
R613	Z622	Z624	85.9	197.4
R614	Z624	Z626	11.4	141
R615	Z626	Z627	7.4	141.0
R616	Z619	Z620	4.4	197.4
R617	Z620	Z633	185.8	197.4
R618	Z633	Z631	35.8	141
R619	Z631	Z630	345.2	141
R620	Z604	Z517	116.7	277.6
R621	Z517	Z635	436.7	277.6
R622	Z635	Z636	497.7	277.6
R623	Z595	Z637	90.6	277.6
R624	Z637	Z636	301.5	277.6
R625	Z639	Z639	5	96.8
R627	Z517	Z640	5	96.8
R628	Z635	Z641	5.6	141
R629	Z641	Z642	5.6	141.0
R630	Z641	Z643	140.3	141
R631	Z643	Z645	5	96.8
R632	Z643	Z646	5	96.8
R633	Z643	Z644	12.3	141.0
R634	Z642	Z648	5	96.8
R635	Z642	Z647	182.6	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R636	Z637	Z649	6.1	141.0
R637	Z649	Z638	37	141.0
R638	Z636	Z650	125.1	141.0
R639	Z650	Z651	13.8	141.0
R640	Z651	Z655	167.2	141.0
R641	Z650	Z652	5	96.8
R642	Z651	Z653	5	96.8
R643	Z651	Z654	5	96.8
R644	Z595	Z656	440.3	500
R645	Z656	Z657	506.6	500
R646	Z657	Z658	191.7	500
R647	Z658	Z659	278.4	500
R648	Z659	Z660	355.9	500
R649	Z660	Z661	279	500
R650	Z661	Z662	669.8	500
R651	Z662	Z663	282.5	500
R652	Z664	Z663	606.5	500
R653	Z665	Z664	503.8	500
R654	Z40	Z665	241.2	500
R655	Z666	Z667	5	96.8
R656	Z666	Z668	5	96.8
R657	Z39	Z666	41	141.0
R658	Z674	Z676	5	96.8
R659	Z672	Z677	5	96.8
R660	Z669	Z679	5	96.8
R661	Z670	Z678	5	96.8
R662	Z673	Z680	5	96.8
R663	Z681	Z687	5	96.8
R664	Z682	Z688	5	96.8
R665	Z683	Z689	5	96.8
R666	Z684	Z690	5	96.8
R667	Z685	Z691	5	96.8
R668	Z665	Z669	43	141
R669	Z669	Z670	54.4	141
R670	Z670	Z671	212.7	141
R671	Z671	Z674	171.4	141.0
R672	Z674	Z675	43.7	141.0
R673	Z671	Z672	10.8	141.0
R674	Z672	Z673	189.3	141.0
R675	Z673	Z681	75.6	141.0
R676	Z681	Z682	55.7	141.0
R677	Z682	Z683	36.8	141.0
R678	Z683	Z684	13	141.0
R679	Z684	Z685	70.7	141.0
R680	Z685	Z686	130.9	141.0
R681	Z695	Z696	5	96.8
R682	Z693	Z694	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R683	Z664	Z692	4.6	141.0
R684	Z692	Z693	1.7	141.0
R685	Z693	Z695	85	141.0
R686	Z695	Z697	19.5	141.0
R687	Z692	Z698	3.9	141.0
R688	Z698	Z702	168.3	141.0
R689	Z702	Z700	40.2	141.0
R690	Z702	Z701	5	96.8
R691	Z698	Z699	5	96.8
R692	Z703	Z704	125.6	141.0
R693	Z704	Z705	233.7	141.0
R694	Z705	Z706	108.5	141.0
R695	Z706	Z709	123.5	141.0
R696	Z709	Z710	232.8	141.0
R697	Z709	Z707	43.5	141.0
R698	Z707	Z708	12.8	141.0
R699	Z703	Z711	5	96.8
R700	Z704	Z712	5	96.8
R701	Z705	Z713	5	96.8
R702	Z706	Z714	5	96.8
R703	Z707	Z715	5	96.8
R704	Z663	Z703	9	141.0
R705	Z662	Z716	82.3	141
R706	Z716	Z717	318.1	141
R707	Z717	Z718	192.7	141.0
R708	Z718	Z719	68.9	141.0
R709	Z717	Z720	94.5	141
R710	Z720	Z721	13.7	141
R711	Z721	Z722	40.2	141.0
R712	Z722	Z723	84.7	141.0
R713	Z722	Z724	5	96.8
R714	Z721	Z725	5	96.8
R715	Z720	Z726	5	96.8
R716	Z718	Z727	5	96.8
R626	Z657	Z728	2.7	197.4
R717	Z728	Z729	23.9	141.0
R718	Z730	Z729	5	96.8
R719	Z729	Z731	235	141.0
R720	Z728	Z732	187.7	197.4
R721	Z732	Z734	65.9	197.4
R722	Z734	Z736	200.9	197.4
R723	Z736	Z738	161	197.4
R724	Z738	Z740	160.5	141
R725	Z740	Z742	13.1	141
R726	Z742	Z743	45.4	141
R727	Z743	Z744	9.4	141
R728	Z744	Z747	466	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R729	Z744	Z746	5	96.8
R730	Z743	Z745	5	96.8
R731	Z740	Z741	5	96.8
R732	Z738	Z739	5	96.8
R733	Z736	Z737	5	96.8
R734	Z734	Z735	5	96.8
R735	Z732	Z733	5	96.8
R736	Z656	Z748	8.5	197.4
R737	Z748	Z749	6.8	141
R738	Z749	Z750	20.2	141
R739	Z750	Z752	85.5	141
R740	Z752	Z753	4.3	141
R741	Z753	Z754	9	141.0
R742	Z753	Z756	148.8	141.0
R743	Z754	Z755	78.04	141.0
R744	Z750	Z751	41.2	141
R745	Z751	Z761	110.6	141
R746	Z761	Z762	20.5	141.0
R747	Z762	Z763	14.1	141.0
R748	Z763	Z764	48.89	141.0
R749	Z763	Z765	5	96.8
R750	Z762	Z766	5	96.8
R751	Z761	Z767	5	96.8
R752	Z751	Z760	5	96.8
R753	Z749	Z759	5	96.8
R754	Z752	Z758	5	96.8
R755	Z754	Z757	5	96.8
R756	Z774	Z776	5	96.8
R757	Z771	Z777	5	96.8
R758	Z770	Z778	5	96.8
R759	Z769	Z779	5	96.8
R760	Z768	Z780	5	96.8
R761	Z748	Z768	510.8	197.4
R762	Z768	Z769	18.4	197.4
R763	Z769	Z770	96.3	197.4
R764	Z770	Z771	10.4	141
R765	Z771	Z772	139.1	141
R766	Z772	Z774	61.3	141.0
R767	Z774	Z775	9.1	141.0
R768	Z772	Z773	202.6	141.0
R769	Z659	Z781	48.6	277.6
R770	Z781	Z785	78.2	277.6
R771	Z785	Z782	128.1	277.6
R772	Z782	Z783	269.1	277.6
R773	Z783	Z784	64.2	277.6
R774	Z784	Z786	247.3	277.6
R775	Z786	Z787	47.2	277.6

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R776	Z787	Z788	53.7	277.6
R777	Z788	Z789	9.9	277.6
R778	Z789	Z790	29	277.6
R779	Z790	Z791	207.9	221.2
R780	Z791	Z792	90.2	221.2
R781	Z792	Z793	193.2	221.2
R782	Z793	Z794	83.3	221.2
R783	Z794	Z795	10.7	221.2
R798	Z809	Z795	224.05	277.6
R785	Z781	Z808	5	96.8
R786	Z782	Z807	5	96.8
R787	Z783	Z806	5	96.8
R788	Z784	Z805	5	96.8
R789	Z786	Z804	5	96.8
R790	Z787	Z803	5	96.8
R791	Z788	Z802	5	96.8
R792	Z789	Z801	5	96.8
R793	Z791	Z800	5	96.8
R794	Z792	Z799	5	96.8
R795	Z793	Z798	5	96.8
R796	Z794	Z797	5	96.8
R797	Z809	Z796	20.86	96.8
R799	Z661	Z809	10.74	277.6
R800	Z790	Z810	5.7	197.4
R801	Z810	Z811	112.1	197.4
R802	Z811	Z812	88.7	197.4
R803	Z812	Z813	88.5	141
R804	Z813	Z814	89.2	141
R805	Z814	Z815	87.3	141.0
R806	Z815	Z816	118.8	141.0
R807	Z816	Z817	76.1	141.0
R808	Z816	Z818	116.9	141.0
R809	Z810	Z819	5	96.8
R810	Z811	Z820	5	96.8
R811	Z812	Z821	5	96.8
R812	Z813	Z822	5	96.8
R813	Z814	Z823	5	96.8
R814	Z815	Z824	5	96.8
R784	Z825	Z838	5	96.8
R815	Z826	Z839	5	96.8
R816	Z827	Z840	5	96.8
R817	Z828	Z841	5	96.8
R818	Z829	Z842	5	96.8
R819	Z831	Z843	5	96.8
R820	Z831	Z844	5	96.8
R821	Z833	Z845	5	96.8
R822	Z834	Z847	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R823	Z835	Z848	5	96.8
R824	Z836	Z849	5	96.8
R825	Z785	Z825	122.1	277.6
R826	Z825	Z826	233.5	277.6
R827	Z826	Z827	33	277.6
R828	Z827	Z828	65.4	221.2
R829	Z828	Z829	138.6	221.2
R830	Z829	Z830	163.2	221.2
R831	Z830	Z831	8.3	141.0
R832	Z830	Z832	322.9	197.4
R833	Z832	Z846	106.9	141.0
R834	Z832	Z833	1.3	197.4
R835	Z833	Z834	83.9	197.4
R836	Z834	Z835	150.6	141
R837	Z835	Z836	34.9	141.0
R838	Z836	Z837	60.7	141.0
R839	Z795	Z850	189	221.2
R840	Z850	Z851	8.9	221.2
R841	Z851	Z852	143.3	221.2
R842	Z852	Z853	44.2	221.2
R843	Z853	Z854	171.3	221.2
R844	Z854	Z855	103.3	197.4
R845	Z855	Z856	64	141
R846	Z856	Z857	61.3	141
R847	Z857	Z858	80.2	141
R848	Z858	Z859	56.2	141
R849	Z859	Z871	121	141.0
R850	Z854	Z860	316	141
R851	Z860	Z861	122.9	141
R852	Z861	Z874	201	141.0
R853	Z850	Z862	5	96.8
R854	Z851	Z863	5	96.8
R855	Z852	Z864	5	96.8
R856	Z853	Z865	5	96.8
R857	Z855	Z866	5	96.8
R858	Z856	Z867	5	96.8
R859	Z857	Z868	5	96.8
R860	Z858	Z869	5	96.8
R861	Z859	Z870	5	96.8
R862	Z860	Z872	5	96.8
R863	Z861	Z873	5	96.8
R864	Z3	Z875	803.3	400
R865	Z875	Z882	7.5	141.0
R866	Z882	Z883	18.5	141.0
R867	Z883	Z884	155.6	141.0
R868	Z884	Z885	156.9	141.0
R869	Z885	Z886	71.4	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R870	Z886	Z887	367.4	141.0
R871	Z886	Z961	5	96.8
R872	Z885	Z962	5	96.8
R873	Z885	Z963	5	96.8
R874	Z884	Z964	5	96.8
R875	Z884	Z965	5	96.8
R876	Z883	Z966	5	96.8
R877	Z882	Z967	5	96.8
R878	Z875	Z876	383.9	400
R879	Z876	Z888	477.2	400
R880	Z888	Z897	507.9	400
R881	Z876	Z877	20	197.4
R882	Z877	Z878	32.5	141.0
R883	Z878	Z879	183.4	141.0
R884	Z879	Z880	278.4	141.0
R885	Z880	Z881	212.9	141.0
R886	Z878	Z970	5	96.8
R887	Z879	Z969	5	96.8
R888	Z880	Z968	5	96.8
R889	Z877	Z895	533.7	197.4
R890	Z895	Z896	151	197.4
R891	Z896	Z894	27.1	197.4
R896	Z888	Z971	8.8	197.4
R897	Z889	Z890	148	197.4
R898	Z890	Z891	213	197.4
R899	Z891	Z892	201.5	197.4
R900	Z892	Z893	192.7	197.4
R901	Z893	Z894	27.1	197.4
R902	Z971	Z889	251.5	197.4
R903	Z897	Z899	550.3	400
R904	Z1248	Z960	264.3	312.8
R905	Z960	Z935	1161.6	312.8
R906	Z935	Z933	206.7	400
R907	Z933	Z899	373.5	400
R908	Z899	Z900	26.4	141.0
R909	Z900	Z901	140	141.0
R910	Z900	Z972	5	96.8
R911	Z900	Z973	5	96.8
R912	Z897	Z898	3.9	312.8
R913	Z898	Z902	1143.2	312.8
R914	Z898	Z974	5	96.8
R915	Z902	Z903	33	312.8
R916	Z903	Z904	90.3	312.8
R917	Z904	Z905	13.5	312.8
R918	Z905	Z906	15.7	312.8
R919	Z906	Z907	146.3	312.8
R920	Z907	Z908	109.5	312.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R921	Z908	Z909	204	312.8
R922	Z909	Z910	100.9	312.8
R923	Z909	Z981	5	96.8
R924	Z908	Z980	5	96.8
R925	Z907	Z979	5	96.8
R926	Z906	Z978	5	96.8
R927	Z905	Z977	5	96.8
R928	Z904	Z976	5	96.8
R929	Z903	Z975	5	96.8
R930	Z933	Z934	12.9	312.8
R931	Z934	Z932	294.6	312.8
R932	Z932	Z931	209.5	312.8
R933	Z931	Z930	37.3	312.8
R934	Z930	Z929	363.5	312.8
R935	Z929	Z928	69	312.8
R936	Z928	Z927	99.8	312.8
R937	Z927	Z926	192.8	312.8
R938	Z926	Z925	150.8	312.8
R939	Z925	Z924	33.5	312.8
R940	Z924	Z923	101.4	312.8
R941	Z923	Z922	150.2	312.8
R942	Z922	Z921	46.9	312.8
R943	Z921	Z920	36.5	312.8
R944	Z920	Z919	210.77	312.8
R945	Z919	Z918	114.5	312.8
R946	Z918	Z917	69.4	312.8
R947	Z917	Z916	105.3	312.8
R948	Z916	Z915	91.6	312.8
R949	Z915	Z914	143.4	312.8
R950	Z914	Z913	145.1	312.8
R951	Z913	Z912	191.7	312.8
R952	Z912	Z911	249.3	312.8
R953	Z911	Z910	143.2	312.8
R954	Z934	Z982	5	96.8
R955	Z932	Z983	5	96.8
R956	Z931	Z984	5	96.8
R957	Z930	Z985	20.46	96.8
R958	Z929	Z986	5	96.8
R959	Z928	Z987	5	96.8
R960	Z927	Z988	5	96.8
R961	Z926	Z989	5	96.8
R962	Z924	Z990	5	96.8
R963	Z923	Z991	5	96.8
R964	Z922	Z992	5	96.8
R965	Z921	Z993	5	96.8
R966	Z920	Z994	5	96.8
R967	Z918	Z995	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R968	Z917	Z996	5	96.8
R969	Z916	Z997	5	96.8
R970	Z915	Z998	5	96.8
R971	Z914	Z999	5	96.8
R972	Z913	Z1000	5	96.8
R973	Z912	Z1001	5	96.8
R974	Z911	Z1002	5	96.8
R975	Z971	Z1011	5	96.8
R976	Z889	Z1010	5	96.8
R977	Z890	Z1009	5	96.8
R978	Z891	Z1008	5	96.8
R979	Z891	Z1007	5	96.8
R980	Z892	Z1006	5	96.8
R981	Z893	Z1005	5	96.8
R982	Z896	Z1004	5	96.8
R983	Z895	Z1003	5	96.8
R984	Z894	Z1012	405.2	197.4
R985	Z1012	Z1013	210.7	141
R986	Z1013	Z1014	79.4	141
R987	Z1014	Z1015	257.4	141
R988	Z1015	Z1016	47.92	141
R989	Z1016	Z1017	169.6	141
R990	Z1017	Z1018	98.3	141.0
R991	Z1018	Z1019	144.7	141.0
R992	Z1019	Z1020	226.2	141.0
R993	Z1017	Z1021	29.9	141.0
R994	Z1021	Z1022	331.5	141.0
R995	Z1012	Z1023	5	96.8
R996	Z1012	Z1024	30.48	96.8
R997	Z1013	Z1025	5	96.8
R998	Z1014	Z1026	5	96.8
R999	Z1015	Z1027	5	96.8
R1000	Z1016	Z1028	5	96.8
R1001	Z1018	Z1029	5	96.8
R1002	Z1019	Z1030	5	96.8
R1003	Z1021	Z1031	5	96.8
R892	Z902	Z1038	8.6	141
R893	Z1038	Z1037	31.8	141
R894	Z1037	Z1036	110	141
R895	Z1036	Z1035	56	141
R1004	Z1035	Z1034	301.8	141
R1005	Z1034	Z1033	178.1	141.0
R1006	Z1033	Z1032	25.8	141.0
R1007	Z1033	Z1039	5	96.8
R1008	Z1034	Z1040	5	96.8
R1009	Z1035	Z1041	5	96.8
R1010	Z1036	Z1042	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1011	Z1037	Z1043	5	96.8
R1012	Z1038	Z1044	5	96.8
R1013	Z1038	Z1045	5	96.8
R1014	Z910	Z1046	15.4	141
R1015	Z1046	Z1047	32.2	141
R1016	Z1047	Z1048	50.4	141
R1017	Z1048	Z1049	32	141
R1018	Z1049	Z1050	74.2	141
R1019	Z1050	Z1051	21.5	141
R1020	Z1051	Z1052	390.4	141
R1021	Z1052	Z1053	76.9	141.0
R1022	Z1053	Z1054	44.6	141.0
R1023	Z1054	Z1055	103.2	141.0
R1024	Z1046	Z1064	5	96.8
R1025	Z1047	Z1063	5	96.8
R1026	Z1048	Z1062	5	96.8
R1027	Z1049	Z1061	5	96.8
R1028	Z1050	Z1060	5	96.8
R1029	Z1051	Z1059	5	96.8
R1030	Z1052	Z1058	5	96.8
R1031	Z1053	Z1057	5	96.8
R1032	Z1054	Z1056	5	96.8
R1033	Z1065	Z1075	5	96.8
R1034	Z1066	Z1074	5	96.8
R1035	Z1067	Z1073	5	96.8
R1036	Z1068	Z1072	5	96.8
R1037	Z1069	Z1071	5	96.8
R1038	Z919	Z1065	17.3	141
R1039	Z1065	Z1066	231.1	141
R1040	Z1066	Z1067	215.1	141
R1041	Z1067	Z1068	21.9	141
R1042	Z1068	Z1069	56.7	141.0
R1043	Z1069	Z1070	11.7	141.0
R1044	Z1076	Z1082	5	96.8
R1045	Z1076	Z1083	5	96.8
R1046	Z1077	Z1084	5	96.8
R1047	Z1078	Z1085	5	96.8
R1048	Z1079	Z1086	5	96.8
R1049	Z1080	Z1087	5	96.8
R1050	Z925	Z1076	13.15	141
R1051	Z1076	Z1077	381.1	141
R1052	Z1077	Z1078	146.5	141
R1053	Z1078	Z1079	111	141
R1054	Z1079	Z1080	368.5	141
R1055	Z1080	Z1081	158.1	141.0
R1056	Z936	Z1088	12.2	141.0
R1057	Z1088	Z1089	58.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1058	Z1089	Z1090	77.3	141.0
R1059	Z1090	Z1091	99.5	141.0
R1060	Z1091	Z1094	28.5	141.0
R1061	Z1094	Z1092	40.2	141.0
R1062	Z1092	Z1093	79.4	141.0
R1063	Z1094	Z1095	11.4	141.0
R1064	Z1095	Z1096	145.5	141.0
R1065	Z1095	Z1102	11.82	96.8
R1066	Z1092	Z1101	5	96.8
R1067	Z1091	Z1100	5	96.8
R1068	Z1090	Z1099	5	96.8
R1069	Z1089	Z1098	5	96.8
R1070	Z1088	Z1097	5	96.8
R1071	Z935	Z936	2.7	312.8
R1072	Z936	Z937	12	312.8
R1073	Z937	Z938	688.3	312.8
R1074	Z938	Z1108	530.5	221.2
R1075	Z938	Z939	10.60	141
R1076	Z939	Z1246	136.2	141
R1077	Z939	Z1103	5	96.8
R1079	Z942	Z943	150.6	141
R1080	Z943	Z944	381.9	141
R1082	Z945	Z946	141.3	141
R1083	Z946	Z947	90.4	141
R1084	Z947	Z948	188.8	141
R1085	Z948	Z949	293.7	141
R1086	Z949	Z950	28.6	141
R1088	Z951	Z952	52	197.4
R1089	Z952	Z953	23.4	197.4
R1090	Z953	Z954	174.2	197.4
R1091	Z954	Z955	16.5	197.4
R1092	Z955	Z956	37.2	197.4
R1093	Z956	Z957	114	197.4
R1095	Z1104	Z1105	268.6	141.0
R1096	Z1104	Z1107	5	96.8
R1097	Z1104	Z1106	5	96.8
R1099	Z1108	Z1111	76	141
R1100	Z1111	Z1109	16.7	141
R1101	Z1109	Z1110	69.3	141.0
R1102	Z1109	Z1112	94	141
R1103	Z1112	Z1113	121.5	141
R1104	Z1113	Z1114	12.3	141.0
R1105	Z1111	Z1117	5	96.8
R1106	Z1110	Z1118	5	96.8
R1107	Z1112	Z1116	5	96.8
R1108	Z1112	Z1119	5	96.8
R1109	Z1113	Z1115	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1110	Z942	Z1120	5	96.8
R1111	Z942	Z1121	5	96.8
R1112	Z943	Z1122	5	96.8
R1113	Z943	Z1123	5	96.8
R1114	Z944	Z1124	5	96.8
R1115	Z944	Z1125	5	96.8
R1116	Z945	Z1126	5	96.8
R1117	Z945	Z1127	5	96.8
R1118	Z946	Z1128	5	96.8
R1119	Z947	Z1129	5	96.8
R1120	Z948	Z1130	5	96.8
R1121	Z1130	Z1132	5	96.8
R1122	Z1130	Z1131	5	96.8
R1123	Z949	Z1133	5	96.8
R1124	Z950	Z1134	5	96.8
R1125	Z951	Z1135	5	96.8
R1126	Z952	Z1136	5	96.8
R1127	Z953	Z1137	5	96.8
R1128	Z956	Z1141	5	96.8
R1129	Z955	Z1140	5	96.8
R1130	Z954	Z1138	5	96.8
R1131	Z954	Z1139	5	96.8
R1132	Z1108	Z1142	122	197.4
R1133	Z1142	Z1143	197.4	197.4
R1134	Z1143	Z1144	197.4	141
R1135	Z1144	Z1145	4.8	141
R1136	Z1145	Z1146	64.4	141
R1137	Z1146	Z1147	21.4	141.0
R1138	Z1147	Z1148	77.3	141.0
R1139	Z1142	Z1153	5	96.8
R1140	Z1143	Z1152	5	96.8
R1141	Z1145	Z1151	5	96.8
R1142	Z1146	Z1150	5	96.8
R1143	Z1147	Z1149	5	96.8
R1144	Z1144	Z1154	494	141
R1145	Z1154	Z1155	7.5	141
R1146	Z1155	Z1156	114.7	141.0
R1147	Z1155	Z1158	5	96.8
R1148	Z1154	Z1157	5	96.8
R1149	Z957	Z958	288	197.4
R1150	Z959	Z958	122.3	197.4
R1151	Z293	Z959	453	197.4
R1152	Z959	Z1159	5	96.8
R1153	Z1163	Z1170	5	96.8
R1154	Z1163	Z1171	5	96.8
R1155	Z1162	Z1168	5	96.8
R1156	Z1162	Z1169	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1157	Z1161	Z1167	5	96.8
R1158	Z1160	Z1164	5	96.8
R1159	Z958	Z1166	5	96.8
R1162	Z1244	Z1161	6.6	141.0
R1163	Z1161	Z1243	88.2	141.0
R1164	Z1162	Z1163	347.6	141.0
R1165	Z1172	Z1174	5	96.8
R1166	Z960	Z1175	3.8	221.2
R1167	Z1175	Z1172	48.5	141.0
R1168	Z1172	Z1173	181.7	141.0
R1169	Z1175	Z1176	9.2	221.2
R1170	Z1176	Z1177	17	141.0
R1171	Z1177	Z1178	11.4	141.0
R1172	Z1178	Z1179	155	141.0
R1173	Z1179	Z1180	108.8	141.0
R1174	Z1180	Z1181	24.6	141.0
R1175	Z1180	Z1185	5	96.8
R1176	Z1179	Z1184	5	96.8
R1177	Z1178	Z1183	5	96.8
R1178	Z1177	Z1182	5	96.8
R1179	Z1176	Z1186	193.3	221.2
R1180	Z1186	Z1187	47.2	141.0
R1181	Z1187	Z1188	12.6	141.0
R1182	Z1188	Z1189	85.2	141.0
R1183	Z1189	Z1190	12.1	141.0
R1184	Z1190	Z1191	108.7	141.0
R1185	Z1190	Z1192	5	96.8
R1186	Z1189	Z1193	5	96.8
R1187	Z1188	Z1194	5	96.8
R1188	Z1187	Z1195	5	96.8
R1189	Z1186	Z1196	22.1	197.4
R1190	Z1196	Z1197	11.9	197.4
R1191	Z1197	Z1198	70.1	197.4
R1192	Z1198	Z1199	40.4	141.0
R1193	Z1199	Z1200	31.7	141.0
R1194	Z1200	Z1201	28.9	141.0
R1195	Z1198	Z1202	8.6	141.0
R1196	Z1202	Z1203	149.5	141.0
R1197	Z1203	Z1204	36.3	141.0
R1198	Z1204	Z1205	34	141.0
R1199	Z1196	Z1206	5	96.8
R1200	Z1197	Z1207	5	96.8
R1201	Z1202	Z1208	5	96.8
R1202	Z1199	Z1209	5	96.8
R1203	Z1200	Z1210	5	96.8
R1204	Z1203	Z1212	5	96.8
R1205	Z1204	Z1211	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1206	Z1036	Z1213	5	96.8
R1207	Z937	Z1214	21.07	96.8
R1208	Z116	Z1215	5	96.8
R1209	Z116	Z1216	5	96.8
R1210	Z52	Z1217	5	96.8
R1211	Z32	Z1218	5	96.8
R1212	Z33	Z1219	5	96.8
R1213	Z34	Z1220	5	96.8
R1214	Z35	Z1221	5	96.8
R1215	Z36	Z1222	5	96.8
R1216	Z37	Z1223	5	96.8
R1217	Z38	Z1224	5	96.8
R1218	Z660	Z1225	6.8	141.0
R1219	Z1225	Z1226	3.2	141.0
R1220	Z1226	Z1228	10.3	141.0
R1221	Z1226	Z1229	5	96.8
R1222	Z1225	Z1227	36.5	141.0
R1223	Z1227	Z1230	5	96.8
R1224	Z1227	Z1231	5	96.8
R1225	Z658	Z1232	2.7	141.0
R1226	Z1232	Z1234	7.4	141.0
R1227	Z1234	Z1236	10	141.0
R1228	Z1236	Z1235	31.2	141.0
R1229	Z1232	Z1233	10.3	141.0
R1230	Z1234	Z1238	5	96.8
R1231	Z1236	Z1237	5	96.8
R1	Z384	Z1239	5	96.8
R2	Z384	Z1240	5	96.8
R1232	Z383	Z1241	5	96.8
R1233	Z382	Z1242	5	96.8
R430	Z462	Z461	276.2	312.8
R1234	Z1243	Z1162	14.2	141.0
R1235	Z1243	Z1104	275.3	141.0
R1236	Z1245	Z1244	357.4	141
R1237	Z1245	Z292	5	98.6
R1238	Z1244	Z1160	164.3	141.0
R3187	Z951	Z950	400.7	197.4
R1239	Z1246	Z940	5	96.8
R1240	Z1246	Z1247	543	141
R1241	Z1247	Z942	5.5	141
R1078	Z3	Z1248	13465	600
R1081	Z1248	Z293	68.4	400
P1	S1	Z1	#N/A	#N/A Pump
P2	S1	Z1	#N/A	#N/A Pump
P3	S1	Z1	#N/A	#N/A Pump
P4	S1	Z1	#N/A	#N/A Pump
P5	S1	Z1	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm		
P6	S1	Z1	#N/A	#N/A Pump		
P7	S1	Z1	#N/A	#N/A Pump		
Energy Usage:						
Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.92	156.92	0.00
P3	100.00	75.00	0.29	156.92	156.92	0.00
P4	100.00	75.00	0.29	156.92	156.92	0.00
P5	100.00	75.00	0.29	156.92	156.92	0.00
P6	100.00	75.00	0.29	156.92	156.92	0.00
P7	100.00	75.00	0.29	156.92	156.92	0.00
Demand Charge:					0.00	0.00
Total Cost:					0.00	0.00
Node Results:						
Node ID	Demand LPS	Head m	Pressure m	Quality		
Z1	0.00	89.91	79.91	0.00		
Z2	0.00	89.53	79.53	0.00		
Z3	0.00	84.83	74.83	0.00		
Z4	0.00	89.24	79.24	0.00		
Z5	0.00	88.24	78.24	0.00		
Z6	0.00	88.16	78.16	0.00		
Z7	0.00	87.93	77.93	0.00		
Z8	0.00	87.78	77.78	0.00		
Z9	0.00	87.74	77.74	0.00		
Z10	0.00	87.40	77.40	0.00		
Z11	0.00	87.29	77.29	0.00		
Z12	0.00	86.81	76.81	0.00		
Z13	0.00	86.48	76.48	0.00		
Z14	0.00	86.32	76.32	0.00		
Z15	0.00	85.92	75.92	0.00		
Z16	0.00	85.71	75.71	0.00		
Z17	0.00	85.57	75.57	0.00		
Z18	0.00	85.38	75.38	0.00		
Z19	0.00	85.28	75.28	0.00		
Z20	0.00	84.87	74.87	0.00		
Z21	0.00	84.74	74.74	0.00		
Z22	0.00	84.51	74.51	0.00		
Z23	0.00	84.17	74.17	0.00		

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z24	0.00	84.04	74.04	0.00
Z25	0.00	83.80	73.80	0.00
Z26	0.00	83.12	73.12	0.00
Z27	0.00	83.10	73.10	0.00
Z28	0.00	82.12	72.12	0.00
Z29	0.00	85.46	75.46	0.00
Z56	1.44	89.23	79.23	0.00
Z57	1.44	88.24	78.24	0.00
Z58	1.44	88.15	78.15	0.00
Z59	1.44	87.93	77.93	0.00
Z60	1.44	87.78	77.78	0.00
Z61	1.44	87.74	77.74	0.00
Z62	1.44	87.40	77.40	0.00
Z63	1.44	87.28	77.28	0.00
Z64	1.44	86.81	76.81	0.00
Z65	1.44	86.48	76.48	0.00
Z66	1.44	86.32	76.32	0.00
Z67	1.44	85.91	75.91	0.00
Z68	1.44	85.71	75.71	0.00
Z69	1.44	85.56	75.56	0.00
Z70	1.44	85.38	75.38	0.00
Z71	1.44	85.28	75.28	0.00
Z72	1.44	85.02	75.02	0.00
Z73	1.44	84.86	74.86	0.00
Z74	1.44	84.74	74.74	0.00
Z75	1.44	84.51	74.51	0.00
Z76	1.44	84.17	74.17	0.00
Z77	1.44	84.04	74.04	0.00
Z78	1.44	83.80	73.80	0.00
Z79	1.44	83.12	73.12	0.00
Z80	1.44	83.09	73.09	0.00
Z81	1.44	82.11	72.11	0.00
Z82	0.00	84.91	74.91	0.00
Z83	0.00	84.34	74.34	0.00
Z84	0.00	84.23	74.23	0.00
Z85	0.00	83.98	73.98	0.00
Z86	0.00	83.80	73.80	0.00
Z87	0.00	83.77	73.77	0.00
Z88	0.00	83.70	73.70	0.00
Z89	0.00	83.68	73.68	0.00
Z90	1.44	83.68	73.68	0.00
Z91	1.44	84.91	74.91	0.00
Z92	1.44	84.33	74.33	0.00
Z93	1.44	84.23	74.23	0.00
Z94	1.44	83.97	73.97	0.00
Z95	1.44	83.80	73.80	0.00
Z96	1.44	83.77	73.77	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z97	1.44	83.70	73.70	0.00
Z98	1.44	83.68	73.68	0.00
Z99	0.00	84.75	74.75	0.00
Z100	0.00	83.63	73.63	0.00
Z101	0.00	83.20	73.20	0.00
Z102	0.00	81.96	71.96	0.00
Z103	0.00	81.80	71.80	0.00
Z104	0.00	81.65	71.65	0.00
Z105	0.00	81.61	71.61	0.00
Z106	0.00	81.53	71.53	0.00
Z107	0.00	81.52	71.52	0.00
Z108	1.44	81.53	71.53	0.00
Z109	1.44	81.60	71.60	0.00
Z110	1.44	81.65	71.65	0.00
Z111	1.44	81.80	71.80	0.00
Z112	1.44	81.96	71.96	0.00
Z113	1.44	83.19	73.19	0.00
Z114	1.44	83.62	73.62	0.00
Z115	1.44	84.75	74.75	0.00
Z116	0.00	81.95	71.95	0.00
Z117	0.00	81.17	71.17	0.00
Z118	0.00	80.81	70.81	0.00
Z119	0.00	80.52	70.52	0.00
Z120	0.00	79.92	69.92	0.00
Z121	0.00	79.63	69.63	0.00
Z122	0.00	81.14	71.14	0.00
Z123	0.00	81.09	71.09	0.00
Z124	0.00	81.07	71.07	0.00
Z125	1.44	81.14	71.14	0.00
Z126	1.44	81.09	71.09	0.00
Z127	1.44	81.52	71.52	0.00
Z128	1.44	81.07	71.07	0.00
Z129	0.00	81.07	71.07	0.00
Z130	1.44	81.07	71.07	0.00
Z30	0.00	78.66	68.66	0.00
Z31	0.00	78.57	68.57	0.00
Z32	0.00	78.55	68.55	0.00
Z33	0.00	78.11	68.11	0.00
Z34	0.00	77.77	67.77	0.00
Z35	0.00	77.47	67.47	0.00
Z36	0.00	77.43	67.43	0.00
Z37	0.00	77.37	67.37	0.00
Z38	0.00	77.36	67.36	0.00
Z39	0.00	77.21	67.21	0.00
Z40	0.00	77.17	67.17	0.00
Z42	1.44	78.66	68.66	0.00
Z43	0.00	78.56	68.56	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z44	1.44	78.55	68.55	0.00
Z45	0.00	78.48	68.48	0.00
Z46	1.44	78.48	68.48	0.00
Z48	1.44	78.46	68.46	0.00
Z49	1.44	80.81	70.81	0.00
Z50	1.44	80.52	70.52	0.00
Z51	1.44	79.92	69.92	0.00
Z52	0.00	79.61	69.61	0.00
Z53	0.00	79.60	69.60	0.00
Z54	1.44	79.58	69.58	0.00
Z55	1.44	79.59	69.59	0.00
Z131	1.44	79.59	69.59	0.00
Z132	0.00	83.51	73.51	0.00
Z133	0.00	83.43	73.43	0.00
Z134	0.00	83.40	73.40	0.00
Z135	0.00	83.35	73.35	0.00
Z136	0.00	83.32	73.32	0.00
Z137	1.44	83.32	73.32	0.00
Z138	0.00	83.28	73.28	0.00
Z139	0.00	83.19	73.19	0.00
Z140	0.00	83.14	73.14	0.00
Z141	0.00	83.14	73.14	0.00
Z142	1.44	83.13	73.13	0.00
Z143	0.00	82.13	72.13	0.00
Z144	1.44	79.63	69.63	0.00
Z145	0.00	79.64	69.64	0.00
Z146	0.00	79.63	69.63	0.00
Z147	0.00	79.77	69.77	0.00
Z148	0.00	79.62	69.62	0.00
Z149	0.00	79.18	69.18	0.00
Z150	0.00	78.96	68.96	0.00
Z151	0.00	78.86	68.86	0.00
Z152	0.00	78.85	68.85	0.00
Z153	0.00	78.81	68.81	0.00
Z154	0.00	78.74	68.74	0.00
Z155	0.00	78.72	68.72	0.00
Z156	1.44	78.72	68.72	0.00
Z157	1.44	83.14	73.14	0.00
Z158	1.44	83.14	73.14	0.00
Z159	1.44	83.18	73.18	0.00
Z160	1.44	83.28	73.28	0.00
Z161	1.44	83.40	73.40	0.00
Z162	1.44	83.35	73.35	0.00
Z163	1.44	83.32	73.32	0.00
Z164	0.00	80.81	70.81	0.00
Z165	0.00	73.89	63.89	0.00
Z166	1.44	79.63	69.63	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z167	1.44	79.61	69.61	0.00
Z168	1.44	79.18	69.18	0.00
Z169	1.44	78.96	68.96	0.00
Z170	1.44	78.84	68.84	0.00
Z171	1.44	78.80	68.80	0.00
Z172	1.44	78.80	68.80	0.00
Z173	1.44	78.74	68.74	0.00
Z174	1.44	78.72	68.72	0.00
Z175	0.00	77.59	67.59	0.00
Z176	0.00	76.40	66.40	0.00
Z177	0.00	75.80	65.80	0.00
Z178	0.00	75.74	65.74	0.00
Z179	0.00	75.44	65.44	0.00
Z180	0.00	75.36	65.36	0.00
Z181	0.00	75.29	65.29	0.00
Z182	0.00	75.28	65.28	0.00
Z183	0.00	75.20	65.20	0.00
Z184	0.00	75.19	65.19	0.00
Z185	0.00	75.16	65.16	0.00
Z186	1.44	75.15	65.15	0.00
Z187	0.00	74.70	64.70	0.00
Z188	0.00	74.55	64.55	0.00
Z189	0.00	74.54	64.54	0.00
Z190	1.44	74.54	64.54	0.00
Z191	0.00	74.53	64.53	0.00
Z192	0.00	74.50	64.50	0.00
Z193	1.44	74.50	64.50	0.00
Z194	1.44	75.73	65.73	0.00
Z195	1.44	75.44	65.44	0.00
Z196	1.44	75.35	65.35	0.00
Z197	1.44	75.29	65.29	0.00
Z198	1.44	75.27	65.27	0.00
Z199	1.44	75.19	65.19	0.00
Z200	1.44	75.16	65.16	0.00
Z201	1.44	74.69	64.69	0.00
Z202	1.44	74.54	64.54	0.00
Z203	1.44	74.53	64.53	0.00
Z204	1.44	74.50	64.50	0.00
Z205	0.00	75.04	65.04	0.00
Z206	0.00	74.24	64.24	0.00
Z207	0.00	74.08	64.08	0.00
Z208	0.00	73.68	63.68	0.00
Z209	0.00	73.64	63.64	0.00
Z210	0.00	74.06	64.06	0.00
Z211	0.00	74.05	64.05	0.00
Z212	0.00	74.03	64.03	0.00
Z213	1.44	74.03	64.03	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z214	0.00	74.06	64.06	0.00
Z215	1.44	74.05	64.05	0.00
Z216	1.44	74.03	64.03	0.00
Z217	1.44	74.04	64.04	0.00
Z218	1.44	74.04	64.04	0.00
Z219	0.00	73.59	63.59	0.00
Z220	0.00	73.49	63.49	0.00
Z221	0.00	73.45	63.45	0.00
Z222	0.00	73.44	63.44	0.00
Z223	0.00	73.35	63.35	0.00
Z224	0.00	73.23	63.23	0.00
Z225	0.00	73.21	63.21	0.00
Z226	0.00	73.17	63.17	0.00
Z227	0.00	73.11	63.11	0.00
Z228	0.00	72.96	62.96	0.00
Z229	0.00	72.93	62.93	0.00
Z230	1.44	72.93	62.93	0.00
Z231	0.00	73.04	63.04	0.00
Z232	0.00	72.94	62.94	0.00
Z233	1.44	72.93	62.93	0.00
Z234	0.00	73.11	63.11	0.00
Z235	0.00	73.10	63.10	0.00
Z236	1.44	73.09	63.09	0.00
Z41	0.00	80.80	70.80	0.00
Z47	0.00	80.61	70.61	0.00
Z237	0.00	80.24	70.24	0.00
Z238	0.00	79.78	69.78	0.00
Z239	0.00	77.80	67.80	0.00
Z240	0.00	77.43	67.43	0.00
Z241	0.00	77.09	67.09	0.00
Z242	0.00	76.79	66.79	0.00
Z243	0.00	76.49	66.49	0.00
Z244	0.00	75.90	65.90	0.00
Z245	0.00	75.83	65.83	0.00
Z246	0.00	75.78	65.78	0.00
Z247	0.00	75.70	65.70	0.00
Z248	0.00	75.68	65.68	0.00
Z249	1.44	75.68	65.68	0.00
Z250	0.00	75.77	65.77	0.00
Z251	0.00	75.74	65.74	0.00
Z252	1.44	80.80	70.80	0.00
Z253	0.00	80.71	70.71	0.00
Z254	1.44	80.70	70.70	0.00
Z255	1.44	80.70	70.70	0.00
Z256	1.44	80.61	70.61	0.00
Z257	1.44	80.24	70.24	0.00
Z258	1.44	79.78	69.78	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z259	1.44	77.80	67.80	0.00
Z260	1.44	77.43	67.43	0.00
Z261	1.44	77.08	67.08	0.00
Z262	1.44	76.78	66.78	0.00
Z263	1.44	76.78	66.78	0.00
Z264	1.44	76.49	66.49	0.00
Z265	1.44	76.49	66.49	0.00
Z266	1.44	75.90	65.90	0.00
Z267	1.44	75.82	65.82	0.00
Z268	0.00	75.75	65.75	0.00
Z269	1.44	75.68	65.68	0.00
Z270	1.44	75.70	65.70	0.00
Z271	1.44	75.74	65.74	0.00
Z272	1.44	75.77	65.77	0.00
Z273	1.44	75.74	65.74	0.00
Z274	1.44	75.74	65.74	0.00
Z275	0.00	73.87	63.87	0.00
Z276	0.00	73.86	63.86	0.00
Z277	0.00	73.72	63.72	0.00
Z278	0.00	73.70	63.70	0.00
Z279	0.00	73.69	63.69	0.00
Z280	1.44	73.69	63.69	0.00
Z281	0.00	75.19	65.19	0.00
Z282	0.00	75.18	65.18	0.00
Z283	1.44	75.32	65.32	0.00
Z284	0.00	75.34	65.34	0.00
Z285	0.00	75.30	65.30	0.00
Z286	0.00	75.09	65.09	0.00
Z287	0.00	74.97	64.97	0.00
Z288	0.00	74.89	64.89	0.00
Z289	0.00	74.85	64.85	0.00
Z290	1.44	74.85	64.85	0.00
Z291	0.00	75.66	65.66	0.00
Z292	1.44	73.67	63.67	0.00
Z293	0.00	76.75	66.75	0.00
Z294	0.00	74.87	64.87	0.00
Z295	1.44	73.87	63.87	0.00
Z296	1.44	73.86	63.86	0.00
Z297	1.44	73.72	63.72	0.00
Z298	1.44	73.69	63.69	0.00
Z299	1.44	73.69	63.69	0.00
Z300	1.44	75.18	65.18	0.00
Z301	1.44	75.18	65.18	0.00
Z302	1.44	75.30	65.30	0.00
Z303	1.44	74.85	64.85	0.00
Z304	1.44	74.89	64.89	0.00
Z305	1.44	74.96	64.96	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z306	1.44	75.09	65.09	0.00
Z307	0.00	74.76	64.76	0.00
Z308	0.00	73.04	63.04	0.00
Z309	0.00	72.31	62.31	0.00
Z310	0.00	72.29	62.29	0.00
Z311	0.00	72.20	62.20	0.00
Z312	1.44	72.17	62.17	0.00
Z313	0.00	72.17	62.17	0.00
Z314	0.00	72.17	62.17	0.00
Z315	1.44	72.17	62.17	0.00
Z316	1.44	72.16	62.16	0.00
Z317	0.00	72.07	62.07	0.00
Z318	1.44	72.07	62.07	0.00
Z319	1.44	72.07	62.07	0.00
Z320	1.44	72.29	62.29	0.00
Z321	1.44	73.03	63.03	0.00
Z322	0.00	74.44	64.44	0.00
Z323	0.00	74.74	64.74	0.00
Z324	0.00	74.58	64.58	0.00
Z325	0.00	73.85	63.85	0.00
Z326	0.00	73.71	63.71	0.00
Z327	0.00	73.65	63.65	0.00
Z328	0.00	72.73	62.73	0.00
Z329	0.00	72.70	62.70	0.00
Z330	0.00	72.43	62.43	0.00
Z331	0.00	72.30	62.30	0.00
Z332	0.00	71.99	61.99	0.00
Z333	0.00	71.99	61.99	0.00
Z334	0.00	71.98	61.98	0.00
Z335	1.44	74.74	64.74	0.00
Z336	1.44	74.74	64.74	0.00
Z337	1.44	74.58	64.58	0.00
Z338	1.44	73.85	63.85	0.00
Z339	1.44	73.71	63.71	0.00
Z340	1.44	73.65	63.65	0.00
Z341	1.44	72.73	62.73	0.00
Z342	1.44	72.70	62.70	0.00
Z343	1.44	72.43	62.43	0.00
Z344	1.44	72.43	62.43	0.00
Z345	1.44	72.29	62.29	0.00
Z346	1.44	71.99	61.99	0.00
Z347	1.44	71.99	61.99	0.00
Z348	1.44	71.98	61.98	0.00
Z349	1.44	71.98	61.98	0.00
Z350	0.00	73.34	63.34	0.00
Z351	0.00	73.32	63.32	0.00
Z352	0.00	72.79	62.79	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z353	0.00	72.59	62.59	0.00
Z354	0.00	72.42	62.42	0.00
Z355	0.00	72.35	62.35	0.00
Z356	1.44	72.35	62.35	0.00
Z357	1.44	72.33	62.33	0.00
Z358	1.44	73.34	63.34	0.00
Z359	1.44	73.31	63.31	0.00
Z360	1.44	72.78	62.78	0.00
Z361	1.44	72.59	62.59	0.00
Z362	1.44	72.41	62.41	0.00
Z363	1.44	72.41	62.41	0.00
Z364	0.00	74.25	64.25	0.00
Z365	0.00	74.23	64.23	0.00
Z366	0.00	74.23	64.23	0.00
Z367	0.00	74.14	64.14	0.00
Z368	1.44	74.11	64.11	0.00
Z369	0.00	74.12	64.12	0.00
Z370	0.00	73.14	63.15	0.00
Z371	0.00	73.12	63.12	0.00
Z372	0.00	73.01	63.01	0.00
Z373	0.00	72.97	62.97	0.00
Z374	1.44	72.97	62.97	0.00
Z375	0.00	72.65	62.65	0.00
Z376	0.00	72.64	62.64	0.00
Z377	0.00	71.94	61.94	0.00
Z378	0.00	71.90	61.90	0.00
Z379	0.00	71.84	61.84	0.00
Z380	0.00	71.80	61.80	0.00
Z381	1.44	71.79	61.79	0.00
Z382	0.00	71.85	61.85	0.00
Z383	0.00	71.84	61.84	0.00
Z384	0.00	71.74	61.74	0.00
Z385	1.44	71.73	61.73	0.00
Z386	1.44	74.14	64.14	0.00
Z387	1.44	74.14	64.14	0.00
Z388	1.44	74.23	64.23	0.00
Z389	0.00	74.00	64.00	0.00
Z390	1.44	73.99	63.99	0.00
Z391	1.44	74.12	64.12	0.00
Z392	1.44	73.12	63.12	0.00
Z393	1.44	73.01	63.01	0.00
Z394	1.44	72.97	62.97	0.00
Z395	1.44	72.64	62.64	0.00
Z396	1.44	72.63	62.63	0.00
Z397	1.44	71.93	61.93	0.00
Z398	1.44	71.84	61.84	0.00
Z399	1.44	71.80	61.80	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z400	0.00	74.07	64.07	0.00
Z401	0.00	74.08	64.08	0.00
Z402	0.00	73.84	63.84	0.00
Z403	0.00	73.74	63.74	0.00
Z404	0.00	73.53	63.53	0.00
Z405	0.00	73.40	63.40	0.00
Z406	1.44	73.39	63.39	0.00
Z407	1.44	74.07	64.07	0.00
Z408	1.44	73.84	63.84	0.00
Z409	1.44	73.74	63.74	0.00
Z410	1.44	73.53	63.53	0.00
Z411	1.44	73.40	63.40	0.00
Z412	0.00	74.01	64.01	0.00
Z413	0.00	73.92	63.92	0.00
Z414	0.00	73.88	63.88	0.00
Z415	1.44	73.88	63.88	0.00
Z416	1.44	74.01	64.01	0.00
Z417	1.44	74.01	64.01	0.00
Z418	1.44	73.91	63.91	0.00
Z419	1.44	73.88	63.88	0.00
Z420	1.44	73.91	63.91	0.00
Z421	0.00	73.44	63.44	0.00
Z422	0.00	73.43	63.43	0.00
Z423	0.00	73.38	63.38	0.00
Z424	1.44	73.37	63.37	0.00
Z425	1.44	73.38	63.38	0.00
Z426	1.44	73.43	63.43	0.00
Z427	1.44	73.44	63.44	0.00
Z428	1.44	73.09	63.09	0.00
Z429	1.44	73.10	63.10	0.00
Z430	1.44	73.49	63.49	0.00
Z431	1.44	73.44	63.44	0.00
Z432	1.44	73.35	63.35	0.00
Z433	1.44	73.22	63.22	0.00
Z434	1.44	73.21	63.21	0.00
Z435	1.44	73.17	63.17	0.00
Z436	1.44	72.96	62.96	0.00
Z437	1.44	72.93	62.93	0.00
Z438	1.44	73.04	63.04	0.00
Z439	1.44	72.93	62.93	0.00
Z440	0.00	73.55	63.55	0.00
Z441	1.44	73.55	63.55	0.00
Z442	0.00	73.27	63.27	0.00
Z443	1.44	73.27	63.27	0.00
Z444	0.00	73.26	63.26	0.00
Z445	1.44	73.26	63.26	0.00
Z446	0.00	73.25	63.25	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z447	1.44	73.24	63.24	0.00
Z448	0.00	73.11	63.11	0.00
Z449	1.44	73.10	63.10	0.00
Z450	1.44	73.10	63.10	0.00
Z451	0.00	73.03	63.03	0.00
Z452	1.44	73.02	63.02	0.00
Z453	0.00	73.00	63.00	0.00
Z454	1.44	73.00	63.00	0.00
Z455	0.00	72.99	62.99	0.00
Z456	1.44	72.99	62.99	0.00
Z457	0.00	72.99	62.99	0.00
Z458	1.44	72.99	62.99	0.00
Z459	0.00	73.41	63.41	0.00
Z460	1.44	73.41	63.41	0.00
Z461	0.00	73.41	63.41	0.00
Z462	0.00	73.48	63.48	0.00
Z463	0.00	73.49	63.49	0.00
Z464	1.44	73.47	63.47	0.00
Z465	1.44	73.47	63.47	0.00
Z466	0.00	73.52	63.52	0.00
Z467	0.00	73.56	63.56	0.00
Z468	0.00	73.53	63.53	0.00
Z469	0.00	73.52	63.52	0.00
Z470	1.44	73.50	63.50	0.00
Z471	1.44	73.52	63.52	0.00
Z472	0.00	73.47	63.47	0.00
Z473	1.44	73.47	63.47	0.00
Z474	0.00	73.45	63.45	0.00
Z475	1.44	73.45	63.45	0.00
Z476	1.44	73.45	63.45	0.00
Z477	0.00	74.97	64.97	0.00
Z478	1.44	74.97	64.97	0.00
Z479	1.44	74.94	64.94	0.00
Z480	1.44	75.03	65.03	0.00
Z481	0.00	75.03	65.03	0.00
Z482	0.00	73.40	63.40	0.00
Z483	0.00	73.39	63.39	0.00
Z484	0.00	73.37	63.37	0.00
Z485	0.00	73.35	63.35	0.00
Z486	0.00	73.27	63.27	0.00
Z487	0.00	73.16	63.16	0.00
Z488	0.00	73.15	63.15	0.00
Z489	0.00	72.86	62.86	0.00
Z490	0.00	72.86	62.86	0.00
Z491	0.00	72.81	62.81	0.00
Z492	1.44	72.81	62.81	0.00
Z493	0.00	72.83	62.83	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z494	0.00	72.77	62.77	0.00
Z495	0.00	72.76	62.76	0.00
Z496	1.44	72.76	62.76	0.00
Z497	1.44	73.40	63.40	0.00
Z498	1.44	73.38	63.38	0.00
Z499	1.44	73.36	63.36	0.00
Z500	1.44	73.35	63.35	0.00
Z501	1.44	73.27	63.27	0.00
Z502	1.44	73.16	63.16	0.00
Z503	1.44	72.81	62.81	0.00
Z504	1.44	72.86	62.86	0.00
Z505	1.44	72.76	62.76	0.00
Z506	1.44	72.77	62.77	0.00
Z507	1.44	72.82	62.82	0.00
Z508	1.44	72.82	62.82	0.00
Z509	0.00	73.52	63.52	0.00
Z510	0.00	73.51	63.51	0.00
Z511	0.00	73.51	63.51	0.00
Z512	0.00	73.51	63.51	0.00
Z513	0.00	73.52	63.52	0.00
Z514	0.00	74.08	64.08	0.00
Z515	0.00	74.37	64.37	0.00
Z516	0.00	74.78	64.78	0.00
Z518	0.00	74.62	64.62	0.00
Z519	0.00	74.53	64.53	0.00
Z520	1.44	74.51	64.51	0.00
Z521	0.00	74.28	64.28	0.00
Z522	0.00	74.08	64.08	0.00
Z523	0.00	74.08	64.08	0.00
Z524	1.44	74.07	64.07	0.00
Z525	0.00	73.52	63.52	0.00
Z526	1.44	73.52	63.52	0.00
Z527	1.44	73.51	63.51	0.00
Z528	1.44	73.51	63.51	0.00
Z529	1.44	73.51	63.51	0.00
Z530	1.44	73.51	63.51	0.00
Z531	0.00	73.48	63.48	0.00
Z532	0.00	73.35	63.35	0.00
Z533	1.44	73.35	63.35	0.00
Z534	1.44	73.35	63.35	0.00
Z535	1.44	73.35	63.35	0.00
Z536	0.00	73.48	63.48	0.00
Z537	1.44	73.47	63.47	0.00
Z538	1.44	73.46	63.46	0.00
Z539	0.00	73.46	63.46	0.00
Z540	0.00	73.40	63.40	0.00
Z541	0.00	73.39	63.39	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z542	1.44	73.38	63.38	0.00
Z543	0.00	73.38	63.38	0.00
Z544	1.44	73.37	63.37	0.00
Z545	1.44	73.37	63.37	0.00
Z546	0.00	73.38	63.38	0.00
Z547	0.00	73.29	63.29	0.00
Z548	1.44	73.29	63.29	0.00
Z549	0.00	73.13	63.13	0.00
Z550	1.44	73.13	63.13	0.00
Z551	0.00	73.12	63.12	0.00
Z552	1.44	73.11	63.11	0.00
Z553	1.44	73.12	63.12	0.00
Z554	0.00	74.07	64.07	0.00
Z555	1.44	74.07	64.07	0.00
Z556	0.00	74.03	64.03	0.00
Z557	1.44	74.03	64.03	0.00
Z558	1.44	74.03	64.03	0.00
Z559	1.44	74.37	64.37	0.00
Z560	1.44	74.78	64.78	0.00
Z561	0.00	75.82	65.82	0.00
Z562	0.00	75.69	65.69	0.00
Z563	1.44	75.68	65.68	0.00
Z564	1.44	75.68	65.68	0.00
Z565	0.00	75.68	65.68	0.00
Z566	1.44	75.64	65.64	0.00
Z567	0.00	75.21	65.21	0.00
Z568	1.44	75.21	65.21	0.00
Z569	0.00	75.10	65.10	0.00
Z570	1.44	75.10	65.10	0.00
Z571	1.44	74.62	64.62	0.00
Z572	1.44	74.28	64.28	0.00
Z573	1.44	74.08	64.08	0.00
Z574	1.44	74.08	64.08	0.00
Z575	0.00	75.64	65.64	0.00
Z576	0.00	73.35	63.35	0.00
Z577	0.00	73.48	63.48	0.00
Z578	0.00	73.38	63.38	0.00
Z579	0.00	73.26	63.26	0.00
Z580	0.00	73.15	63.15	0.00
Z581	1.44	73.13	63.13	0.00
Z582	1.44	73.25	63.25	0.00
Z583	0.00	73.37	63.37	0.00
Z584	1.44	73.37	63.37	0.00
Z585	0.00	73.37	63.37	0.00
Z586	1.44	73.36	63.36	0.00
Z587	1.44	73.36	63.36	0.00
Z588	0.00	73.09	63.09	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z589	1.44	73.09	63.09	0.00
Z590	0.00	73.08	63.08	0.00
Z591	1.44	73.08	63.08	0.00
Z592	1.44	73.08	63.08	0.00
Z593	0.00	73.48	63.48	0.00
Z594	0.00	73.46	63.46	0.00
Z595	0.00	73.48	63.48	0.00
Z596	0.00	73.32	63.32	0.00
Z597	1.44	73.46	63.46	0.00
Z598	1.44	73.32	63.32	0.00
Z599	0.00	73.30	63.30	0.00
Z600	1.44	73.30	63.30	0.00
Z601	0.00	73.13	63.13	0.00
Z602	0.00	73.12	63.12	0.00
Z603	1.44	73.11	63.11	0.00
Z604	0.00	73.13	63.13	0.00
Z605	0.00	73.12	63.12	0.00
Z606	1.44	73.12	63.12	0.00
Z607	1.44	73.12	63.12	0.00
Z608	0.00	72.97	62.97	0.00
Z609	0.00	72.95	62.95	0.00
Z610	1.44	72.95	62.95	0.00
Z611	0.00	72.95	62.95	0.00
Z612	1.44	72.95	62.95	0.00
Z613	0.00	72.90	62.90	0.00
Z614	1.44	72.90	62.90	0.00
Z615	0.00	72.89	62.89	0.00
Z616	1.44	72.89	62.89	0.00
Z617	1.44	72.89	62.89	0.00
Z618	1.44	72.89	62.89	0.00
Z619	0.00	72.92	62.92	0.00
Z620	0.00	72.91	62.91	0.00
Z621	1.44	72.91	62.91	0.00
Z622	0.00	72.90	62.90	0.00
Z623	1.44	72.90	62.90	0.00
Z624	0.00	72.88	62.88	0.00
Z625	1.44	72.88	62.88	0.00
Z626	0.00	72.87	62.87	0.00
Z627	1.44	72.87	62.87	0.00
Z628	1.44	72.87	62.87	0.00
Z629	1.44	72.87	62.87	0.00
Z630	1.44	72.85	62.85	0.00
Z631	0.00	72.88	62.88	0.00
Z632	1.44	72.88	62.88	0.00
Z633	0.00	72.89	62.89	0.00
Z634	1.44	72.89	62.89	0.00
Z517	0.00	73.14	63.14	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z635	0.00	73.17	63.17	0.00
Z636	0.00	73.29	63.29	0.00
Z637	0.00	73.42	63.42	0.00
Z638	1.44	73.41	63.41	0.00
Z639	1.44	73.41	63.41	0.00
Z640	1.44	73.14	63.14	0.00
Z641	0.00	73.15	63.15	0.00
Z642	0.00	73.14	63.14	0.00
Z643	0.00	73.06	63.06	0.00
Z644	1.44	73.06	63.06	0.00
Z645	1.44	73.06	63.06	0.00
Z646	1.44	73.06	63.06	0.00
Z647	1.44	73.12	63.12	0.00
Z648	1.44	73.14	63.14	0.00
Z649	0.00	73.41	63.41	0.00
Z650	0.00	73.15	63.15	0.00
Z651	0.00	73.14	63.14	0.00
Z652	1.44	73.15	63.15	0.00
Z653	1.44	73.14	63.14	0.00
Z654	1.44	73.14	63.14	0.00
Z655	1.44	73.13	63.13	0.00
Z656	0.00	73.51	63.51	0.00
Z657	0.00	73.61	63.61	0.00
Z658	0.00	73.66	63.66	0.00
Z659	0.00	73.74	63.74	0.00
Z660	0.00	73.95	63.95	0.00
Z661	0.00	74.12	64.12	0.00
Z662	1.44	74.84	64.84	0.00
Z663	0.00	75.18	65.18	0.00
Z664	0.00	76.00	66.00	0.00
Z665	0.00	76.74	66.74	0.00
Z666	0.00	77.20	67.20	0.00
Z667	1.44	77.20	67.20	0.00
Z668	1.44	77.20	67.20	0.00
Z669	0.00	76.30	66.30	0.00
Z670	0.00	75.95	65.95	0.00
Z671	0.00	74.79	64.79	0.00
Z672	0.00	74.76	64.76	0.00
Z673	0.00	74.22	64.22	0.00
Z674	0.00	74.74	64.74	0.00
Z675	1.44	74.74	64.74	0.00
Z676	1.44	74.74	64.74	0.00
Z677	1.44	74.75	64.75	0.00
Z678	1.44	75.95	65.95	0.00
Z679	1.44	76.30	66.30	0.00
Z680	1.44	74.21	64.21	0.00
Z681	0.00	74.05	64.05	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z682	0.00	73.97	63.97	0.00
Z683	0.00	73.93	63.93	0.00
Z684	0.00	73.92	63.92	0.00
Z685	0.00	73.90	63.90	0.00
Z686	1.44	73.89	63.89	0.00
Z687	1.44	74.05	64.05	0.00
Z688	1.44	73.97	63.97	0.00
Z689	1.44	73.93	63.93	0.00
Z690	1.44	73.92	63.92	0.00
Z691	1.44	73.90	63.90	0.00
Z692	0.00	75.96	65.96	0.00
Z693	0.00	75.95	65.95	0.00
Z694	1.44	75.95	65.95	0.00
Z695	0.00	75.93	65.93	0.00
Z696	1.44	75.92	65.92	0.00
Z697	1.44	75.92	65.92	0.00
Z698	0.00	75.96	65.96	0.00
Z699	1.44	75.95	65.95	0.00
Z700	1.44	75.90	65.90	0.00
Z701	1.44	75.90	65.90	0.00
Z702	0.00	75.91	65.91	0.00
Z703	0.00	75.12	65.12	0.00
Z704	0.00	74.85	64.85	0.00
Z705	0.00	74.48	64.48	0.00
Z706	0.00	74.37	64.37	0.00
Z707	0.00	74.28	64.28	0.00
Z708	1.44	74.28	64.28	0.00
Z709	0.00	74.29	64.29	0.00
Z710	1.44	74.27	64.27	0.00
Z711	1.44	75.11	65.11	0.00
Z712	1.44	74.84	64.84	0.00
Z713	1.44	74.48	64.48	0.00
Z714	1.44	74.37	64.37	0.00
Z715	1.44	74.27	64.27	0.00
Z716	0.00	74.63	64.63	0.00
Z717	0.00	73.95	63.95	0.00
Z718	0.00	73.89	63.89	0.00
Z719	1.44	73.88	63.88	0.00
Z720	0.00	73.85	63.85	0.00
Z721	0.00	73.84	63.84	0.00
Z722	0.00	73.83	63.83	0.00
Z723	1.44	73.82	63.82	0.00
Z724	1.44	73.82	63.82	0.00
Z725	1.44	73.84	63.84	0.00
Z726	1.44	73.85	63.85	0.00
Z727	1.44	73.89	63.89	0.00
Z728	0.00	73.58	63.58	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z729	0.00	73.57	63.57	0.00
Z730	1.44	73.57	63.57	0.00
Z731	1.44	73.55	63.55	0.00
Z732	0.00	73.45	63.45	0.00
Z733	1.44	73.45	63.45	0.00
Z734	0.00	73.41	63.41	0.00
Z735	1.44	73.41	63.41	0.00
Z736	0.00	73.33	63.33	0.00
Z737	1.44	73.32	63.32	0.00
Z738	0.00	73.28	63.28	0.00
Z739	1.44	73.27	63.27	0.00
Z740	0.00	73.10	63.10	0.00
Z741	1.44	73.10	63.10	0.00
Z742	0.00	73.09	63.09	0.00
Z743	0.00	73.06	63.06	0.00
Z744	0.00	73.05	63.05	0.00
Z745	1.44	73.05	63.05	0.00
Z746	1.44	73.05	63.05	0.00
Z747	1.44	73.01	63.01	0.00
Z748	0.00	73.43	63.43	0.00
Z749	0.00	73.31	63.31	0.00
Z750	0.00	73.22	63.22	0.00
Z751	0.00	73.16	63.16	0.00
Z752	0.00	73.12	63.12	0.00
Z753	0.00	73.12	63.12	0.00
Z754	0.00	73.12	63.12	0.00
Z755	1.44	73.11	63.11	0.00
Z756	1.44	73.11	63.11	0.00
Z757	1.44	73.11	63.11	0.00
Z758	1.44	73.12	63.12	0.00
Z759	1.44	73.31	63.31	0.00
Z760	1.44	73.16	63.16	0.00
Z761	0.00	73.05	63.05	0.00
Z762	0.00	73.03	63.03	0.00
Z763	0.00	73.03	63.03	0.00
Z764	1.44	73.02	63.02	0.00
Z765	1.44	73.03	63.03	0.00
Z766	1.44	73.03	63.03	0.00
Z767	1.44	73.04	63.04	0.00
Z768	0.00	73.14	63.14	0.00
Z769	0.00	73.14	63.14	0.00
Z770	0.00	73.11	63.11	0.00
Z771	0.00	73.08	63.08	0.00
Z772	0.00	73.00	63.00	0.00
Z773	1.44	72.98	62.98	0.00
Z774	0.00	72.97	62.97	0.00
Z775	1.44	72.97	62.97	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z776	1.44	72.97	62.97	0.00
Z777	1.44	73.08	63.08	0.00
Z778	1.44	73.10	63.10	0.00
Z779	1.44	73.13	63.13	0.00
Z780	1.44	73.14	63.14	0.00
Z781	0.00	73.67	63.67	0.00
Z782	0.00	73.60	63.60	0.00
Z783	0.00	73.57	63.57	0.00
Z784	0.00	73.56	63.56	0.00
Z785	0.00	73.61	63.61	0.00
Z786	0.00	73.55	63.55	0.00
Z787	0.00	73.55	63.55	0.00
Z788	0.00	73.55	63.55	0.00
Z789	0.00	73.55	63.55	0.00
Z790	0.00	73.55	63.55	0.00
Z791	0.00	73.63	63.63	0.00
Z792	0.00	73.67	63.67	0.00
Z793	0.00	73.77	63.77	0.00
Z794	0.00	73.82	63.82	0.00
Z795	0.00	73.85	63.85	0.00
Z796	1.44	74.07	64.07	0.00
Z797	1.44	73.82	63.82	0.00
Z798	1.44	73.77	63.77	0.00
Z799	1.44	73.66	63.66	0.00
Z800	1.44	73.62	63.62	0.00
Z801	1.44	73.54	63.54	0.00
Z802	1.44	73.54	63.54	0.00
Z803	1.44	73.55	63.55	0.00
Z804	1.44	73.55	63.55	0.00
Z805	1.44	73.56	63.56	0.00
Z806	1.44	73.57	63.57	0.00
Z807	1.44	73.59	63.59	0.00
Z808	1.44	73.67	63.67	0.00
Z809	0.00	74.08	64.08	0.00
Z810	0.00	73.53	63.53	0.00
Z811	0.00	73.47	63.47	0.00
Z812	0.00	73.43	63.43	0.00
Z813	0.00	73.27	63.27	0.00
Z814	0.00	73.18	63.18	0.00
Z815	0.00	73.13	63.13	0.00
Z816	0.00	73.09	63.09	0.00
Z817	1.44	73.08	63.08	0.00
Z818	1.44	73.08	63.08	0.00
Z819	1.44	73.53	63.53	0.00
Z820	1.44	73.46	63.46	0.00
Z821	1.44	73.43	63.43	0.00
Z822	1.44	73.27	63.27	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z823	1.44	73.18	63.18	0.00
Z824	1.44	73.12	63.12	0.00
Z825	0.00	73.56	63.56	0.00
Z826	0.00	73.50	63.50	0.00
Z827	0.00	73.49	63.49	0.00
Z828	0.00	73.44	63.44	0.00
Z829	0.00	73.36	63.36	0.00
Z830	0.00	73.30	63.30	0.00
Z831	0.00	73.29	63.29	0.00
Z832	0.00	73.15	63.15	0.00
Z833	0.00	73.15	63.15	0.00
Z834	0.00	73.14	63.14	0.00
Z835	0.00	73.03	63.03	0.00
Z836	0.00	73.02	63.02	0.00
Z837	1.44	73.02	63.02	0.00
Z838	1.44	73.56	63.56	0.00
Z839	1.44	73.49	63.49	0.00
Z840	1.44	73.49	63.49	0.00
Z841	1.44	73.43	63.43	0.00
Z842	1.44	73.36	63.36	0.00
Z843	1.44	73.29	63.29	0.00
Z844	1.44	73.29	63.29	0.00
Z845	1.44	73.15	63.15	0.00
Z846	1.44	73.14	63.14	0.00
Z847	1.44	73.13	63.13	0.00
Z848	1.44	73.03	63.03	0.00
Z849	1.44	73.02	63.02	0.00
Z850	0.00	73.64	63.64	0.00
Z851	0.00	73.63	63.63	0.00
Z852	0.00	73.53	63.53	0.00
Z853	0.00	73.50	63.50	0.00
Z854	0.00	73.41	63.41	0.00
Z855	0.00	73.36	63.36	0.00
Z856	0.00	73.24	63.24	0.00
Z857	0.00	73.18	63.18	0.00
Z858	0.00	73.13	63.13	0.00
Z859	0.00	73.11	63.11	0.00
Z860	0.00	73.21	63.21	0.00
Z861	0.00	73.17	63.17	0.00
Z862	1.44	73.64	63.64	0.00
Z863	1.44	73.63	63.63	0.00
Z864	1.44	73.53	63.53	0.00
Z865	1.44	73.50	63.50	0.00
Z866	1.44	73.36	63.36	0.00
Z867	1.44	73.24	63.24	0.00
Z868	1.44	73.18	63.18	0.00
Z869	1.44	73.13	63.13	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z870	1.44	73.11	63.11	0.00
Z871	1.44	73.10	63.10	0.00
Z872	1.44	73.21	63.21	0.00
Z873	1.44	73.17	63.17	0.00
Z874	1.44	73.16	63.16	0.00
Z875	0.00	81.35	71.35	0.00
Z876	0.00	79.98	69.98	0.00
Z877	0.00	79.85	69.85	0.00
Z878	0.00	79.81	69.81	0.00
Z879	0.00	79.69	69.69	0.00
Z880	0.00	79.61	69.61	0.00
Z881	1.44	79.59	69.59	0.00
Z882	0.00	81.28	71.28	0.00
Z883	0.00	81.22	71.22	0.00
Z884	0.00	80.89	70.89	0.00
Z885	0.00	80.73	70.73	0.00
Z886	0.00	80.71	70.71	0.00
Z887	1.44	80.67	70.67	0.00
Z888	0.00	78.74	68.74	0.00
Z889	0.00	78.64	68.64	0.00
Z890	0.00	78.61	68.61	0.00
Z891	0.00	78.58	68.58	0.00
Z892	0.00	78.57	68.57	0.00
Z893	0.00	78.57	68.57	0.00
Z894	0.00	78.57	68.57	0.00
Z895	0.00	78.85	68.85	0.00
Z896	0.00	78.61	68.61	0.00
Z897	0.00	77.60	67.60	0.00
Z898	0.00	77.55	67.55	0.00
Z899	0.00	77.12	67.12	0.00
Z900	0.00	77.09	67.09	0.00
Z901	1.44	77.08	67.08	0.00
Z902	0.00	76.37	66.37	0.00
Z903	0.00	76.35	66.35	0.00
Z904	0.00	76.30	66.30	0.00
Z905	0.00	76.29	66.29	0.00
Z906	0.00	76.29	66.29	0.00
Z907	0.00	76.22	66.22	0.00
Z908	0.00	76.18	66.18	0.00
Z909	0.00	76.11	66.11	0.00
Z910	0.00	76.08	66.08	0.00
Z911	0.00	76.07	66.07	0.00
Z912	0.00	76.05	66.05	0.00
Z913	0.00	76.04	66.04	0.00
Z914	0.00	76.04	66.04	0.00
Z915	0.00	76.04	66.04	0.00
Z916	0.00	76.04	66.04	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z917	0.00	76.04	66.04	0.00
Z918	0.00	76.04	66.04	0.00
Z919	0.00	76.04	66.04	0.00
Z920	0.00	76.05	66.05	0.00
Z921	0.00	76.05	66.05	0.00
Z922	0.00	76.05	66.05	0.00
Z923	0.00	76.07	66.07	0.00
Z924	0.00	76.08	66.08	0.00
Z925	0.00	76.09	66.09	0.00
Z926	0.00	76.14	66.14	0.00
Z927	0.00	76.21	66.21	0.00
Z928	0.00	76.25	66.25	0.00
Z929	0.00	76.29	66.29	0.00
Z930	0.00	76.47	66.47	0.00
Z931	0.00	76.49	66.49	0.00
Z932	0.00	76.61	66.61	0.00
Z933	0.00	76.82	66.82	0.00
Z934	0.00	76.79	66.79	0.00
Z935	0.00	76.78	66.78	0.00
Z936	0.00	76.75	66.75	0.00
Z937	0.00	76.74	66.74	0.00
Z938	0.00	76.38	66.38	0.00
Z939	0.00	76.30	66.30	0.00
Z940	1.44	75.91	65.91	0.00
Z942	0.00	74.73	64.73	0.00
Z943	0.00	74.57	64.57	0.00
Z944	0.00	74.46	64.46	0.00
Z945	0.00	72.50	62.50	0.00
Z946	0.00	72.54	62.54	0.00
Z947	0.00	72.60	62.60	0.00
Z948	0.00	72.79	62.79	0.00
Z949	0.00	73.42	63.42	0.00
Z950	0.00	73.54	63.54	0.00
Z951	0.00	73.83	63.83	0.00
Z952	0.00	73.88	63.88	0.00
Z953	0.00	73.90	63.90	0.00
Z954	0.00	74.12	64.12	0.00
Z955	0.00	74.15	64.15	0.00
Z956	0.00	74.22	64.22	0.00
Z957	0.00	74.48	64.48	0.00
Z958	0.00	75.12	65.12	0.00
Z959	0.00	75.42	65.42	0.00
Z960	0.00	76.84	66.84	0.00
Z961	1.44	80.70	70.70	0.00
Z962	1.44	80.72	70.72	0.00
Z963	1.44	80.72	70.72	0.00
Z964	1.44	80.89	70.89	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z965	1.44	80.89	70.89	0.00
Z966	1.44	81.22	71.22	0.00
Z967	1.44	81.27	71.27	0.00
Z968	1.44	79.61	69.61	0.00
Z969	1.44	79.69	69.69	0.00
Z970	1.44	79.80	69.80	0.00
Z971	0.00	78.73	68.73	0.00
Z972	1.44	77.09	67.09	0.00
Z973	1.44	77.09	67.09	0.00
Z974	1.44	77.55	67.55	0.00
Z975	1.44	76.35	66.35	0.00
Z976	1.44	76.30	66.30	0.00
Z977	1.44	76.29	66.29	0.00
Z978	1.44	76.28	66.28	0.00
Z979	1.44	76.22	66.22	0.00
Z980	1.44	76.18	66.18	0.00
Z981	1.44	76.11	66.11	0.00
Z982	1.44	76.79	66.79	0.00
Z983	1.44	76.61	66.61	0.00
Z984	1.44	76.48	66.48	0.00
Z985	1.44	76.46	66.46	0.00
Z986	1.44	76.28	66.28	0.00
Z987	1.44	76.25	66.25	0.00
Z988	1.44	76.21	66.21	0.00
Z989	1.44	76.14	66.14	0.00
Z990	1.44	76.08	66.08	0.00
Z991	1.44	76.07	66.07	0.00
Z992	1.44	76.05	66.05	0.00
Z993	1.44	76.05	66.05	0.00
Z994	1.44	76.04	66.04	0.00
Z995	1.44	76.03	66.03	0.00
Z996	1.44	76.03	66.03	0.00
Z997	1.44	76.03	66.03	0.00
Z998	1.44	76.03	66.03	0.00
Z999	1.44	76.04	66.04	0.00
Z1000	1.44	76.04	66.04	0.00
Z1001	1.44	76.05	66.05	0.00
Z1002	1.44	76.06	66.06	0.00
Z1003	1.44	78.85	68.85	0.00
Z1004	1.44	78.60	68.60	0.00
Z1005	1.44	78.57	68.57	0.00
Z1006	1.44	78.57	68.57	0.00
Z1007	1.44	78.57	68.57	0.00
Z1008	1.44	78.57	68.57	0.00
Z1009	1.44	78.61	68.61	0.00
Z1010	1.44	78.64	68.64	0.00
Z1011	1.44	78.73	68.73	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1012	0.00	78.03	68.03	0.00
Z1013	0.00	77.02	67.02	0.00
Z1014	0.00	76.73	66.73	0.00
Z1015	0.00	76.00	66.00	0.00
Z1016	0.00	75.90	65.90	0.00
Z1017	0.00	75.64	65.64	0.00
Z1018	0.00	75.57	65.57	0.00
Z1019	0.00	75.52	65.52	0.00
Z1020	1.44	75.50	65.50	0.00
Z1021	0.00	75.63	65.63	0.00
Z1022	1.44	75.60	65.60	0.00
Z1023	1.44	78.03	68.03	0.00
Z1024	1.44	78.02	68.02	0.00
Z1025	1.44	77.02	67.02	0.00
Z1026	1.44	76.73	66.73	0.00
Z1027	1.44	76.00	66.00	0.00
Z1028	1.44	75.90	65.90	0.00
Z1029	1.44	75.57	65.57	0.00
Z1030	1.44	75.52	65.52	0.00
Z1031	1.44	75.62	65.62	0.00
Z1032	1.44	75.64	65.64	0.00
Z1033	0.00	75.64	65.64	0.00
Z1034	0.00	75.69	65.69	0.00
Z1035	0.00	75.88	65.88	0.00
Z1036	0.00	75.94	65.94	0.00
Z1037	0.00	76.18	66.18	0.00
Z1038	0.00	76.27	66.27	0.00
Z1039	1.44	75.64	65.64	0.00
Z1040	1.44	75.69	65.69	0.00
Z1041	1.44	75.88	65.88	0.00
Z1042	1.44	75.94	65.94	0.00
Z1043	1.44	76.17	66.17	0.00
Z1044	1.44	76.26	66.26	0.00
Z1045	1.44	76.26	66.26	0.00
Z1046	0.00	75.91	65.91	0.00
Z1047	0.00	75.77	65.77	0.00
Z1048	0.00	75.59	65.59	0.00
Z1049	0.00	75.50	65.50	0.00
Z1050	0.00	75.34	65.34	0.00
Z1051	0.00	75.30	65.30	0.00
Z1052	0.00	74.90	64.90	0.00
Z1053	0.00	74.85	64.85	0.00
Z1054	0.00	74.84	64.84	0.00
Z1055	1.44	74.83	64.83	0.00
Z1056	1.44	74.83	64.83	0.00
Z1057	1.44	74.85	64.85	0.00
Z1058	1.44	74.89	64.89	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1059	1.44	75.30	65.30	0.00
Z1060	1.44	75.33	65.33	0.00
Z1061	1.44	75.49	65.49	0.00
Z1062	1.44	75.58	65.58	0.00
Z1063	1.44	75.77	65.77	0.00
Z1064	1.44	75.91	65.91	0.00
Z1065	0.00	75.97	65.97	0.00
Z1066	0.00	75.61	65.61	0.00
Z1067	0.00	75.39	65.39	0.00
Z1068	0.00	75.38	65.38	0.00
Z1069	0.00	75.36	65.36	0.00
Z1070	1.44	75.36	65.36	0.00
Z1071	1.44	75.36	65.36	0.00
Z1072	1.44	75.37	65.37	0.00
Z1073	1.44	75.39	65.39	0.00
Z1074	1.44	75.61	65.61	0.00
Z1075	1.44	75.97	65.97	0.00
Z1076	0.00	76.01	66.01	0.00
Z1077	0.00	75.42	65.42	0.00
Z1078	0.00	75.27	65.27	0.00
Z1079	0.00	75.20	65.20	0.00
Z1080	0.00	75.09	65.09	0.00
Z1081	1.44	75.07	65.07	0.00
Z1082	1.44	76.01	66.01	0.00
Z1083	1.44	76.01	66.01	0.00
Z1084	1.44	75.42	65.42	0.00
Z1085	1.44	75.27	65.27	0.00
Z1086	1.44	75.20	65.20	0.00
Z1087	1.44	75.08	65.08	0.00
Z1088	0.00	76.65	66.65	0.00
Z1089	0.00	76.49	66.49	0.00
Z1090	0.00	76.32	66.32	0.00
Z1091	0.00	76.17	66.17	0.00
Z1092	0.00	76.12	66.12	0.00
Z1093	1.44	76.11	66.11	0.00
Z1094	0.00	76.14	66.14	0.00
Z1095	0.00	76.13	66.13	0.00
Z1096	1.44	76.12	66.12	0.00
Z1097	1.44	76.65	66.65	0.00
Z1098	1.44	76.48	66.48	0.00
Z1099	1.44	76.32	66.32	0.00
Z1100	1.44	76.16	66.16	0.00
Z1101	1.44	76.12	66.12	0.00
Z1102	1.44	76.13	66.13	0.00
Z1103	1.44	76.29	66.29	0.00
Z1104	0.00	71.61	61.61	0.00
Z1105	1.44	71.59	61.59	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1106	1.44	71.61	61.61	0.00
Z1107	1.44	71.61	61.61	0.00
Z1108	0.00	75.67	65.67	0.00
Z1109	0.00	75.46	65.46	0.00
Z1110	0.00	75.45	65.45	0.00
Z1111	0.00	75.48	65.48	0.00
Z1112	0.00	75.35	65.35	0.00
Z1113	0.00	75.31	65.31	0.00
Z1114	1.44	75.31	65.31	0.00
Z1115	1.44	75.31	65.31	0.00
Z1116	1.44	75.34	65.34	0.00
Z1117	1.44	75.48	65.48	0.00
Z1118	1.44	75.45	65.45	0.00
Z1119	1.44	75.34	65.34	0.00
Z1120	1.44	74.72	64.72	0.00
Z1121	1.44	74.72	64.72	0.00
Z1122	1.44	74.57	64.57	0.00
Z1123	1.44	74.57	64.57	0.00
Z1124	1.44	74.45	64.45	0.00
Z1125	1.44	74.45	64.45	0.00
Z1126	1.44	72.49	62.49	0.00
Z1127	1.44	72.49	62.49	0.00
Z1128	1.44	72.54	62.54	0.00
Z1129	1.44	72.59	62.59	0.00
Z1130	0.00	72.78	62.78	0.00
Z1131	1.44	72.78	62.78	0.00
Z1132	1.44	72.78	62.78	0.00
Z1133	1.44	73.42	63.42	0.00
Z1134	1.44	73.54	63.54	0.00
Z1135	1.44	73.83	63.83	0.00
Z1136	1.44	73.87	63.87	0.00
Z1137	1.44	73.90	63.90	0.00
Z1138	1.44	74.12	64.12	0.00
Z1139	1.44	74.12	64.12	0.00
Z1140	1.44	74.15	64.15	0.00
Z1141	1.44	74.22	64.22	0.00
Z1142	0.00	75.55	65.55	0.00
Z1143	0.00	75.41	65.41	0.00
Z1144	0.00	74.81	64.81	0.00
Z1145	0.00	74.79	64.79	0.00
Z1146	0.00	74.75	64.75	0.00
Z1147	0.00	74.75	64.75	0.00
Z1148	1.44	74.74	64.74	0.00
Z1149	1.44	74.74	64.74	0.00
Z1150	1.44	74.75	64.75	0.00
Z1151	1.44	74.79	64.79	0.00
Z1152	1.44	75.41	65.41	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1153	1.44	75.55	65.55	0.00
Z1154	0.00	74.50	64.50	0.00
Z1155	0.00	74.50	64.50	0.00
Z1156	1.44	74.49	64.49	0.00
Z1157	1.44	74.50	64.50	0.00
Z1158	1.44	74.50	64.50	0.00
Z1159	1.44	75.42	65.42	0.00
Z1160	0.00	72.05	62.05	0.00
Z1161	0.00	72.04	62.04	0.00
Z1162	0.00	71.78	61.78	0.00
Z1163	0.00	71.67	61.67	0.00
Z1164	1.44	72.05	62.05	0.00
Z1166	1.44	75.11	65.11	0.00
Z1167	1.44	72.04	62.04	0.00
Z1168	1.44	71.77	61.77	0.00
Z1169	1.44	71.77	61.77	0.00
Z1170	1.44	71.67	61.67	0.00
Z1171	1.44	71.67	61.67	0.00
Z1172	0.00	76.76	66.76	0.00
Z1173	1.44	76.74	66.74	0.00
Z1174	1.44	76.76	66.76	0.00
Z1175	0.00	76.78	66.78	0.00
Z1176	0.00	76.76	66.76	0.00
Z1177	0.00	76.71	66.71	0.00
Z1178	0.00	76.70	66.70	0.00
Z1179	0.00	76.60	66.60	0.00
Z1180	0.00	76.57	66.57	0.00
Z1181	1.44	76.57	66.57	0.00
Z1182	1.44	76.71	66.71	0.00
Z1183	1.44	76.70	66.70	0.00
Z1184	1.44	76.60	66.60	0.00
Z1185	1.44	76.57	66.57	0.00
Z1186	0.00	76.54	66.54	0.00
Z1187	0.00	76.45	66.45	0.00
Z1188	0.00	76.43	66.43	0.00
Z1189	0.00	76.38	66.38	0.00
Z1190	0.00	76.38	66.38	0.00
Z1191	1.44	76.37	66.37	0.00
Z1192	1.44	76.37	66.37	0.00
Z1193	1.44	76.38	66.38	0.00
Z1194	1.44	76.43	66.43	0.00
Z1195	1.44	76.44	66.44	0.00
Z1196	0.00	76.50	66.50	0.00
Z1197	0.00	76.50	66.50	0.00
Z1198	0.00	76.46	66.46	0.00
Z1199	0.00	76.42	66.42	0.00
Z1200	0.00	76.41	66.41	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1201	1.44	76.41	66.41	0.00
Z1202	0.00	76.43	66.43	0.00
Z1203	0.00	76.34	66.34	0.00
Z1204	0.00	76.33	66.33	0.00
Z1205	1.44	76.33	66.33	0.00
Z1206	1.44	76.50	66.50	0.00
Z1207	1.44	76.49	66.49	0.00
Z1208	1.44	76.43	66.43	0.00
Z1209	1.44	76.42	66.42	0.00
Z1210	1.44	76.41	66.41	0.00
Z1211	1.44	76.33	66.33	0.00
Z1212	1.44	76.34	66.34	0.00
Z1213	1.44	75.94	65.94	0.00
Z1214	0.00	76.74	66.74	0.00
Z1215	1.44	81.94	71.94	0.00
Z1216	1.44	81.94	71.94	0.00
Z1217	1.44	79.60	69.60	0.00
Z1218	1.44	78.55	68.55	0.00
Z1219	1.44	78.11	68.11	0.00
Z1220	1.44	77.77	67.77	0.00
Z1221	1.44	77.47	67.47	0.00
Z1222	1.44	77.43	67.43	0.00
Z1223	1.44	77.37	67.37	0.00
Z1224	1.44	77.36	67.36	0.00
Z1225	0.00	73.93	63.93	0.00
Z1226	0.00	73.92	63.92	0.00
Z1227	0.00	73.91	63.91	0.00
Z1228	1.44	73.92	63.92	0.00
Z1229	1.44	73.92	63.92	0.00
Z1230	1.44	73.91	63.91	0.00
Z1231	1.44	73.91	63.91	0.00
Z1232	0.00	73.64	63.64	0.00
Z1233	1.44	73.64	63.64	0.00
Z1234	0.00	73.64	63.64	0.00
Z1235	1.44	73.63	63.63	0.00
Z1236	0.00	73.64	63.64	0.00
Z1237	1.44	73.63	63.63	0.00
Z1238	1.44	73.64	63.64	0.00
Z1239	1.44	71.74	61.74	0.00
Z1240	1.44	71.74	61.74	0.00
Z1241	1.44	71.84	61.84	0.00
Z1242	1.44	71.85	61.85	0.00
Z1243	0.00	71.79	61.79	0.00
Z1244	0.00	72.07	62.07	0.00
Z1245	0.00	73.67	63.67	0.00
Z1246	0.00	75.91	65.91	0.00
Z1247	0.00	74.74	64.74	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality	Status
Z1248 S1	0.00 -901.44	77.06 10.00	67.06 0.00	0.00 0.00	Reservoir
Link Results:					
Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
G20	901.44	3.19	12.87		Open
G1	714.33	2.53	8.15		Open
R3	187.11	1.49	15.73		Open
R4	185.67	1.48	4.67		Open
R5	184.23	1.47	4.60		Open
R6	182.79	1.45	4.53		Open
R7	181.35	1.44	4.46		Open
R8	179.91	1.43	4.39		Open
R9	178.47	1.42	4.32		Open
R10	177.03	1.41	4.26		Open
R11	175.59	1.40	4.19		Open
R12	174.15	1.39	4.12		Open
R13	172.71	1.37	4.06		Open
R14	171.27	1.36	3.99		Open
R15	169.83	1.35	3.93		Open
R16	168.39	1.34	3.86		Open
R17	166.95	1.33	3.80		Open
R18	139.59	1.11	2.69		Open
R19	138.15	1.10	2.63		Open
R20	136.71	1.09	2.58		Open
R21	135.27	1.08	2.53		Open
R22	133.83	1.06	2.48		Open
R23	132.39	1.05	2.42		Open
R24	130.95	1.04	2.37		Open
R25	129.51	1.03	2.32		Open
R26	128.07	1.02	2.27		Open
R27	126.63	1.01	2.22		Open
R28	125.19	1.00	2.18		Open
R56	1.44	0.20	0.54		Open
R57	1.44	0.20	0.54		Open
R58	1.44	0.20	0.54		Open
R59	1.44	0.20	0.54		Open
R60	1.44	0.20	0.54		Open
R61	1.44	0.20	0.54		Open
R62	1.44	0.20	0.54		Open
R63	1.44	0.20	0.54		Open
R64	1.44	0.19	0.49		Open
R65	1.44	0.20	0.54		Open
R66	1.44	0.20	0.54		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R67	1.44	0.20	0.54		Open
R68	1.44	0.20	0.54		Open
R69	1.44	0.20	0.54		Open
R29	27.36	1.75	49.00		Open
R71	1.44	0.20	0.54		Open
R72	1.44	0.20	0.54		Open
R73	1.44	0.20	0.54		Open
R74	1.44	0.20	0.54		Open
R75	1.44	0.20	0.54		Open
R76	1.44	0.20	0.54		Open
R77	1.44	0.20	0.54		Open
R78	1.44	0.20	0.54		Open
R79	1.44	0.20	0.54		Open
R80	1.44	0.20	0.54		Open
R81	1.44	0.20	0.54		Open
R30	12.96	0.83	11.00		Open
R31	11.52	0.74	3.62		Open
R32	10.08	0.65	2.84		Open
R33	8.64	0.55	2.15		Open
R34	7.20	0.46	1.55		Open
R35	5.76	0.37	1.04		Open
R36	4.32	0.28	0.62		Open
R37	2.88	0.18	0.30		Open
R38	1.44	0.09	0.09		Open
R91	1.44	0.20	0.54		Open
R92	1.44	0.20	0.54		Open
R93	1.44	0.20	0.54		Open
R94	1.44	0.20	0.54		Open
R95	1.44	0.20	0.54		Open
R96	1.44	0.20	0.54		Open
R97	1.44	0.20	0.54		Open
R98	1.44	0.20	0.54		Open
R39	12.96	0.83	4.49		Open
R40	11.52	0.74	3.62		Open
R41	10.08	0.65	2.84		Open
R42	8.64	0.55	2.15		Open
R43	7.20	0.46	1.55		Open
R44	5.76	0.37	1.04		Open
R45	4.32	0.28	0.62		Open
R46	2.88	0.18	0.30		Open
R47	1.44	0.09	0.09		Open
R107	1.44	0.20	0.54		Open
R108	1.44	0.20	0.54		Open
R109	1.44	0.20	0.54		Open
R110	1.44	0.20	0.54		Open
R111	1.44	0.20	0.54		Open
R112	1.44	0.20	0.54		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R113	1.44	0.20	0.54	Open	
R114	1.44	0.20	0.54	Open	
R49	123.75	0.98	2.13	Open	
R50	120.87	0.96	2.03	Open	
R51	115.11	0.92	1.85	Open	
R52	113.67	0.90	1.81	Open	
R53	112.23	0.89	1.76	Open	
R54	110.79	0.88	1.72	Open	
R55	5.76	0.37	1.81	Open	
R120	4.32	0.28	0.62	Open	
R121	2.88	0.18	0.30	Open	
R122	1.44	0.20	0.54	Open	
R123	1.44	0.20	0.54	Open	
R124	1.44	0.20	0.54	Open	
R125	-1.44	0.20	0.54	Open	
R126	1.44	0.09	0.09	Open	
R127	1.44	0.20	0.54	Open	
R82	103.59	0.82	1.51	Open	
R83	99.27	0.79	1.39	Open	
R84	105.03	0.84	1.55	Open	
R85	97.83	0.78	1.35	Open	
R86	96.39	0.77	1.32	Open	
R87	94.95	0.76	1.28	Open	
R88	93.51	0.74	1.24	Open	
R89	92.07	0.73	1.21	Open	
R90	90.63	0.72	1.17	Open	
R99	89.19	0.71	1.13	Open	
R100	86.31	0.69	12.45	Open	
R101	4.32	0.28	1.11	Open	
R102	2.88	0.18	0.30	Open	
R103	1.44	0.09	0.09	Open	
R104	1.44	0.20	0.54	Open	
R105	1.44	0.20	0.54	Open	
R106	1.44	0.20	0.54	Open	
R115	1.44	0.20	0.54	Open	
R116	1.44	0.09	0.09	Open	
R117	1.44	0.20	0.54	Open	
R118	5.76	0.37	2.07	Open	
R119	4.32	0.28	1.90	Open	
R128	1.44	0.09	0.09	Open	
R129	1.44	0.20	0.54	Open	
R130	1.44	0.20	0.54	Open	
GI31	358.70	1.27	2.12	Open	
R131	12.96	0.83	20.28	Open	
R132	5.76	0.37	1.67	Open	
R133	4.32	0.28	0.62	Open	
R134	2.88	0.18	0.30	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R135	1.44	0.09	0.09	Open	
R136	7.20	0.46	1.55	Open	
R137	5.76	0.37	1.04	Open	
R138	4.32	0.28	0.62	Open	
R139	2.88	0.18	0.30	Open	
R140	1.44	0.09	0.09	Open	
R141	1.44	0.20	0.54	Open	
R142	1.44	0.20	0.54	Open	
R143	1.44	0.20	0.54	Open	
R144	1.44	0.20	0.54	Open	
R145	1.44	0.20	0.54	Open	
R146	1.44	0.20	0.54	Open	
R147	1.44	0.20	0.54	Open	
GI48	345.74	1.22	1.98	Open	
GI49	314.06	1.11	1.64	Open	
R149	15.84	1.01	22.75	Open	
R150	12.96	0.83	4.49	Open	
R151	11.52	0.74	3.62	Open	
R152	10.08	0.65	2.84	Open	
R153	8.64	0.55	2.15	Open	
R154	4.32	0.28	1.17	Open	
R155	2.88	0.18	0.30	Open	
R156	4.32	0.28	0.62	Open	
R157	2.88	0.18	0.30	Open	
R158	1.44	0.09	0.09	Open	
R159	2.88	0.18	0.48	Open	
R160	1.44	0.09	0.09	Open	
R161	1.44	0.20	0.54	Open	
R162	1.44	0.20	0.54	Open	
R163	1.44	0.20	0.54	Open	
R164	1.44	0.20	0.54	Open	
R165	1.44	0.20	0.54	Open	
R166	1.44	0.20	0.54	Open	
R167	1.44	0.20	0.54	Open	
R168	1.44	0.20	0.54	Open	
R169	1.44	0.20	0.54	Open	
GI70	298.22	1.05	1.48	Open	
GI71	182.85	1.46	5.42	Open	
GI72	140.28	1.12	2.71	Open	
R172	20.16	0.66	5.64	Open	
R173	18.72	0.61	1.71	Open	
R174	17.28	0.56	1.48	Open	
R175	15.84	0.52	1.27	Open	
R176	14.40	0.47	1.07	Open	
R177	12.96	0.42	0.88	Open	
R178	4.32	0.28	1.24	Open	
R179	2.88	0.18	0.30	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R180	1.44	0.09	0.09	0.09	Open
R181	8.64	0.55	2.28	2.28	Open
R182	7.20	0.46	1.55	1.55	Open
R183	2.88	0.18	0.44	0.44	Open
R184	1.44	0.09	0.09	0.09	Open
R185	4.32	0.28	0.62	0.62	Open
R186	2.88	0.18	0.30	0.30	Open
R187	1.44	0.09	0.09	0.09	Open
R188	1.44	0.20	0.54	0.54	Open
R189	1.44	0.20	0.54	0.54	Open
R190	1.44	0.20	0.54	0.54	Open
R191	1.44	0.20	0.54	0.54	Open
R192	1.44	0.20	0.54	0.54	Open
R193	1.44	0.20	0.54	0.54	Open
R194	1.44	0.20	0.54	0.54	Open
R195	1.44	0.20	0.54	0.54	Open
R196	1.44	0.20	0.54	0.54	Open
R197	1.44	0.20	0.54	0.54	Open
R198	1.44	0.20	0.54	0.54	Open
G199	120.12	0.96	2.01	2.01	Open
G200	115.80	0.92	2.08	2.08	Open
G201	107.12	0.55	0.52	0.52	Open
G202	99.92	0.51	0.46	0.46	Open
G203	72.56	0.37	0.25	0.25	Open
R200	7.20	0.46	9.05	9.05	Open
R201	4.32	0.28	1.85	1.85	Open
R202	2.88	0.18	0.30	0.30	Open
R203	1.44	0.09	0.09	0.09	Open
R204	2.88	0.18	0.30	0.30	Open
R205	1.44	0.09	0.09	0.09	Open
R206	1.44	0.20	0.54	0.54	Open
R207	1.44	0.20	0.54	0.54	Open
R208	1.44	0.20	0.54	0.54	Open
R209	27.36	0.89	23.23	23.23	Open
R210	21.60	0.71	2.22	2.22	Open
R211	20.16	0.66	1.96	1.96	Open
R212	15.84	0.52	1.27	1.27	Open
R213	14.40	0.47	1.07	1.07	Open
R214	12.96	0.42	0.88	0.88	Open
R215	11.52	0.38	0.71	0.71	Open
R216	10.08	0.33	0.56	0.56	Open
R217	8.64	0.28	0.43	0.43	Open
R218	4.32	0.28	0.69	0.69	Open
R219	2.88	0.18	0.30	0.30	Open
R220	1.44	0.09	0.09	0.09	Open
R221	4.32	0.28	0.65	0.65	Open
R222	2.88	0.18	0.30	0.30	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R223	1.44	0.09	0.09	0.09	Open
R224	4.32	0.28	0.63	0.63	Open
R225	2.88	0.18	0.30	0.30	Open
R226	1.44	0.09	0.09	0.09	Open
R48	31.68	1.04	4.84	4.84	Open
R70	31.68	1.04	4.48	4.48	Open
R148	30.24	0.99	4.11	4.11	Open
R170	25.92	0.85	3.10	3.10	Open
R171	24.48	1.57	28.34	28.34	Open
R199	23.04	1.48	12.90	12.90	Open
R227	21.60	1.38	11.45	11.45	Open
R228	20.16	1.29	10.08	10.08	Open
R229	18.72	1.20	8.80	8.80	Open
R230	15.84	1.01	6.48	6.48	Open
R231	12.96	0.83	4.49	4.49	Open
R232	11.52	0.74	3.62	3.62	Open
R233	10.08	0.65	2.84	2.84	Open
R234	5.76	0.37	1.72	1.72	Open
R235	2.88	0.18	0.30	0.30	Open
R236	1.44	0.09	0.09	0.09	Open
R237	4.32	0.28	2.96	2.96	Open
R238	2.88	0.18	0.30	0.30	Open
R239	1.44	0.20	0.54	0.54	Open
R240	27.36	0.89	3.42	3.42	Open
R241	1.44	0.20	0.54	0.54	Open
R242	1.44	0.09	0.09	0.09	Open
R243	1.44	0.20	0.54	0.54	Open
R244	1.44	0.20	0.54	0.54	Open
R245	1.44	0.20	0.54	0.54	Open
R246	1.44	0.20	0.54	0.54	Open
R247	1.44	0.20	0.54	0.54	Open
R248	1.44	0.20	0.54	0.54	Open
R249	1.44	0.20	0.54	0.54	Open
R250	1.44	0.20	0.54	0.54	Open
R251	1.44	0.20	0.54	0.54	Open
R252	1.44	0.20	0.54	0.54	Open
R253	1.44	0.20	0.54	0.54	Open
R254	1.44	0.20	0.54	0.54	Open
R255	4.32	0.28	0.62	0.62	Open
R256	1.44	0.20	0.54	0.54	Open
R257	1.44	0.20	0.54	0.54	Open
R258	1.44	0.20	0.54	0.54	Open
R259	1.44	0.20	0.54	0.54	Open
R260	1.44	0.20	0.54	0.54	Open
R261	1.44	0.20	0.54	0.54	Open
R263	8.64	0.55	2.15	2.15	Open
R264	7.20	0.46	1.55	1.55	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R265	5.76	0.37		1.04	Open
R266	4.32	0.28		0.62	Open
R267	2.88	0.18		0.30	Open
R268	1.44	0.09		0.09	Open
R269	-8.64	0.55		2.20	Open
R270	2.88	0.18		0.71	Open
R271	-93.56	0.74		1.24	Open
R272	7.20	0.46		1.68	Open
R273	5.76	0.37		1.04	Open
R274	4.32	0.28		0.62	Open
R275	2.88	0.18		0.30	Open
R276	1.44	0.09		0.09	Open
R277	24.48	1.57		46.62	Open
R278	1.44	0.09		0.09	Open
R279	15.84	1.01		6.48	Open
R280	14.40	0.92		5.44	Open
R281	-118.04	0.94		1.94	Open
R282	1.44	0.20		0.54	Open
R283	1.44	0.20		0.54	Open
R284	1.44	0.20		0.54	Open
R285	1.44	0.20		0.54	Open
R286	1.44	0.20		0.54	Open
R287	1.44	0.20		0.54	Open
R288	1.44	0.20		0.54	Open
R289	1.44	0.20		0.54	Open
R290	1.44	0.20		0.54	Open
R291	1.44	0.20		0.54	Open
R292	1.44	0.20		0.54	Open
R293	1.44	0.20		0.54	Open
R294	82.04	0.65		0.97	Open
R295	31.68	1.04		39.57	Open
R296	10.08	0.65		2.91	Open
R297	1.44	0.20		0.54	Open
R298	8.64	0.55		2.15	Open
R299	8.64	0.55		2.15	Open
R300	7.20	0.46		1.55	Open
R301	4.32	0.28		0.62	Open
R302	2.88	0.18		0.30	Open
R303	1.44	0.09		0.09	Open
R304	2.88	0.18		0.31	Open
R305	1.44	0.20		0.54	Open
R306	1.44	0.09		0.09	Open
R307	1.44	0.20		0.54	Open
R308	1.44	0.20		0.54	Open
R309	1.44	0.20		0.54	Open
R310	50.36	0.40		0.38	Open
R311	21.60	0.71		2.22	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R312	18.72	0.61		1.71	Open
R313	17.28	1.11		8.98	Open
R314	15.84	1.01		6.48	Open
R315	14.40	0.92		5.44	Open
R316	12.96	0.83		4.49	Open
R317	11.52	0.74		3.62	Open
R318	10.08	0.65		2.84	Open
R319	7.20	0.46		1.55	Open
R320	5.76	0.37		1.04	Open
R321	4.32	0.28		0.62	Open
R322	2.88	0.18		0.30	Open
R323	1.44	0.20		0.54	Open
R324	1.44	0.20		0.54	Open
R325	1.44	0.20		0.54	Open
R326	1.44	0.20		0.54	Open
R327	1.44	0.20		0.54	Open
R328	1.44	0.20		0.54	Open
R329	1.44	0.20		0.54	Open
R330	1.44	0.20		0.54	Open
R331	1.44	0.20		0.54	Open
R332	1.44	0.20		0.54	Open
R333	1.44	0.20		0.54	Open
R334	1.44	0.20		0.54	Open
R335	1.44	0.20		0.54	Open
R336	1.44	0.20		0.54	Open
R337	1.44	0.20		0.54	Open
R338	11.52	0.74		3.80	Open
R339	8.64	0.55		2.15	Open
R340	7.20	0.46		1.55	Open
R341	5.76	0.37		1.04	Open
R342	2.88	0.18		0.30	Open
R343	1.44	0.09		0.10	Open
R344	1.44	0.09		0.09	Open
R345	1.44	0.20		0.54	Open
R346	1.44	0.20		0.54	Open
R347	1.44	0.20		0.54	Open
R348	1.44	0.20		0.54	Open
R349	1.44	0.20		0.54	Open
R350	1.44	0.20		0.54	Open
R351	10.08	0.65		2.84	Open
R352	38.84	0.31		0.24	Open
R353	8.60	0.07		0.01	Open
R354	8.68	0.07		0.02	Open
R355	5.76	0.37		3.53	Open
R356	4.32	0.28		0.62	Open
R357	1.44	0.09		0.09	Open
R358	1.44	0.20		0.54	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R359	1.44	0.20	0.54	Open	
R360	1.44	0.20	0.54	Open	
R361	24.48	0.80	5.37	Open	
R362	23.04	0.75	2.50	Open	
R363	21.60	0.71	2.22	Open	
R364	5.76	0.37	2.46	Open	
R365	4.32	0.28	0.62	Open	
R366	2.88	0.18	0.30	Open	
R367	1.44	0.09	0.09	Open	
R368	1.44	0.09	0.10	Open	
R369	15.84	1.01	7.99	Open	
R370	14.40	0.92	5.44	Open	
R371	12.96	0.83	4.49	Open	
R372	11.52	0.74	3.62	Open	
R373	4.32	0.28	0.71	Open	
R374	2.88	0.18	0.30	Open	
R375	1.44	0.09	0.09	Open	
R376	7.20	0.46	1.55	Open	
R377	5.76	0.37	1.04	Open	
R378	4.32	0.28	0.62	Open	
R379	1.44	0.09	0.09	Open	
R380	1.44	0.20	0.54	Open	
R381	1.44	0.20	0.54	Open	
R382	1.44	0.20	0.54	Open	
R383	1.44	0.20	0.54	Open	
R384	1.44	0.20	0.54	Open	
R385	1.44	0.20	0.54	Open	
R386	1.44	0.20	0.54	Open	
R387	1.44	0.20	0.54	Open	
R388	1.44	0.20	0.54	Open	
R389	17.28	1.11	30.06	Open	
R390	8.64	0.55	2.15	Open	
R391	7.20	0.46	1.55	Open	
R392	5.76	0.37	1.04	Open	
R393	4.32	0.28	0.62	Open	
R394	2.88	0.18	0.30	Open	
R395	1.44	0.09	0.09	Open	
R396	1.44	0.20	0.54	Open	
R397	1.44	0.20	0.54	Open	
R398	1.44	0.20	0.54	Open	
R399	1.44	0.20	0.54	Open	
R400	1.44	0.09	0.09	Open	
R401	8.64	0.55	3.61	Open	
R402	1.44	0.20	0.54	Open	
R403	1.44	0.20	0.54	Open	
R404	5.76	0.37	1.04	Open	
R405	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R406	1.44	0.20	0.54	Open	
R407	2.88	0.18	0.30	Open	
R408	1.44	0.20	0.54	Open	
R409	1.44	0.09	0.09	Open	
R410	5.76	0.37	1.13	Open	
R411	4.32	0.28	0.62	Open	
R412	2.88	0.18	0.30	Open	
R413	1.44	0.09	0.09	Open	
R414	1.44	0.20	0.54	Open	
R415	1.44	0.20	0.54	Open	
R416	1.44	0.20	0.54	Open	
R417	1.44	0.20	0.54	Open	
R418	1.44	0.20	0.54	Open	
R419	1.44	0.20	0.54	Open	
R420	1.44	0.20	0.54	Open	
R421	1.44	0.20	0.54	Open	
R422	1.44	0.20	0.54	Open	
R423	1.44	0.20	0.54	Open	
R424	1.44	0.20	0.54	Open	
R425	1.44	0.20	0.54	Open	
R426	1.44	0.20	0.54	Open	
R427	1.44	0.20	0.54	Open	
R428	1.44	0.20	0.54	Open	
G429	58.16	0.30	0.17	Open	
G430	50.96	0.26	0.16	Open	
G431	46.01	0.23	0.11	Open	
R429	24.48	0.32	0.91	Open	
R431	1.44	0.09	0.14	Open	
R433	-1.44	0.09	0.09	Open	
R434	-2.88	0.18	0.30	Open	
R435	-4.32	0.28	0.62	Open	
R436	-5.76	0.37	1.22	Open	
R437	-8.64	0.28	0.43	Open	
R438	-10.08	0.33	0.56	Open	
R439	-11.52	0.38	0.71	Open	
R440	-12.96	0.42	0.88	Open	
R441	-14.40	0.47	1.38	Open	
R442	1.44	0.20	0.54	Open	
R443	1.44	0.20	0.54	Open	
R444	1.44	0.20	0.54	Open	
R445	1.44	0.20	0.54	Open	
R446	1.44	0.20	0.54	Open	
R447	1.44	0.20	0.54	Open	
R448	1.44	0.20	0.54	Open	
R449	1.44	0.20	0.54	Open	
R450	1.44	0.20	0.54	Open	
R451	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R452	1.44	0.20	0.54	Open	
R453	1.44	0.20	0.54	Open	
R454	1.44	0.20	0.54	Open	
R455	7.20	0.46	5.98	Open	
R456	2.88	0.18	0.30	Open	
R457	1.44	0.20	0.54	Open	
R458	1.44	0.09	0.09	Open	
R459	4.32	0.28	0.70	Open	
R460	2.88	0.18	0.30	Open	
R461	1.44	0.09	0.09	Open	
R462	1.44	0.20	0.54	Open	
R463	1.44	0.20	0.54	Open	
R464	4.32	0.28	4.13	Open	
R465	2.88	0.18	0.30	Open	
R466	1.44	0.09	0.09	Open	
R467	1.44	0.20	0.54	Open	
R468	1.44	0.20	0.54	Open	
R469	20.16	0.33	2.50	Open	
R470	18.72	0.31	0.33	Open	
R471	17.28	0.29	0.29	Open	
R472	15.84	0.26	0.24	Open	
R473	1.44	0.20	0.54	Open	
R474	1.44	0.20	0.54	Open	
R475	1.44	0.20	0.54	Open	
R476	1.44	0.20	0.54	Open	
R477	14.40	0.24	0.21	Open	
R478	12.96	0.34	0.56	Open	
R479	11.52	0.30	0.41	Open	
R480	1.44	0.20	0.54	Open	
R481	1.44	0.20	0.54	Open	
R482	11.52	0.38	0.75	Open	
R483	10.08	0.33	0.56	Open	
R484	7.20	0.46	3.72	Open	
R485	4.32	0.28	0.62	Open	
R486	2.88	0.18	0.30	Open	
R487	1.44	0.09	0.09	Open	
R488	2.88	0.18	0.32	Open	
R489	1.44	0.20	0.54	Open	
R490	1.44	0.20	0.54	Open	
R491	1.44	0.09	0.09	Open	
R492	1.44	0.20	0.54	Open	
R493	1.44	0.20	0.54	Open	
R494	1.44	0.20	0.54	Open	
R495	1.44	0.20	0.54	Open	
R496	42.57	1.11	5.49	Open	
R497	15.84	1.01	23.95	Open	
R498	2.88	0.18	0.88	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R499	1.44	0.09	0.09	Open	
R500	1.44	0.20	0.54	Open	
R501	1.44	0.20	0.54	Open	
R502	12.96	0.83	4.49	Open	
R503	11.52	0.74	3.62	Open	
R504	10.08	0.65	2.84	Open	
R505	1.44	0.20	0.54	Open	
R506	1.44	0.20	0.54	Open	
R507	8.64	0.55	2.15	Open	
R508	7.20	0.46	1.55	Open	
R509	1.44	0.20	0.54	Open	
R510	1.44	0.09	0.10	Open	
R511	5.76	0.37	1.04	Open	
R512	4.32	0.28	0.62	Open	
R513	2.88	0.18	0.30	Open	
R514	1.44	0.09	0.09	Open	
R515	1.44	0.20	0.54	Open	
R516	1.44	0.20	0.54	Open	
R517	1.44	0.20	0.54	Open	
R518	26.73	0.70	1.89	Open	
R519	25.29	0.66	1.71	Open	
R520	23.85	0.62	1.53	Open	
R521	1.44	0.20	0.54	Open	
R522	1.44	0.20	0.54	Open	
R523	4.32	0.28	1.61	Open	
R524	2.88	0.18	0.30	Open	
R525	1.44	0.09	0.09	Open	
R526	1.44	0.20	0.54	Open	
R527	1.44	0.20	0.54	Open	
R528	19.53	0.51	1.07	Open	
R529	4.95	0.13	0.36	Open	
R530	3.51	0.09	0.05	Open	
R531	2.07	0.05	0.02	Open	
R532	0.63	0.02	0.00	Open	
R533	-0.81	0.02	0.00	Open	
R534	-2.25	0.06	0.02	Open	
R535	1.44	0.20	0.54	Open	
R536	1.44	0.20	0.54	Open	
R537	1.44	0.20	0.54	Open	
R538	1.44	0.20	0.54	Open	
R539	1.44	0.20	0.54	Open	
R540	17.28	0.56	8.13	Open	
R541	4.32	0.28	0.66	Open	
R542	2.88	0.18	0.30	Open	
R543	1.44	0.09	0.09	Open	
R544	1.44	0.20	0.54	Open	
R545	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R546	12.96	0.42	0.88	Open
R547	11.52	0.38	0.71	Open
R548	10.08	0.33	0.56	Open
R549	4.32	0.28	1.34	Open
R550	2.88	0.18	0.30	Open
R551	1.44	0.09	0.09	Open
R552	1.44	0.20	0.54	Open
R553	1.44	0.20	0.54	Open
R554	1.44	0.20	0.54	Open
R555	1.44	0.20	0.54	Open
R556	1.44	0.20	0.54	Open
R557	5.76	0.37	1.17	Open
R558	4.32	0.28	0.62	Open
R559	2.88	0.18	0.30	Open
R560	1.44	0.09	0.09	Open
R561	1.44	0.20	0.54	Open
R562	1.44	0.20	0.54	Open
R563	1.44	0.20	0.54	Open
R564	115.36	0.59	0.65	Open
G565	21.53	0.11	0.03	Open
R565	11.52	0.74	7.46	Open
R566	7.20	0.46	1.55	Open
R567	5.76	0.37	1.04	Open
R568	1.44	0.09	0.10	Open
R569	4.32	0.28	0.62	Open
R570	2.88	0.18	0.30	Open
R571	1.44	0.09	0.09	Open
R572	4.32	0.28	1.95	Open
R573	2.88	0.18	0.30	Open
R574	1.44	0.20	0.54	Open
R575	1.44	0.20	0.54	Open
R576	1.44	0.20	0.54	Open
R577	1.44	0.20	0.54	Open
R578	1.44	0.20	0.54	Open
R579	1.44	0.09	0.13	Open
G580	10.01	0.05	0.01	Open
G581	-13.31	0.07	0.01	Open
R580	1.44	0.20	0.54	Open
R581	1.44	0.20	0.54	Open
R582	1.44	0.20	0.54	Open
R583	1.44	0.20	0.54	Open
R584	1.44	0.20	0.54	Open
R585	1.44	0.20	0.54	Open
R586	1.44	0.20	0.54	Open
R587	1.44	0.20	0.54	Open
R588	1.44	0.20	0.54	Open
R589	1.44	0.20	0.54	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R590	1.44	0.20	0.54	Open
R591	1.44	0.20	0.54	Open
R592	1.44	0.20	0.54	Open
R593	1.44	0.20	0.54	Open
R594	1.44	0.20	0.54	Open
R595	1.44	0.20	0.54	Open
R596	23.32	0.39	3.01	Open
R597	21.88	0.36	0.44	Open
R598	20.44	0.34	0.39	Open
R599	1.44	0.09	0.13	Open
R600	19.00	0.31	0.34	Open
R601	-4.04	0.07	0.02	Open
R602	2.88	0.18	0.45	Open
R603	1.44	0.09	0.09	Open
R604	23.04	0.38	3.14	Open
R605	21.60	0.36	0.43	Open
R606	7.20	0.24	0.41	Open
R607	5.76	0.19	0.21	Open
R608	4.32	0.14	0.12	Open
R609	1.44	0.09	0.13	Open
R610	14.40	0.24	0.21	Open
R611	12.96	0.21	0.17	Open
R612	7.20	0.24	0.44	Open
R613	5.76	0.19	0.21	Open
R614	4.32	0.28	1.24	Open
R615	1.44	0.09	0.09	Open
R616	5.76	0.19	0.94	Open
R617	4.32	0.14	0.12	Open
R618	2.88	0.18	0.39	Open
R619	1.44	0.09	0.09	Open
R620	-6.92	0.11	0.06	Open
R621	-8.36	0.14	0.08	Open
R622	-15.56	0.26	0.24	Open
R623	24.20	0.40	0.69	Open
R624	21.32	0.35	0.42	Open
R625	1.44	0.20	0.54	Open
R627	1.44	0.20	0.54	Open
R628	7.20	0.46	5.03	Open
R629	2.88	0.18	0.86	Open
R630	4.32	0.28	0.62	Open
R631	1.44	0.20	0.54	Open
R632	1.44	0.20	0.54	Open
R633	1.44	0.09	0.09	Open
R634	1.44	0.20	0.54	Open
R635	1.44	0.09	0.09	Open
R636	2.88	0.18	0.81	Open
R637	1.44	0.09	0.09	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R638	5.76	0.37	1.14	Open
R639	4.32	0.28	0.62	Open
R640	1.44	0.09	0.09	Open
R641	1.44	0.20	0.54	Open
R642	1.44	0.20	0.54	Open
R643	1.44	0.20	0.54	Open
R644	-37.51	0.19	0.07	Open
R645	-61.99	0.32	0.19	Open
R646	-76.39	0.39	0.28	Open
R647	-82.15	0.42	0.28	Open
R648	-113.41	0.58	0.58	Open
R649	-119.17	0.61	0.64	Open
R650	-155.59	0.79	1.07	Open
R651	-165.67	0.84	1.20	Open
R652	175.75	0.90	1.35	Open
R653	184.39	0.94	1.48	Open
R654	201.67	1.03	1.76	Open
R655	1.44	0.20	0.54	Open
R656	1.44	0.20	0.54	Open
R657	2.88	0.18	0.38	Open
R658	1.44	0.20	0.54	Open
R659	1.44	0.20	0.54	Open
R660	1.44	0.20	0.54	Open
R661	1.44	0.20	0.54	Open
R662	1.44	0.20	0.54	Open
R663	1.44	0.20	0.54	Open
R664	1.44	0.20	0.54	Open
R665	1.44	0.20	0.54	Open
R666	1.44	0.20	0.54	Open
R667	1.44	0.20	0.54	Open
R668	17.28	1.11	10.21	Open
R669	15.84	1.01	6.48	Open
R670	14.40	0.92	5.44	Open
R671	2.88	0.18	0.32	Open
R672	1.44	0.09	0.09	Open
R673	11.52	0.74	3.62	Open
R674	10.08	0.65	2.84	Open
R675	8.64	0.55	2.15	Open
R676	7.20	0.46	1.55	Open
R677	5.76	0.37	1.04	Open
R678	4.32	0.28	0.62	Open
R679	2.88	0.18	0.30	Open
R680	1.44	0.09	0.09	Open
R681	1.44	0.20	0.54	Open
R682	1.44	0.20	0.54	Open
R683	8.64	0.55	8.26	Open
R684	4.32	0.28	4.75	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R685	2.88	0.18	0.30	Open
R686	1.44	0.09	0.09	Open
R687	4.32	0.28	0.62	Open
R688	2.88	0.18	0.30	Open
R689	1.44	0.09	0.09	Open
R690	1.44	0.20	0.54	Open
R691	1.44	0.20	0.54	Open
R692	8.64	0.55	2.15	Open
R693	7.20	0.46	1.55	Open
R694	5.76	0.37	1.04	Open
R695	4.32	0.28	0.62	Open
R696	1.44	0.09	0.09	Open
R697	2.88	0.18	0.37	Open
R698	1.44	0.09	0.09	Open
R699	1.44	0.20	0.54	Open
R700	1.44	0.20	0.54	Open
R701	1.44	0.20	0.54	Open
R702	1.44	0.20	0.54	Open
R703	1.44	0.20	0.54	Open
R704	10.08	0.65	7.09	Open
R705	8.64	0.55	2.49	Open
R706	8.64	0.55	2.15	Open
R707	2.88	0.18	0.32	Open
R708	1.44	0.09	0.09	Open
R709	5.76	0.37	1.04	Open
R710	4.32	0.28	0.62	Open
R711	2.88	0.18	0.38	Open
R712	1.44	0.09	0.09	Open
R713	1.44	0.20	0.54	Open
R714	1.44	0.20	0.54	Open
R715	1.44	0.20	0.54	Open
R716	1.44	0.20	0.54	Open
R626	14.40	0.47	8.59	Open
R717	2.88	0.18	0.43	Open
R718	-1.44	0.20	0.54	Open
R719	1.44	0.09	0.09	Open
R720	11.52	0.38	0.71	Open
R721	10.08	0.33	0.56	Open
R722	8.64	0.28	0.43	Open
R723	7.20	0.24	0.31	Open
R724	5.76	0.37	1.12	Open
R725	4.32	0.28	0.62	Open
R726	4.32	0.28	0.78	Open
R727	2.88	0.18	0.30	Open
R728	1.44	0.09	0.09	Open
R729	1.44	0.20	0.54	Open
R730	1.44	0.20	0.54	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R731	1.44	0.20	0.54	Open	
R732	1.44	0.20	0.54	Open	
R733	1.44	0.20	0.54	Open	
R734	1.44	0.20	0.54	Open	
R735	1.44	0.20	0.54	Open	
R736	24.48	0.80	9.70	Open	
R737	14.40	0.92	16.91	Open	
R738	12.96	0.83	4.49	Open	
R739	5.76	0.37	1.18	Open	
R740	4.32	0.28	0.62	Open	
R741	2.88	0.18	0.30	Open	
R742	1.44	0.09	0.10	Open	
R743	1.44	0.09	0.09	Open	
R744	7.20	0.46	1.55	Open	
R745	5.76	0.37	1.04	Open	
R746	4.32	0.28	0.62	Open	
R747	2.88	0.18	0.30	Open	
R748	1.44	0.09	0.09	Open	
R749	1.44	0.20	0.54	Open	
R750	1.44	0.20	0.54	Open	
R751	1.44	0.20	0.54	Open	
R752	1.44	0.20	0.54	Open	
R753	1.44	0.20	0.54	Open	
R754	1.44	0.20	0.54	Open	
R755	1.44	0.20	0.54	Open	
R756	1.44	0.20	0.54	Open	
R757	1.44	0.20	0.54	Open	
R758	1.44	0.20	0.54	Open	
R759	1.44	0.20	0.54	Open	
R760	1.44	0.20	0.54	Open	
R761	10.08	0.33	0.56	Open	
R762	8.64	0.28	0.43	Open	
R763	7.20	0.24	0.31	Open	
R764	5.76	0.37	2.24	Open	
R765	4.32	0.28	0.62	Open	
R766	2.88	0.18	0.35	Open	
R767	1.44	0.09	0.09	Open	
R768	1.44	0.09	0.09	Open	
R769	31.26	0.52	1.34	Open	
R770	29.82	0.49	0.77	Open	
R771	11.10	0.18	0.13	Open	
R772	9.66	0.16	0.10	Open	
R773	8.22	0.14	0.08	Open	
R774	6.78	0.11	0.05	Open	
R775	5.34	0.09	0.04	Open	
R776	3.90	0.06	0.02	Open	
R777	2.46	0.04	0.01	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R778	1.02	0.02	0.00	Open	
R779	-10.50	0.27	0.38	Open	
R780	-11.94	0.31	0.44	Open	
R781	-13.38	0.35	0.54	Open	
R782	-14.82	0.39	0.65	Open	
R783	-16.26	0.42	2.30	Open	
R798	34.98	0.58	1.02	Open	
R785	1.44	0.20	0.54	Open	
R786	1.44	0.20	0.54	Open	
R787	1.44	0.20	0.54	Open	
R788	1.44	0.20	0.54	Open	
R789	1.44	0.20	0.54	Open	
R790	1.44	0.20	0.54	Open	
R791	1.44	0.20	0.54	Open	
R792	1.44	0.20	0.54	Open	
R793	1.44	0.20	0.54	Open	
R794	1.44	0.20	0.54	Open	
R795	1.44	0.20	0.54	Open	
R796	1.44	0.20	0.54	Open	
R797	1.44	0.20	0.54	Open	
R799	36.42	0.60	4.19	Open	
R800	11.52	0.38	2.99	Open	
R801	10.08	0.33	0.56	Open	
R802	8.64	0.28	0.43	Open	
R803	7.20	0.46	1.77	Open	
R804	5.76	0.37	1.04	Open	
R805	4.32	0.28	0.62	Open	
R806	2.88	0.18	0.30	Open	
R807	1.44	0.09	0.09	Open	
R808	1.44	0.09	0.10	Open	
R809	1.44	0.20	0.54	Open	
R810	1.44	0.20	0.54	Open	
R811	1.44	0.20	0.54	Open	
R812	1.44	0.20	0.54	Open	
R813	1.44	0.20	0.54	Open	
R814	1.44	0.20	0.54	Open	
R784	1.44	0.20	0.54	Open	
R815	1.44	0.20	0.54	Open	
R816	1.44	0.20	0.54	Open	
R817	1.44	0.20	0.54	Open	
R818	1.44	0.20	0.54	Open	
R819	1.44	0.20	0.54	Open	
R820	1.44	0.20	0.54	Open	
R821	1.44	0.20	0.54	Open	
R822	1.44	0.20	0.54	Open	
R823	1.44	0.20	0.54	Open	
R824	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R825	18.72	0.31	0.40	Open	
R826	17.28	0.29	0.29	Open	
R827	15.84	0.26	0.24	Open	
R828	14.40	0.37	0.81	Open	
R829	12.96	0.34	0.51	Open	
R830	11.52	0.30	0.41	Open	
R831	2.88	0.18	0.68	Open	
R832	8.64	0.28	0.45	Open	
R833	1.44	0.09	0.10	Open	
R834	7.20	0.24	0.31	Open	
R835	5.76	0.19	0.21	Open	
R836	4.32	0.28	0.67	Open	
R837	2.88	0.18	0.30	Open	
R838	1.44	0.09	0.09	Open	
R839	18.72	0.49	1.10	Open	
R840	17.28	0.45	0.86	Open	
R841	15.84	0.41	0.73	Open	
R842	14.40	0.37	0.62	Open	
R843	12.96	0.34	0.51	Open	
R844	8.64	0.28	0.50	Open	
R845	7.20	0.46	1.85	Open	
R846	5.76	0.37	1.04	Open	
R847	4.32	0.28	0.62	Open	
R848	2.88	0.18	0.30	Open	
R849	1.44	0.09	0.09	Open	
R850	4.32	0.28	0.64	Open	
R851	2.88	0.18	0.30	Open	
R852	1.44	0.09	0.09	Open	
R853	1.44	0.20	0.54	Open	
R854	1.44	0.20	0.54	Open	
R855	1.44	0.20	0.54	Open	
R856	1.44	0.20	0.54	Open	
R857	1.44	0.20	0.54	Open	
R858	1.44	0.20	0.54	Open	
R859	1.44	0.20	0.54	Open	
R860	1.44	0.20	0.54	Open	
R861	1.44	0.20	0.54	Open	
R862	1.44	0.20	0.54	Open	
R863	1.44	0.20	0.54	Open	
R864	173.70	1.38	4.32	Open	
R865	11.52	0.74	10.28	Open	
R866	10.08	0.65	2.84	Open	
R867	8.64	0.55	2.15	Open	
R868	5.76	0.37	1.04	Open	
R869	2.88	0.18	0.30	Open	
R870	1.44	0.09	0.09	Open	
R871	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R872	1.44	0.20	0.54	Open	
R873	1.44	0.20	0.54	Open	
R874	1.44	0.20	0.54	Open	
R875	1.44	0.20	0.54	Open	
R876	1.44	0.20	0.54	Open	
R877	1.44	0.20	0.54	Open	
R878	162.18	1.29	3.59	Open	
R879	136.77	1.09	2.58	Open	
R880	127.62	1.02	2.26	Open	
R881	25.41	0.83	6.15	Open	
R882	5.76	0.37	1.42	Open	
R883	4.32	0.28	0.62	Open	
R884	2.88	0.18	0.30	Open	
R885	1.44	0.09	0.09	Open	
R886	1.44	0.20	0.54	Open	
R887	1.44	0.20	0.54	Open	
R888	1.44	0.20	0.54	Open	
R889	19.65	0.64	1.87	Open	
R890	18.21	0.59	1.63	Open	
R891	16.77	0.55	1.40	Open	
R896	9.15	0.30	1.40	Open	
R897	6.27	0.20	0.24	Open	
R898	4.83	0.16	0.15	Open	
R899	1.95	0.06	0.03	Open	
R900	0.51	0.02	0.00	Open	
R901	-0.93	0.03	0.01	Open	
R902	7.71	0.25	0.35	Open	
R903	77.81	0.62	0.87	Open	
R904	39.42	0.51	0.81	Open	
R905	9.18	0.12	0.05	Open	
R906	-35.46	0.28	0.20	Open	
R907	-73.49	0.58	0.78	Open	
R908	4.32	0.28	0.89	Open	
R909	1.44	0.09	0.09	Open	
R910	1.44	0.20	0.54	Open	
R911	1.44	0.20	0.54	Open	
R912	49.82	0.65	10.97	Open	
R913	48.38	0.63	1.04	Open	
R914	1.44	0.20	0.54	Open	
R915	35.42	0.46	0.59	Open	
R916	33.98	0.44	0.55	Open	
R917	32.54	0.42	0.50	Open	
R918	31.10	0.40	0.46	Open	
R919	29.66	0.39	0.43	Open	
R920	28.22	0.37	0.39	Open	
R921	26.78	0.35	0.35	Open	
R922	25.34	0.33	0.32	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R923	1.44	0.20	0.54	Open	
R924	1.44	0.20	0.54	Open	
R925	1.44	0.20	0.54	Open	
R926	1.44	0.20	0.54	Open	
R927	1.44	0.20	0.54	Open	
R928	1.44	0.20	0.54	Open	
R929	1.44	0.20	0.54	Open	
R930	38.02	0.49	2.41	Open	
R931	36.58	0.48	0.62	Open	
R932	35.14	0.46	0.58	Open	
R933	33.70	0.44	0.54	Open	
R934	32.26	0.42	0.50	Open	
R935	30.82	0.40	0.46	Open	
R936	29.38	0.38	0.42	Open	
R937	27.94	0.36	0.38	Open	
R938	26.50	0.34	0.35	Open	
R939	16.42	0.21	0.15	Open	
R940	14.98	0.19	0.12	Open	
R941	13.54	0.18	0.10	Open	
R942	12.10	0.16	0.09	Open	
R943	10.66	0.14	0.07	Open	
R944	9.22	0.12	0.05	Open	
R945	0.58	0.01	0.00	Open	
R946	-0.86	0.01	0.00	Open	
R947	-2.30	0.03	0.00	Open	
R948	-3.74	0.05	0.01	Open	
R949	-5.18	0.07	0.02	Open	
R950	-6.62	0.09	0.03	Open	
R951	-8.06	0.10	0.04	Open	
R952	-9.50	0.12	0.06	Open	
R953	-10.94	0.14	0.07	Open	
R954	1.44	0.20	0.54	Open	
R955	1.44	0.20	0.54	Open	
R956	1.44	0.20	0.54	Open	
R957	1.44	0.20	0.54	Open	
R958	1.44	0.20	0.54	Open	
R959	1.44	0.20	0.54	Open	
R960	1.44	0.20	0.54	Open	
R961	1.44	0.20	0.54	Open	
R962	1.44	0.20	0.54	Open	
R963	1.44	0.20	0.54	Open	
R964	1.44	0.20	0.54	Open	
R965	1.44	0.20	0.54	Open	
R966	1.44	0.20	0.54	Open	
R967	1.44	0.20	0.54	Open	
R968	1.44	0.20	0.54	Open	
R969	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R970	1.44	0.20	0.54	Open	
R971	1.44	0.20	0.54	Open	
R972	1.44	0.20	0.54	Open	
R973	1.44	0.20	0.54	Open	
R974	1.44	0.20	0.54	Open	
R975	1.44	0.20	0.54	Open	
R976	1.44	0.20	0.54	Open	
R977	1.44	0.20	0.54	Open	
R978	1.44	0.20	0.54	Open	
R979	1.44	0.20	0.54	Open	
R980	1.44	0.20	0.54	Open	
R981	1.44	0.20	0.54	Open	
R982	1.44	0.20	0.54	Open	
R983	1.44	0.20	0.54	Open	
R984	15.84	0.52	1.33	Open	
R985	12.96	0.83	4.79	Open	
R986	11.52	0.74	3.62	Open	
R987	10.08	0.65	2.84	Open	
R988	8.64	0.55	2.15	Open	
R989	7.20	0.46	1.55	Open	
R990	4.32	0.28	0.69	Open	
R991	2.88	0.18	0.30	Open	
R992	1.44	0.09	0.09	Open	
R993	2.88	0.18	0.30	Open	
R994	1.44	0.09	0.09	Open	
R995	1.44	0.20	0.54	Open	
R996	1.44	0.20	0.54	Open	
R997	1.44	0.20	0.54	Open	
R998	1.44	0.20	0.54	Open	
R999	1.44	0.20	0.54	Open	
R1000	1.44	0.20	0.54	Open	
R1001	1.44	0.20	0.54	Open	
R1002	1.44	0.20	0.54	Open	
R1003	1.44	0.20	0.54	Open	
R892	12.96	0.83	11.83	Open	
R893	10.08	0.65	2.84	Open	
R894	8.64	0.55	2.15	Open	
R895	5.76	0.37	1.04	Open	
R1004	4.32	0.28	0.62	Open	
R1005	2.88	0.18	0.30	Open	
R1006	1.44	0.09	0.09	Open	
R1007	1.44	0.20	0.54	Open	
R1008	1.44	0.20	0.54	Open	
R1009	1.44	0.20	0.54	Open	
R1010	1.44	0.20	0.54	Open	
R1011	1.44	0.20	0.54	Open	
R1012	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1013	1.44	0.20		0.54	Open
R1014	14.40	0.92		10.51	Open
R1015	12.96	0.83		4.49	Open
R1016	11.52	0.74		3.62	Open
R1017	10.08	0.65		2.84	Open
R1018	8.64	0.55		2.15	Open
R1019	7.20	0.46		1.55	Open
R1020	5.76	0.37		1.04	Open
R1021	4.32	0.28		0.62	Open
R1022	2.88	0.18		0.30	Open
R1023	1.44	0.09		0.09	Open
R1024	1.44	0.20		0.54	Open
R1025	1.44	0.20		0.54	Open
R1026	1.44	0.20		0.54	Open
R1027	1.44	0.20		0.54	Open
R1028	1.44	0.20		0.54	Open
R1029	1.44	0.20		0.54	Open
R1030	1.44	0.20		0.54	Open
R1031	1.44	0.20		0.54	Open
R1032	1.44	0.20		0.54	Open
R1033	1.44	0.20		0.54	Open
R1034	1.44	0.20		0.54	Open
R1035	1.44	0.20		0.54	Open
R1036	1.44	0.20		0.54	Open
R1037	1.44	0.20		0.54	Open
R1038	8.64	0.55		3.78	Open
R1039	7.20	0.46		1.55	Open
R1040	5.76	0.37		1.04	Open
R1041	4.32	0.28		0.62	Open
R1042	2.88	0.18		0.30	Open
R1043	1.44	0.09		0.09	Open
R1044	1.44	0.20		0.54	Open
R1045	1.44	0.20		0.54	Open
R1046	1.44	0.20		0.54	Open
R1047	1.44	0.20		0.54	Open
R1048	1.44	0.20		0.54	Open
R1049	1.44	0.20		0.54	Open
R1050	10.08	0.65		5.75	Open
R1051	7.20	0.46		1.55	Open
R1052	5.76	0.37		1.04	Open
R1053	4.32	0.28		0.62	Open
R1054	2.88	0.18		0.30	Open
R1055	1.44	0.09		0.09	Open
R1056	11.52	0.74		7.71	Open
R1057	10.08	0.65		2.84	Open
R1058	8.64	0.55		2.15	Open
R1059	7.20	0.46		1.55	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1060	5.76	0.37		1.04	Open
R1061	2.88	0.18		0.38	Open
R1062	1.44	0.09		0.09	Open
R1063	2.88	0.18		0.30	Open
R1064	1.44	0.09		0.09	Open
R1065	1.44	0.20		0.54	Open
R1066	1.44	0.20		0.54	Open
R1067	1.44	0.20		0.54	Open
R1068	1.44	0.20		0.54	Open
R1069	1.44	0.20		0.54	Open
R1070	1.44	0.20		0.54	Open
R1071	44.64	0.58		12.35	Open
R1072	33.12	0.43		0.52	Open
R1073	33.12	0.43		0.52	Open
R1074	21.60	0.56		1.34	Open
R1075	11.52	0.74		8.33	Open
R1076	10.08	0.65		2.84	Open
R1077	1.44	0.20		0.54	Open
R1079	5.76	0.37		1.04	Open
R1080	2.88	0.18		0.30	Open
R1082	-2.88	0.18		0.30	Open
R1083	-4.32	0.28		0.62	Open
R1084	-5.76	0.37		1.04	Open
R1085	-8.64	0.55		2.15	Open
R1086	-10.08	0.65		4.18	Open
R1088	-12.96	0.42		0.88	Open
R1089	-14.40	0.47		1.07	Open
R1090	-15.84	0.52		1.27	Open
R1091	-18.72	0.61		1.71	Open
R1092	-20.16	0.66		1.96	Open
R1093	-21.60	0.71		2.22	Open
R1095	1.44	0.09		0.09	Open
R1096	1.44	0.20		0.54	Open
R1097	1.44	0.20		0.54	Open
R1099	8.64	0.55		2.52	Open
R1100	7.20	0.46		1.55	Open
R1101	1.44	0.09		0.09	Open
R1102	5.76	0.37		1.17	Open
R1103	2.88	0.18		0.30	Open
R1104	1.44	0.09		0.09	Open
R1105	1.44	0.20		0.54	Open
R1106	1.44	0.20		0.54	Open
R1107	1.44	0.20		0.54	Open
R1108	1.44	0.20		0.54	Open
R1109	1.44	0.20		0.54	Open
R1110	1.44	0.20		0.54	Open
R1111	1.44	0.20		0.54	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1112	1.44	0.20	0.54	Open	
R1113	1.44	0.20	0.54	Open	
R1114	1.44	0.20	0.54	Open	
R1115	1.44	0.20	0.54	Open	
R1116	1.44	0.20	0.54	Open	
R1117	1.44	0.20	0.54	Open	
R1118	1.44	0.20	0.54	Open	
R1119	1.44	0.20	0.54	Open	
R1120	2.88	0.39	1.83	Open	
R1121	1.44	0.20	0.54	Open	
R1122	1.44	0.20	0.54	Open	
R1123	1.44	0.20	0.54	Open	
R1124	1.44	0.20	0.54	Open	
R1125	1.44	0.20	0.54	Open	
R1126	1.44	0.20	0.54	Open	
R1127	1.44	0.20	0.54	Open	
R1128	1.44	0.20	0.54	Open	
R1129	1.44	0.20	0.54	Open	
R1130	1.44	0.20	0.54	Open	
R1131	1.44	0.20	0.54	Open	
R1132	12.96	0.42	1.02	Open	
R1133	11.52	0.38	0.71	Open	
R1134	10.08	0.65	3.04	Open	
R1135	5.76	0.37	3.64	Open	
R1136	4.32	0.28	0.62	Open	
R1137	2.88	0.18	0.30	Open	
R1138	1.44	0.09	0.09	Open	
R1139	1.44	0.20	0.54	Open	
R1140	1.44	0.20	0.54	Open	
R1141	1.44	0.20	0.54	Open	
R1142	1.44	0.20	0.54	Open	
R1143	1.44	0.20	0.54	Open	
R1144	4.32	0.28	0.62	Open	
R1145	2.88	0.18	0.30	Open	
R1146	1.44	0.09	0.10	Open	
R1147	1.44	0.20	0.54	Open	
R1148	1.44	0.20	0.54	Open	
R1149	-21.60	0.71	2.22	Open	
R1150	23.04	0.75	2.50	Open	
R1151	24.48	0.80	2.92	Open	
R1152	1.44	0.20	0.54	Open	
R1153	1.44	0.20	0.54	Open	
R1154	1.44	0.20	0.54	Open	
R1155	1.44	0.20	0.54	Open	
R1156	1.44	0.20	0.54	Open	
R1157	1.44	0.20	0.54	Open	
R1158	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1159	1.44	0.20	0.54	Open	
R1162	11.52	0.74	3.62	Open	
R1163	10.08	0.65	2.84	Open	
R1164	2.88	0.18	0.30	Open	
R1165	1.44	0.20	0.54	Open	
R1166	30.24	0.79	17.30	Open	
R1167	2.88	0.18	0.37	Open	
R1168	1.44	0.09	0.09	Open	
R1169	27.36	0.71	1.97	Open	
R1170	7.20	0.46	2.70	Open	
R1171	5.76	0.37	1.04	Open	
R1172	4.32	0.28	0.62	Open	
R1173	2.88	0.18	0.30	Open	
R1174	1.44	0.09	0.09	Open	
R1175	1.44	0.20	0.54	Open	
R1176	1.44	0.20	0.54	Open	
R1177	1.44	0.20	0.54	Open	
R1178	1.44	0.20	0.54	Open	
R1179	20.16	0.52	1.13	Open	
R1180	7.20	0.46	1.96	Open	
R1181	5.76	0.37	1.04	Open	
R1182	4.32	0.28	0.62	Open	
R1183	2.88	0.18	0.30	Open	
R1184	1.44	0.09	0.09	Open	
R1185	1.44	0.20	0.54	Open	
R1186	1.44	0.20	0.54	Open	
R1187	1.44	0.20	0.54	Open	
R1188	1.44	0.20	0.54	Open	
R1189	12.96	0.42	1.63	Open	
R1190	11.52	0.38	0.71	Open	
R1191	10.08	0.33	0.56	Open	
R1192	4.32	0.28	0.79	Open	
R1193	2.88	0.18	0.30	Open	
R1194	1.44	0.09	0.09	Open	
R1195	5.76	0.37	2.49	Open	
R1196	4.32	0.28	0.62	Open	
R1197	2.88	0.18	0.30	Open	
R1198	1.44	0.09	0.09	Open	
R1199	1.44	0.20	0.54	Open	
R1200	1.44	0.20	0.54	Open	
R1201	1.44	0.20	0.54	Open	
R1202	1.44	0.20	0.54	Open	
R1203	1.44	0.20	0.54	Open	
R1204	1.44	0.20	0.54	Open	
R1205	1.44	0.20	0.54	Open	
R1206	1.44	0.20	0.54	Open	
R1207	0.00	0.00	0.00	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1208	1.44	0.20	0.54	Open
R1209	1.44	0.20	0.54	Open
R1210	1.44	0.20	0.54	Open
R1211	1.44	0.20	0.54	Open
R1212	1.44	0.20	0.54	Open
R1213	1.44	0.20	0.54	Open
R1214	1.44	0.20	0.54	Open
R1215	1.44	0.20	0.54	Open
R1216	1.44	0.20	0.54	Open
R1217	1.44	0.20	0.54	Open
R1218	5.76	0.37	2.87	Open
R1219	2.88	0.18	0.30	Open
R1220	1.44	0.09	0.09	Open
R1221	1.44	0.20	0.54	Open
R1222	2.88	0.18	0.39	Open
R1223	1.44	0.20	0.54	Open
R1224	1.44	0.20	0.54	Open
R1225	5.76	0.37	5.66	Open
R1226	4.32	0.28	0.62	Open
R1227	2.88	0.18	0.30	Open
R1228	1.44	0.09	0.09	Open
R1229	1.44	0.09	0.17	Open
R1230	1.44	0.20	0.54	Open
R1231	1.44	0.20	0.54	Open
R1	1.44	0.20	0.54	Open
R2	1.44	0.20	0.54	Open
R1232	1.44	0.20	0.54	Open
R1233	1.44	0.20	0.54	Open
R430	21.60	0.28	0.24	Open
R1234	5.76	0.37	1.04	Open
R1235	4.32	0.28	0.65	Open
R1236	12.96	0.83	4.49	Open
R1237	1.44	0.19	0.49	Open
R1238	1.44	0.09	0.09	Open
R3187	11.52	0.38	0.71	Open
R1239	1.44	0.20	0.54	Open
R1240	8.64	0.55	2.15	Open
R1241	8.64	0.55	2.15	Open
R1078	181.93	0.64	0.58	Open
R1081	142.52	1.13	4.52	Open
P1	0.00	0.00	0.00	Closed Pump
P2	150.24	0.00	-79.91	Open Pump
P3	150.24	0.00	-79.91	Open Pump
P4	150.24	0.00	-79.91	Open Pump
P5	150.24	0.00	-79.91	Open Pump
P6	150.24	0.00	-79.91	Open Pump
P7	150.24	0.00	-79.91	Open Pump

2.4 IPOTESI DI FUNZIONAMENTO B

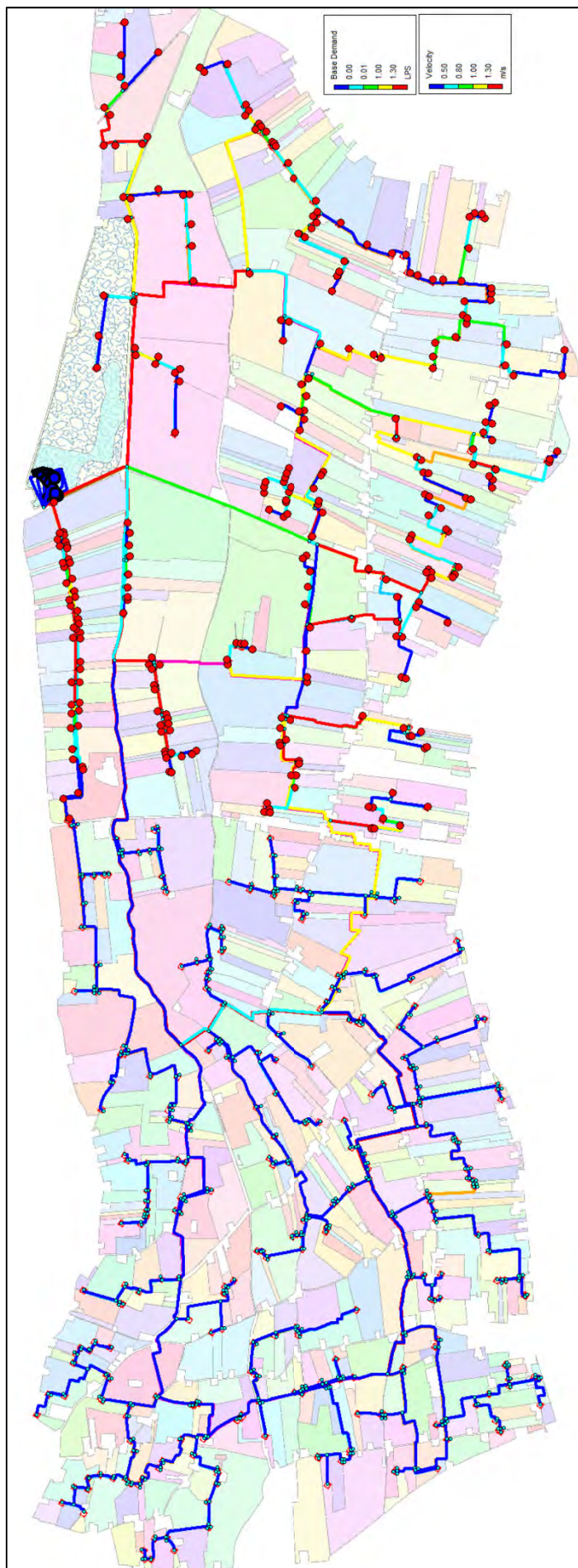


Figura 17 – Risultati della simulazione : base demand nei nodi e velocità nei rami



Figura 18 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE VILLA PRATI IPOTESI FUNZIONAMENTO B

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
G20	Z1	Z2	30	600
G1	Z2	Z3	577.2	600
R3	Z2	Z4	18.5	400
R4	Z4	Z5	213.4	400
R5	Z5	Z6	18.6	400
R6	Z6	Z7	50	400
R7	Z7	Z8	32.8	400
R8	Z8	Z9	10	400
R9	Z9	Z10	77.7	400
R10	Z10	Z11	27.2	400
R11	Z11	Z12	113.0	400
R12	Z12	Z13	80.80	400
R13	Z13	Z14	39.50	400
R14	Z14	Z15	100.7	400
R15	Z15	Z16	53.2	400
R16	Z16	Z17	37.1	400
R17	Z17	Z29	27.4	400
R18	Z29	Z18	29.8	400
R19	Z18	Z19	37.40	400
R20	Z19	Z20	161.3	400
R21	Z20	Z21	49.5	400
R22	Z21	Z22	92.5	400
R23	Z22	Z23	139.4	400
R24	Z23	Z24	56.4	400
R25	Z24	Z25	103.7	400
R26	Z25	Z26	297.1	400
R27	Z26	Z27	13	400
R28	Z27	Z28	449.3	400
R56	Z4	Z56	5	96.8
R57	Z5	Z57	5	96.8
R58	Z6	Z58	5	96.8
R59	Z7	Z59	5	96.8
R60	Z8	Z60	5	96.8
R61	Z9	Z61	5	96.8
R62	Z10	Z62	5	96.8
R63	Z11	Z63	5	96.8
R64	Z12	Z64	5	98.6

Link ID	Start Node	End Node	Length m	Diameter mm
R65	Z13	Z65	5	96.8
R66	Z14	Z66	5	96.8
R67	Z15	Z67	5	96.8
R68	Z16	Z68	5	96.8
R69	Z17	Z69	5	96.8
R29	Z29	Z72	9	141
R71	Z18	Z70	5	96.8
R72	Z19	Z71	5	96.8
R73	Z20	Z73	5	96.8
R74	Z21	Z74	5	96.8
R75	Z22	Z75	5	96.8
R76	Z23	Z76	5	96.8
R77	Z24	Z77	5	96.8
R78	Z25	Z78	5	96.8
R79	Z26	Z79	5	96.8
R80	Z27	Z80	5	96.8
R81	Z28	Z81	5	96.8
R30	Z72	Z82	9.7	141
R31	Z82	Z83	159.2	141.0
R32	Z83	Z84	38.2	141.0
R33	Z84	Z85	117.3	141.0
R34	Z85	Z86	113.7	141.0
R35	Z86	Z87	27.4	141.0
R36	Z87	Z88	117.2	141.0
R37	Z88	Z89	50.80	141.0
R38	Z89	Z90	35.05	141.0
R91	Z82	Z91	5	96.8
R92	Z83	Z92	5	96.8
R93	Z84	Z93	5	96.8
R94	Z85	Z94	5	96.8
R95	Z86	Z95	5	96.8
R96	Z87	Z96	5	96.8
R97	Z88	Z97	5	96.8
R98	Z89	Z98	5	96.8
R39	Z72	Z99	60.2	141.0
R40	Z99	Z100	309.8	141.0
R41	Z100	Z101	151.6	141.0
R42	Z101	Z102	575	141.0
R43	Z102	Z103	103.5	141.0
R44	Z103	Z104	144.7	141.0
R45	Z104	Z105	66.4	141.0
R46	Z105	Z106	256.8	141.0
R47	Z106	Z107	110.74	141.0
R107	Z106	Z108	5	96.8
R108	Z105	Z109	5	96.8
R109	Z104	Z110	5	96.8
R110	Z103	Z111	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R111	Z102	Z112	5	96.8
R112	Z101	Z113	5	96.8
R113	Z100	Z114	5	96.8
R114	Z99	Z115	5	96.8
R49	Z28	Z116	80	400
R50	Z116	Z117	380.3	400
R51	Z117	Z118	195.4	400
R52	Z118	Z119	163.7	400
R53	Z119	Z120	336.9	400
R54	Z120	Z121	169.6	400
R55	Z117	Z122	16.1	141.0
R120	Z122	Z123	84.1	141.0
R121	Z123	Z124	71.9	141.0
R122	Z122	Z125	15.04	96.8
R123	Z123	Z126	13.85	96.8
R124	Z107	Z127	5	96.8
R125	Z128	Z124	5	96.8
R126	Z124	Z129	26	141.0
R127	Z129	Z130	5	96.8
R82	Z30	Z31	61.5	400
R83	Z31	Z32	13.8	400
R84	Z121	Z30	623	400
R85	Z32	Z33	322.7	400
R86	Z33	Z34	261.2	400
R87	Z34	Z35	231.7	400
R88	Z35	Z36	34.2	400
R89	Z36	Z37	49.8	400
R90	Z37	Z38	11	400
R99	Z38	Z39	127.3	400
R100	Z39	Z40	3.8	400
R101	Z31	Z43	14.3	141.0
R102	Z43	Z45	243.6	141.0
R103	Z45	Z48	218.5	141.0
R104	Z45	Z46	5	96.8
R105	Z43	Z44	5	96.8
R106	Z30	Z42	5	96.8
R115	Z118	Z49	5	96.8
R116	Z119	Z50	5	141
R117	Z120	Z51	5	96.8
R118	Z121	Z52	12.1	141.0
R119	Z52	Z53	5.5	141.0
R128	Z53	Z54	140.8	141.0
R129	Z53	Z131	5	96.8
R130	Z53	Z55	5	96.8
G131	Z3	Z132	618	600
R131	Z132	Z133	4	141.0
R132	Z133	Z134	19.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R133	Z134	Z135	81.5	141.0
R134	Z135	Z136	81.4	141.0
R135	Z136	Z137	75	141.0
R136	Z133	Z138	98.5	141.0
R137	Z138	Z139	90.2	141.0
R138	Z139	Z140	70	141.0
R139	Z140	Z141	15.2	141.0
R140	Z141	Z142	97	141.0
R141	Z141	Z157	5	96.8
R142	Z140	Z158	5	96.8
R143	Z139	Z159	5	96.8
R144	Z138	Z160	5	96.8
R145	Z134	Z161	5	96.8
R146	Z135	Z162	5	96.8
R147	Z136	Z163	5	96.8
G148	Z132	Z143	701.3	600
G149	Z143	Z147	1433.79	600
R149	Z147	Z145	5.8	141.0
R150	Z145	Z148	5.7	141.0
R151	Z148	Z149	120	141.0
R152	Z149	Z150	76.8	141.0
R153	Z150	Z151	47.6	141.0
R154	Z151	Z152	12.7	141.0
R155	Z152	Z153	131	141.0
R156	Z151	Z154	189.1	141.0
R157	Z154	Z155	78.3	141.0
R158	Z155	Z156	31	141.0
R159	Z145	Z146	17.77	141.0
R160	Z146	Z144	90.77	141.0
R161	Z146	Z166	5	96.8
R162	Z148	Z167	5	96.8
R163	Z149	Z168	5	96.8
R164	Z150	Z169	5	96.8
R165	Z152	Z170	5	96.8
R166	Z153	Z171	5	96.8
R167	Z153	Z172	5	96.8
R168	Z154	Z173	5	96.8
R169	Z155	Z174	5	96.8
G170	Z147	Z175	1472.3	600
G171	Z175	Z176	219.9	400
G172	Z176	Z177	220.58	400
R172	Z177	Z178	10.81	197.4
R173	Z178	Z179	171.80	197.4
R174	Z179	Z180	60	197.4
R175	Z180	Z181	50	197.4
R176	Z181	Z182	13.6	197.4
R177	Z182	Z183	82.8	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R178	Z183	Z184	11.4	141.0
R179	Z184	Z185	89.8	141.0
R180	Z185	Z186	109.2	141.0
R181	Z183	Z187	223.6	141.0
R182	Z187	Z188	94.3	141.0
R183	Z188	Z189	22.2	141.0
R184	Z189	Z190	15.82	141.0
R185	Z188	Z191	32.5	141.0
R186	Z191	Z192	87	141.0
R187	Z192	Z193	10.5	141.0
R188	Z178	Z194	17.19	96.8
R189	Z179	Z195	5	96.8
R190	Z180	Z196	5	96.8
R191	Z181	Z197	5	96.8
R192	Z182	Z198	5	96.8
R193	Z184	Z199	5	96.8
R194	Z185	Z200	5	96.8
R195	Z187	Z201	5	96.8
R196	Z189	Z202	5	96.8
R197	Z191	Z203	5	96.8
R198	Z192	Z204	5	96.8
G199	Z177	Z205	379.4	400
G200	Z205	Z206	385	400
G201	Z206	Z207	302.8	500
G202	Z207	Z208	873.57	500
G203	Z208	Z209	159.2	500
R200	Z207	Z210	2.6	141.0
R201	Z210	Z211	5.7	141.0
R202	Z211	Z212	52.01	141.0
R203	Z212	Z213	6.8	141.0
R204	Z210	Z214	4	141.0
R205	Z214	Z215	47.3	141.0
R206	Z212	Z216	5	96.8
R207	Z211	Z217	5	96.8
R208	Z214	Z218	21.86	96.8
R209	Z208	Z219	3.7	197.4
R210	Z219	Z220	46.2	197.4
R211	Z220	Z221	22.1	197.4
R212	Z221	Z222	4	197.4
R213	Z222	Z223	83.2	197.4
R214	Z223	Z224	144.3	197.4
R215	Z224	Z225	18.9	197.4
R216	Z225	Z226	77.3	197.4
R217	Z226	Z227	137.1	197.4
R218	Z227	Z231	104.6	141.0
R219	Z231	Z232	344.4	141.0
R220	Z232	Z233	51.3	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R221	Z227	Z228	228.1	141.0
R222	Z228	Z229	98.5	141.0
R223	Z229	Z230	78.6	141.0
R224	Z221	Z234	539.7	141.0
R225	Z234	Z235	26	141.0
R226	Z235	Z236	70.4	141.0
R48	Z143	Z164	271.5	197.4
R70	Z164	Z41	3	197.4
R148	Z41	Z253	23	197.4
R170	Z47	Z237	119.4	197.4
R171	Z237	Z238	16.2	141
R199	Z238	Z239	153.6	141
R227	Z239	Z240	32.5	141
R228	Z240	Z241	33.8	141
R229	Z241	Z242	34.3	141
R230	Z242	Z243	45.9	141
R231	Z243	Z244	131.1	141
R232	Z244	Z245	20.3	141
R233	Z245	Z246	16.4	141
R234	Z246	Z268	18.2	141.0
R235	Z247	Z248	70.4	141.0
R236	Z248	Z249	37.8	141.0
R237	Z246	Z250	3	141.0
R238	Z250	Z251	103	141.0
R239	Z41	Z252	5	96.8
R240	Z253	Z47	27.7	197.4
R241	Z253	Z254	5	96.8
R242	Z253	Z255	5	141.0
R243	Z47	Z256	5	96.8
R244	Z237	Z257	5	96.8
R245	Z238	Z258	5	96.8
R246	Z239	Z259	5	96.8
R247	Z240	Z260	5	96.8
R248	Z241	Z261	5	96.8
R249	Z242	Z262	5	96.8
R250	Z242	Z263	5	96.8
R251	Z243	Z265	5	96.8
R252	Z243	Z264	5	96.8
R253	Z244	Z266	5	96.8
R254	Z245	Z267	5	96.8
R255	Z268	Z247	70.4	141.0
R256	Z268	Z271	5	96.8
R257	Z247	Z270	5	96.8
R258	Z248	Z269	5	96.8
R259	Z250	Z272	5	96.8
R260	Z251	Z273	5	96.8
R261	Z251	Z274	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R263	Z165	Z275	8	141.0
R264	Z275	Z276	6	141.0
R265	Z276	Z277	136.6	141.0
R266	Z277	Z278	40	141.0
R267	Z278	Z279	14.2	141.0
R268	Z279	Z280	67.4	141.0
R269	Z165	Z281	589.9	141
R270	Z281	Z282	7.7	141.0
R271	Z281	Z291	382.8	400
R272	Z284	Z286	145.2	141.0
R273	Z286	Z287	120.5	141.0
R274	Z287	Z288	116.4	141.0
R275	Z288	Z289	133.1	141.0
R276	Z289	Z290	17.6	141.0
R277	Z291	Z284	7	141
R278	Z284	Z283	184.7	141.0
R279	Z284	Z285	5	141
R280	Z285	Z1245	300	141
R281	Z291	Z293	557.27	400
R282	Z275	Z295	5	96.8
R283	Z276	Z296	5	96.8
R284	Z277	Z297	5	96.8
R285	Z278	Z298	5	96.8
R286	Z279	Z299	5	96.8
R287	Z282	Z300	5	96.8
R288	Z282	Z301	5	96.8
R289	Z285	Z302	5	96.8
R290	Z286	Z306	5	96.8
R291	Z287	Z305	5	96.8
R292	Z288	Z304	5	96.8
R293	Z289	Z303	5	96.8
R294	Z281	Z294	325.5	400
R295	Z294	Z307	2.8	197.4
R296	Z307	Z308	593.6	141
R297	Z308	Z321	5	96.8
R298	Z308	Z309	338	141.0
R299	Z309	Z310	7.5	141.0
R300	Z310	Z311	59.00	141.0
R301	Z311	Z313	44.3	141.0
R302	Z313	Z314	9.8	141.0
R303	Z314	Z316	70	141.0
R304	Z311	Z317	419.9	141.0
R305	Z317	Z318	5	96.8
R306	Z317	Z319	8.4	141.0
R307	Z314	Z315	5	96.8
R308	Z313	Z312	5	96.8
R309	Z310	Z320	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R310	Z294	Z322	1122.7	400
R311	Z307	Z323	9	197.4
R312	Z323	Z324	94	197.4
R313	Z324	Z325	81	141
R314	Z325	Z326	21.8	141
R315	Z326	Z327	11.5	141
R316	Z327	Z328	204.3	141.0
R317	Z328	Z329	7.8	141.0
R318	Z329	Z330	96	141.0
R319	Z330	Z331	86	141.0
R320	Z331	Z332	292.5	141.0
R321	Z332	Z333	5.6	141.0
R322	Z333	Z334	38	141.0
R323	Z323	Z336	5	96.8
R324	Z323	Z335	5	96.8
R325	Z324	Z337	5	96.8
R326	Z325	Z338	5	96.8
R327	Z326	Z339	5	96.8
R328	Z327	Z340	5	96.8
R329	Z328	Z341	5	96.8
R330	Z329	Z342	5	96.8
R331	Z330	Z343	5	96.8
R332	Z330	Z344	5	96.8
R333	Z331	Z345	5	96.8
R334	Z332	Z346	5	96.8
R335	Z333	Z347	5	96.8
R336	Z334	Z349	5	96.8
R337	Z334	Z348	5	96.8
R338	Z322	Z350	290	141.0
R339	Z351	Z352	246.5	141.0
R340	Z352	Z353	126.3	141.0
R341	Z353	Z354	167	141.0
R342	Z354	Z355	207	141.0
R343	Z355	Z356	57.1	141.0
R344	Z355	Z357	257.4	141.0
R345	Z354	Z363	5	96.8
R346	Z354	Z362	5	96.8
R347	Z353	Z361	5	96.8
R348	Z352	Z360	5	96.8
R349	Z351	Z359	5	96.8
R350	Z350	Z358	5	96.8
R351	Z350	Z351	8.8	141.0
R352	Z322	Z364	835.5	400
R353	Z364	Z365	825.7	400
R354	Z206	Z365	302.8	400
R355	Z364	Z366	5	141.0
R356	Z366	Z367	142.5	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R357	Z367	Z368	297.05	141.0
R358	Z366	Z388	5	96.8
R359	Z367	Z387	5	96.8
R360	Z367	Z386	5	96.8
R361	Z364	Z369	22.8	197.4
R362	Z369	Z389	48	197.4
R363	Z389	Z370	386	197.4
R364	Z370	Z371	8.8	141.0
R365	Z371	Z372	174.8	141.0
R366	Z372	Z373	135.5	141.0
R367	Z373	Z374	42.4	141.0
R368	Z389	Z390	127	141.0
R369	Z370	Z375	62.3	141.0
R370	Z375	Z376	2	141.0
R371	Z376	Z377	155.7	141.0
R372	Z377	Z378	9.8	141.0
R373	Z378	Z379	82	141.0
R374	Z379	Z380	143.1	141.0
R375	Z380	Z381	124.5	141.0
R376	Z378	Z382	30.6	141.0
R377	Z382	Z383	9.4	141.0
R378	Z383	Z384	166.7	141.0
R379	Z384	Z385	152.4	141.0
R380	Z369	Z391	5	96.8
R381	Z373	Z394	5	96.8
R382	Z372	Z393	5	96.8
R383	Z371	Z392	5	96.8
R384	Z375	Z395	5	96.8
R385	Z376	Z396	5	96.8
R386	Z377	Z397	5	96.8
R387	Z379	Z398	5	96.8
R388	Z380	Z399	5	96.8
R389	Z365	Z401	5	141.0
R390	Z401	Z400	5.2	141.0
R391	Z400	Z402	148.3	141.0
R392	Z402	Z403	95	141.0
R393	Z403	Z404	337.6	141.0
R394	Z404	Z405	442	141.0
R395	Z405	Z406	61.5	141.0
R396	Z400	Z407	5	96.8
R397	Z402	Z408	5	96.8
R398	Z403	Z409	5	96.8
R399	Z404	Z410	5	96.8
R400	Z405	Z411	20.84	141.0
R401	Z401	Z412	19.3	141.0
R402	Z412	Z417	5	96.8
R403	Z412	Z416	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R404	Z412	Z413	94.8	141.0
R405	Z413	Z418	5	96.8
R406	Z413	Z420	5	96.8
R407	Z413	Z414	105.6	141.0
R408	Z414	Z419	5	96.8
R409	Z414	Z415	70.3	141.0
R410	Z219	Z421	138.2	141.0
R411	Z421	Z422	10.7	141.0
R412	Z422	Z423	160	141.0
R413	Z423	Z424	104.3	141.0
R414	Z423	Z425	5	96.8
R415	Z422	Z426	5	96.8
R416	Z421	Z427	5	96.8
R417	Z235	Z428	5	96.8
R418	Z234	Z429	5	96.8
R419	Z220	Z430	5	96.8
R420	Z229	Z437	5	96.8
R421	Z228	Z436	5	96.8
R422	Z226	Z435	5	96.8
R423	Z225	Z434	5	96.8
R424	Z224	Z433	5	96.8
R425	Z223	Z432	5	96.8
R426	Z222	Z431	5	96.8
R427	Z231	Z438	5	96.8
R428	Z232	Z439	5	96.8
G429	Z209	Z467	480.3	500
G430	Z467	Z466	238.5	500
G431	Z466	Z463	303.93	500
R429	Z463	Z462	15.40	312.8
R431	Z461	Z459	16.8	141
R433	Z457	Z455	13.8	141
R434	Z455	Z453	24.7	141
R435	Z453	Z451	38.3	141
R436	Z451	Z448	66.8	141
R437	Z448	Z446	328	197.4
R438	Z446	Z444	24	197.4
R439	Z444	Z442	11.9	197.4
R440	Z442	Z440	319.2	197.4
R441	Z440	Z209	64.8	197.4
R442	Z462	Z465	5	96.8
R443	Z462	Z464	5	96.8
R444	Z459	Z460	5	96.8
R445	Z440	Z441	5	96.8
R446	Z442	Z443	5	96.8
R447	Z444	Z445	5	96.8
R448	Z446	Z447	5	96.8
R449	Z448	Z450	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R450	Z448	Z449	5	96.8
R451	Z451	Z452	5	96.8
R452	Z453	Z454	5	96.8
R453	Z455	Z456	5	96.8
R454	Z457	Z458	5	96.8
R455	Z467	Z468	4.4	141.0
R456	Z468	Z469	33.2	141.0
R457	Z469	Z471	5	96.8
R458	Z469	Z470	214	141.0
R459	Z468	Z472	84.7	141.0
R460	Z472	Z474	64.9	141.0
R461	Z474	Z476	34.5	141.0
R462	Z472	Z473	5	96.8
R463	Z474	Z475	5	96.8
R464	Z205	Z481	2	141.0
R465	Z481	Z477	186	141.0
R466	Z477	Z479	322.7	141.0
R467	Z481	Z480	5	96.8
R468	Z477	Z478	5	96.8
R469	Z461	Z482	4.8	277.6
R470	Z482	Z483	38.1	277.6
R471	Z483	Z484	70.8	277.6
R472	Z484	Z485	58.5	277.6
R473	Z482	Z497	5	96.8
R474	Z483	Z498	5	96.8
R475	Z484	Z499	5	96.8
R476	Z485	Z500	5	96.8
R477	Z485	Z486	401.1	277.6
R478	Z486	Z487	194.6	221.2
R479	Z487	Z488	12.6	221.2
R480	Z486	Z501	5	96.8
R481	Z487	Z502	5	96.8
R482	Z488	Z490	391.7	197.4
R483	Z490	Z489	3.1	197.4
R484	Z489	Z493	9	141.0
R485	Z493	Z494	92.8	141.0
R486	Z494	Z495	28.8	141.0
R487	Z495	Z496	32.16	141.0
R488	Z489	Z491	152.9	141.0
R489	Z490	Z504	5	96.8
R490	Z491	Z503	5	96.8
R491	Z491	Z492	5.7	141.0
R492	Z495	Z505	5	96.8
R493	Z494	Z506	5	96.8
R494	Z493	Z507	5	96.8
R495	Z493	Z508	5	96.8
R496	Z176	Z561	105.5	221.2

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R497	Z561	Z562	5.4	141.0
R498	Z562	Z565	5.4	141.0
R499	Z565	Z564	99.3	141.0
R500	Z565	Z563	5	96.8
R501	Z575	Z566	5	96.8
R502	Z562	Z575	10.2	141.0
R503	Z575	Z567	119	141.0
R504	Z567	Z569	38.1	141.0
R505	Z567	Z568	5	96.8
R506	Z569	Z570	5	96.8
R507	Z569	Z518	223.4	141.0
R508	Z518	Z519	62.7	141.0
R509	Z518	Z571	5	96.8
R510	Z519	Z520	144.1	141.0
R511	Z519	Z521	236.5	141.0
R512	Z521	Z522	320.1	141.0
R513	Z522	Z523	11.7	141.0
R514	Z523	Z524	121	141.0
R515	Z523	Z574	5	96.8
R516	Z522	Z573	5	96.8
R517	Z521	Z572	5	96.8
R518	Z561	Z516	549.46	221.2
R519	Z516	Z515	239.7	221.2
R520	Z515	Z514	190.8	221.2
R521	Z516	Z560	5	96.8
R522	Z515	Z559	5	96.8
R523	Z514	Z554	7.1	141.0
R524	Z554	Z556	117.8	141.0
R525	Z556	Z558	55.2	141.0
R526	Z554	Z555	5	96.8
R527	Z556	Z557	5	96.8
R528	Z514	Z513	525.6	221.2
R529	Z466	Z525	5.6	221.2
R530	Z525	Z509	120.7	221.2
R531	Z509	Z510	36.1	221.2
R532	Z510	Z511	117.2	221.2
R533	Z511	Z512	29.4	221.2
R534	Z512	Z513	230.4	221.2
R535	Z512	Z530	5	96.8
R536	Z511	Z529	5	96.8
R537	Z510	Z528	5	96.8
R538	Z509	Z527	5	96.8
R539	Z525	Z526	5	96.8
R540	Z513	Z531	4.4	197.4
R541	Z531	Z532	200.5	141.0
R542	Z532	Z576	1.2	141.0
R543	Z576	Z535	28	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R544	Z532	Z533	5	96.8
R545	Z576	Z534	5	96.8
R546	Z531	Z536	8.8	197.4
R547	Z536	Z539	22.2	197.4
R548	Z539	Z540	106.8	197.4
R549	Z540	Z541	9.8	141.0
R550	Z541	Z543	31.7	141.0
R551	Z543	Z546	24.5	141.0
R552	Z536	Z537	5	96.8
R553	Z539	Z538	5	96.8
R554	Z541	Z542	5	96.8
R555	Z543	Z544	5	96.8
R556	Z546	Z545	5	96.8
R557	Z540	Z547	94.1	141
R558	Z547	Z549	252.2	141
R559	Z549	Z551	48.1	141
R560	Z551	Z552	45.1	141.0
R561	Z551	Z553	5	96.8
R562	Z549	Z550	5	96.8
R563	Z547	Z548	5	96.8
R564	Z175	Z40	647	500
G565	Z463	Z577	463.2	500
R565	Z577	Z578	13	141
R566	Z578	Z579	81.4	141
R567	Z579	Z580	104.3	141
R568	Z580	Z581	128	141
R569	Z580	Z588	92.4	141
R570	Z588	Z590	17	141.0
R571	Z590	Z592	45.3	141.0
R572	Z578	Z583	5.3	141
R573	Z583	Z585	14.5	141.0
R574	Z585	Z587	5	96.8
R575	Z585	Z586	5	96.8
R576	Z583	Z584	5	96.8
R577	Z590	Z591	5	96.8
R578	Z588	Z589	5	96.8
R579	Z579	Z582	21.6	141.0
G580	Z577	Z593	400	500
G581	Z593	Z595	355.4	500
R580	Z594	Z597	5	96.8
R581	Z596	Z598	5	96.8
R582	Z602	Z603	5	96.8
R583	Z605	Z606	5	96.8
R584	Z609	Z610	5	96.8
R585	Z611	Z612	5	96.8
R586	Z613	Z614	5	96.8
R587	Z615	Z616	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R588	Z615	Z617	5	96.8
R589	Z620	Z621	5	96.8
R590	Z622	Z623	5	96.8
R591	Z624	Z625	5	96.8
R592	Z626	Z628	5	96.8
R593	Z626	Z629	5	96.8
R594	Z631	Z632	5	96.8
R595	Z633	Z634	5	96.8
R596	Z593	Z594	5.4	277.6
R597	Z594	Z596	313.3	277.6
R598	Z596	Z599	49.3	277.6
R599	Z599	Z600	18.9	141.0
R600	Z599	Z601	504	277.6
R601	Z601	Z604	24.9	277.6
R602	Z604	Z605	21.3	141.0
R603	Z605	Z607	41.7	141.0
R604	Z601	Z602	5	277.6
R605	Z602	Z608	336.4	277.6
R606	Z608	Z609	50.5	197.4
R607	Z609	Z613	245	197.4
R608	Z613	Z615	80.4	197.4
R609	Z615	Z618	17.5	141.0
R610	Z608	Z611	101	277.6
R611	Z611	Z619	191.3	277.6
R612	Z619	Z622	37.8	197.4
R613	Z622	Z624	85.9	197.4
R614	Z624	Z626	11.4	141
R615	Z626	Z627	7.4	141.0
R616	Z619	Z620	4.4	197.4
R617	Z620	Z633	185.8	197.4
R618	Z633	Z631	35.8	141
R619	Z631	Z630	345.2	141
R620	Z604	Z517	116.7	277.6
R621	Z517	Z635	436.7	277.6
R622	Z635	Z636	497.7	277.6
R623	Z595	Z637	90.6	277.6
R624	Z637	Z636	301.5	277.6
R625	Z639	Z639	5	96.8
R627	Z517	Z640	5	96.8
R628	Z635	Z641	5.6	141
R629	Z641	Z642	5.6	141.0
R630	Z641	Z643	140.3	141
R631	Z643	Z645	5	96.8
R632	Z643	Z646	5	96.8
R633	Z643	Z644	12.3	141.0
R634	Z642	Z648	5	96.8
R635	Z642	Z647	182.6	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R636	Z637	Z649	6.1	141.0
R637	Z649	Z638	37	141.0
R638	Z636	Z650	125.1	141.0
R639	Z650	Z651	13.8	141.0
R640	Z651	Z655	167.2	141.0
R641	Z650	Z652	5	96.8
R642	Z651	Z653	5	96.8
R643	Z651	Z654	5	96.8
R644	Z595	Z656	440.3	500
R645	Z656	Z657	506.6	500
R646	Z657	Z658	191.7	500
R647	Z658	Z659	278.4	500
R648	Z659	Z660	355.9	500
R649	Z660	Z661	279	500
R650	Z661	Z662	669.8	500
R651	Z662	Z663	282.5	500
R652	Z664	Z663	606.5	500
R653	Z665	Z664	503.8	500
R654	Z40	Z665	241.2	500
R655	Z666	Z667	5	96.8
R656	Z666	Z668	5	96.8
R657	Z39	Z666	41	141.0
R658	Z674	Z676	5	96.8
R659	Z672	Z677	5	96.8
R660	Z669	Z679	5	96.8
R661	Z670	Z678	5	96.8
R662	Z673	Z680	5	96.8
R663	Z681	Z687	5	96.8
R664	Z682	Z688	5	96.8
R665	Z683	Z689	5	96.8
R666	Z684	Z690	5	96.8
R667	Z685	Z691	5	96.8
R668	Z665	Z669	43	141
R669	Z669	Z670	54.4	141
R670	Z670	Z671	212.7	141
R671	Z671	Z674	171.4	141.0
R672	Z674	Z675	43.7	141.0
R673	Z671	Z672	10.8	141.0
R674	Z672	Z673	189.3	141.0
R675	Z673	Z681	75.6	141.0
R676	Z681	Z682	55.7	141.0
R677	Z682	Z683	36.8	141.0
R678	Z683	Z684	13	141.0
R679	Z684	Z685	70.7	141.0
R680	Z685	Z686	130.9	141.0
R681	Z695	Z696	5	96.8
R682	Z693	Z694	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R683	Z664	Z692	4.6	141.0
R684	Z692	Z693	1.7	141.0
R685	Z693	Z695	85	141.0
R686	Z695	Z697	19.5	141.0
R687	Z692	Z698	3.9	141.0
R688	Z698	Z702	168.3	141.0
R689	Z702	Z700	40.2	141.0
R690	Z702	Z701	5	96.8
R691	Z698	Z699	5	96.8
R692	Z703	Z704	125.6	141.0
R693	Z704	Z705	233.7	141.0
R694	Z705	Z706	108.5	141.0
R695	Z706	Z709	123.5	141.0
R696	Z709	Z710	232.8	141.0
R697	Z709	Z707	43.5	141.0
R698	Z707	Z708	12.8	141.0
R699	Z703	Z711	5	96.8
R700	Z704	Z712	5	96.8
R701	Z705	Z713	5	96.8
R702	Z706	Z714	5	96.8
R703	Z707	Z715	5	96.8
R704	Z663	Z703	9	141.0
R705	Z662	Z716	82.3	141
R706	Z716	Z717	318.1	141
R707	Z717	Z718	192.7	141.0
R708	Z718	Z719	68.9	141.0
R709	Z717	Z720	94.5	141
R710	Z720	Z721	13.7	141
R711	Z721	Z722	40.2	141.0
R712	Z722	Z723	84.7	141.0
R713	Z722	Z724	5	96.8
R714	Z721	Z725	5	96.8
R715	Z720	Z726	5	96.8
R716	Z718	Z727	5	96.8
R626	Z657	Z728	2.7	197.4
R717	Z728	Z729	23.9	141.0
R718	Z730	Z729	5	96.8
R719	Z729	Z731	235	141.0
R720	Z728	Z732	187.7	197.4
R721	Z732	Z734	65.9	197.4
R722	Z734	Z736	200.9	197.4
R723	Z736	Z738	161	197.4
R724	Z738	Z740	160.5	141
R725	Z740	Z742	13.1	141
R726	Z742	Z743	45.4	141
R727	Z743	Z744	9.4	141
R728	Z744	Z747	466	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R729	Z744	Z746	5	96.8
R730	Z743	Z745	5	96.8
R731	Z740	Z741	5	96.8
R732	Z738	Z739	5	96.8
R733	Z736	Z737	5	96.8
R734	Z734	Z735	5	96.8
R735	Z732	Z733	5	96.8
R736	Z656	Z748	8.5	197.4
R737	Z748	Z749	6.8	141
R738	Z749	Z750	20.2	141
R739	Z750	Z752	85.5	141
R740	Z752	Z753	4.3	141
R741	Z753	Z754	9	141.0
R742	Z753	Z756	148.8	141.0
R743	Z754	Z755	78.04	141.0
R744	Z750	Z751	41.2	141
R745	Z751	Z761	110.6	141
R746	Z761	Z762	20.5	141.0
R747	Z762	Z763	14.1	141.0
R748	Z763	Z764	48.89	141.0
R749	Z763	Z765	5	96.8
R750	Z762	Z766	5	96.8
R751	Z761	Z767	5	96.8
R752	Z751	Z760	5	96.8
R753	Z749	Z759	5	96.8
R754	Z752	Z758	5	96.8
R755	Z754	Z757	5	96.8
R756	Z774	Z776	5	96.8
R757	Z771	Z777	5	96.8
R758	Z770	Z778	5	96.8
R759	Z769	Z779	5	96.8
R760	Z768	Z780	5	96.8
R761	Z748	Z768	510.8	197.4
R762	Z768	Z769	18.4	197.4
R763	Z769	Z770	96.3	197.4
R764	Z770	Z771	10.4	141
R765	Z771	Z772	139.1	141
R766	Z772	Z774	61.3	141.0
R767	Z774	Z775	9.1	141.0
R768	Z772	Z773	202.6	141.0
R769	Z659	Z781	48.6	277.6
R770	Z781	Z785	78.2	277.6
R771	Z785	Z782	128.1	277.6
R772	Z782	Z783	269.1	277.6
R773	Z783	Z784	64.2	277.6
R774	Z784	Z786	247.3	277.6
R775	Z786	Z787	47.2	277.6

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R776	Z787	Z788	53.7	277.6
R777	Z788	Z789	9.9	277.6
R778	Z789	Z790	29	277.6
R779	Z790	Z791	207.9	221.2
R780	Z791	Z792	90.2	221.2
R781	Z792	Z793	193.2	221.2
R782	Z793	Z794	83.3	221.2
R783	Z794	Z795	10.7	221.2
R798	Z809	Z795	224.05	277.6
R785	Z781	Z808	5	96.8
R786	Z782	Z807	5	96.8
R787	Z783	Z806	5	96.8
R788	Z784	Z805	5	96.8
R789	Z786	Z804	5	96.8
R790	Z787	Z803	5	96.8
R791	Z788	Z802	5	96.8
R792	Z789	Z801	5	96.8
R793	Z791	Z800	5	96.8
R794	Z792	Z799	5	96.8
R795	Z793	Z798	5	96.8
R796	Z794	Z797	5	96.8
R797	Z809	Z796	20.86	96.8
R799	Z661	Z809	10.74	277.6
R800	Z790	Z810	5.7	197.4
R801	Z810	Z811	112.1	197.4
R802	Z811	Z812	88.7	197.4
R803	Z812	Z813	88.5	141
R804	Z813	Z814	89.2	141
R805	Z814	Z815	87.3	141.0
R806	Z815	Z816	118.8	141.0
R807	Z816	Z817	76.1	141.0
R808	Z816	Z818	116.9	141.0
R809	Z810	Z819	5	96.8
R810	Z811	Z820	5	96.8
R811	Z812	Z821	5	96.8
R812	Z813	Z822	5	96.8
R813	Z814	Z823	5	96.8
R814	Z815	Z824	5	96.8
R784	Z825	Z838	5	96.8
R815	Z826	Z839	5	96.8
R816	Z827	Z840	5	96.8
R817	Z828	Z841	5	96.8
R818	Z829	Z842	5	96.8
R819	Z831	Z843	5	96.8
R820	Z831	Z844	5	96.8
R821	Z833	Z845	5	96.8
R822	Z834	Z847	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R823	Z835	Z848	5	96.8
R824	Z836	Z849	5	96.8
R825	Z785	Z825	122.1	277.6
R826	Z825	Z826	233.5	277.6
R827	Z826	Z827	33	277.6
R828	Z827	Z828	65.4	221.2
R829	Z828	Z829	138.6	221.2
R830	Z829	Z830	163.2	221.2
R831	Z830	Z831	8.3	141.0
R832	Z830	Z832	322.9	197.4
R833	Z832	Z846	106.9	141.0
R834	Z832	Z833	1.3	197.4
R835	Z833	Z834	83.9	197.4
R836	Z834	Z835	150.6	141
R837	Z835	Z836	34.9	141.0
R838	Z836	Z837	60.7	141.0
R839	Z795	Z850	189	221.2
R840	Z850	Z851	8.9	221.2
R841	Z851	Z852	143.3	221.2
R842	Z852	Z853	44.2	221.2
R843	Z853	Z854	171.3	221.2
R844	Z854	Z855	103.3	197.4
R845	Z855	Z856	64	141
R846	Z856	Z857	61.3	141
R847	Z857	Z858	80.2	141
R848	Z858	Z859	56.2	141
R849	Z859	Z871	121	141.0
R850	Z854	Z860	316	141
R851	Z860	Z861	122.9	141
R852	Z861	Z874	201	141.0
R853	Z850	Z862	5	96.8
R854	Z851	Z863	5	96.8
R855	Z852	Z864	5	96.8
R856	Z853	Z865	5	96.8
R857	Z855	Z866	5	96.8
R858	Z856	Z867	5	96.8
R859	Z857	Z868	5	96.8
R860	Z858	Z869	5	96.8
R861	Z859	Z870	5	96.8
R862	Z860	Z872	5	96.8
R863	Z861	Z873	5	96.8
R864	Z3	Z875	803.3	400
R865	Z875	Z882	7.5	141.0
R866	Z882	Z883	18.5	141.0
R867	Z883	Z884	155.6	141.0
R868	Z884	Z885	156.9	141.0
R869	Z885	Z886	71.4	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R870	Z886	Z887	367.4	141.0
R871	Z886	Z961	5	96.8
R872	Z885	Z962	5	96.8
R873	Z885	Z963	5	96.8
R874	Z884	Z964	5	96.8
R875	Z884	Z965	5	96.8
R876	Z883	Z966	5	96.8
R877	Z882	Z967	5	96.8
R878	Z875	Z876	383.9	400
R879	Z876	Z888	477.2	400
R880	Z888	Z897	507.9	400
R881	Z876	Z877	20	197.4
R882	Z877	Z878	32.5	141.0
R883	Z878	Z879	183.4	141.0
R884	Z879	Z880	278.4	141.0
R885	Z880	Z881	212.9	141.0
R886	Z878	Z970	5	96.8
R887	Z879	Z969	5	96.8
R888	Z880	Z968	5	96.8
R889	Z877	Z895	533.7	197.4
R890	Z895	Z896	151	197.4
R891	Z896	Z894	27.1	197.4
R896	Z888	Z971	8.8	197.4
R897	Z889	Z890	148	197.4
R898	Z890	Z891	213	197.4
R899	Z891	Z892	201.5	197.4
R900	Z892	Z893	192.7	197.4
R901	Z893	Z894	27.1	197.4
R902	Z971	Z889	251.5	197.4
R903	Z897	Z899	550.3	400
R904	Z1248	Z960	264.3	312.8
R905	Z960	Z935	1161.6	312.8
R906	Z935	Z933	206.7	400
R907	Z933	Z899	373.5	400
R908	Z899	Z900	26.4	141.0
R909	Z900	Z901	140	141.0
R910	Z900	Z972	5	96.8
R911	Z900	Z973	5	96.8
R912	Z897	Z898	3.9	312.8
R913	Z898	Z902	1143.2	312.8
R914	Z898	Z974	5	96.8
R915	Z902	Z903	33	312.8
R916	Z903	Z904	90.3	312.8
R917	Z904	Z905	13.5	312.8
R918	Z905	Z906	15.7	312.8
R919	Z906	Z907	146.3	312.8
R920	Z907	Z908	109.5	312.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R921	Z908	Z909	204	312.8
R922	Z909	Z910	100.9	312.8
R923	Z909	Z981	5	96.8
R924	Z908	Z980	5	96.8
R925	Z907	Z979	5	96.8
R926	Z906	Z978	5	96.8
R927	Z905	Z977	5	96.8
R928	Z904	Z976	5	96.8
R929	Z903	Z975	5	96.8
R930	Z933	Z934	12.9	312.8
R931	Z934	Z932	294.6	312.8
R932	Z932	Z931	209.5	312.8
R933	Z931	Z930	37.3	312.8
R934	Z930	Z929	363.5	312.8
R935	Z929	Z928	69	312.8
R936	Z928	Z927	99.8	312.8
R937	Z927	Z926	192.8	312.8
R938	Z926	Z925	150.8	312.8
R939	Z925	Z924	33.5	312.8
R940	Z924	Z923	101.4	312.8
R941	Z923	Z922	150.2	312.8
R942	Z922	Z921	46.9	312.8
R943	Z921	Z920	36.5	312.8
R944	Z920	Z919	210.77	312.8
R945	Z919	Z918	114.5	312.8
R946	Z918	Z917	69.4	312.8
R947	Z917	Z916	105.3	312.8
R948	Z916	Z915	91.6	312.8
R949	Z915	Z914	143.4	312.8
R950	Z914	Z913	145.1	312.8
R951	Z913	Z912	191.7	312.8
R952	Z912	Z911	249.3	312.8
R953	Z911	Z910	143.2	312.8
R954	Z934	Z982	5	96.8
R955	Z932	Z983	5	96.8
R956	Z931	Z984	5	96.8
R957	Z930	Z985	20.46	96.8
R958	Z929	Z986	5	96.8
R959	Z928	Z987	5	96.8
R960	Z927	Z988	5	96.8
R961	Z926	Z989	5	96.8
R962	Z924	Z990	5	96.8
R963	Z923	Z991	5	96.8
R964	Z922	Z992	5	96.8
R965	Z921	Z993	5	96.8
R966	Z920	Z994	5	96.8
R967	Z918	Z995	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R968	Z917	Z996	5	96.8
R969	Z916	Z997	5	96.8
R970	Z915	Z998	5	96.8
R971	Z914	Z999	5	96.8
R972	Z913	Z1000	5	96.8
R973	Z912	Z1001	5	96.8
R974	Z911	Z1002	5	96.8
R975	Z971	Z1011	5	96.8
R976	Z889	Z1010	5	96.8
R977	Z890	Z1009	5	96.8
R978	Z891	Z1008	5	96.8
R979	Z891	Z1007	5	96.8
R980	Z892	Z1006	5	96.8
R981	Z893	Z1005	5	96.8
R982	Z896	Z1004	5	96.8
R983	Z895	Z1003	5	96.8
R984	Z894	Z1012	405.2	197.4
R985	Z1012	Z1013	210.7	141
R986	Z1013	Z1014	79.4	141
R987	Z1014	Z1015	257.4	141
R988	Z1015	Z1016	47.92	141
R989	Z1016	Z1017	169.6	141
R990	Z1017	Z1018	98.3	141.0
R991	Z1018	Z1019	144.7	141.0
R992	Z1019	Z1020	226.2	141.0
R993	Z1017	Z1021	29.9	141.0
R994	Z1021	Z1022	331.5	141.0
R995	Z1012	Z1023	5	96.8
R996	Z1012	Z1024	30.48	96.8
R997	Z1013	Z1025	5	96.8
R998	Z1014	Z1026	5	96.8
R999	Z1015	Z1027	5	96.8
R1000	Z1016	Z1028	5	96.8
R1001	Z1018	Z1029	5	96.8
R1002	Z1019	Z1030	5	96.8
R1003	Z1021	Z1031	5	96.8
R892	Z902	Z1038	8.6	141
R893	Z1038	Z1037	31.8	141
R894	Z1037	Z1036	110	141
R895	Z1036	Z1035	56	141
R1004	Z1035	Z1034	301.8	141
R1005	Z1034	Z1033	178.1	141.0
R1006	Z1033	Z1032	25.8	141.0
R1007	Z1033	Z1039	5	96.8
R1008	Z1034	Z1040	5	96.8
R1009	Z1035	Z1041	5	96.8
R1010	Z1036	Z1042	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1011	Z1037	Z1043	5	96.8
R1012	Z1038	Z1044	5	96.8
R1013	Z1038	Z1045	5	96.8
R1014	Z910	Z1046	15.4	141
R1015	Z1046	Z1047	32.2	141
R1016	Z1047	Z1048	50.4	141
R1017	Z1048	Z1049	32	141
R1018	Z1049	Z1050	74.2	141
R1019	Z1050	Z1051	21.5	141
R1020	Z1051	Z1052	390.4	141
R1021	Z1052	Z1053	76.9	141.0
R1022	Z1053	Z1054	44.6	141.0
R1023	Z1054	Z1055	103.2	141.0
R1024	Z1046	Z1064	5	96.8
R1025	Z1047	Z1063	5	96.8
R1026	Z1048	Z1062	5	96.8
R1027	Z1049	Z1061	5	96.8
R1028	Z1050	Z1060	5	96.8
R1029	Z1051	Z1059	5	96.8
R1030	Z1052	Z1058	5	96.8
R1031	Z1053	Z1057	5	96.8
R1032	Z1054	Z1056	5	96.8
R1033	Z1065	Z1075	5	96.8
R1034	Z1066	Z1074	5	96.8
R1035	Z1067	Z1073	5	96.8
R1036	Z1068	Z1072	5	96.8
R1037	Z1069	Z1071	5	96.8
R1038	Z919	Z1065	17.3	141
R1039	Z1065	Z1066	231.1	141
R1040	Z1066	Z1067	215.1	141
R1041	Z1067	Z1068	21.9	141
R1042	Z1068	Z1069	56.7	141.0
R1043	Z1069	Z1070	11.7	141.0
R1044	Z1076	Z1082	5	96.8
R1045	Z1076	Z1083	5	96.8
R1046	Z1077	Z1084	5	96.8
R1047	Z1078	Z1085	5	96.8
R1048	Z1079	Z1086	5	96.8
R1049	Z1080	Z1087	5	96.8
R1050	Z925	Z1076	13.15	141
R1051	Z1076	Z1077	381.1	141
R1052	Z1077	Z1078	146.5	141
R1053	Z1078	Z1079	111	141
R1054	Z1079	Z1080	368.5	141
R1055	Z1080	Z1081	158.1	141.0
R1056	Z936	Z1088	12.2	141.0
R1057	Z1088	Z1089	58.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1058	Z1089	Z1090	77.3	141.0
R1059	Z1090	Z1091	99.5	141.0
R1060	Z1091	Z1094	28.5	141.0
R1061	Z1094	Z1092	40.2	141.0
R1062	Z1092	Z1093	79.4	141.0
R1063	Z1094	Z1095	11.4	141.0
R1064	Z1095	Z1096	145.5	141.0
R1065	Z1095	Z1102	11.82	96.8
R1066	Z1092	Z1101	5	96.8
R1067	Z1091	Z1100	5	96.8
R1068	Z1090	Z1099	5	96.8
R1069	Z1089	Z1098	5	96.8
R1070	Z1088	Z1097	5	96.8
R1071	Z935	Z936	2.7	312.8
R1072	Z936	Z937	12	312.8
R1073	Z937	Z938	688.3	312.8
R1074	Z938	Z1108	530.5	221.2
R1075	Z938	Z939	10.60	141
R1076	Z939	Z1246	136.2	141
R1077	Z939	Z1103	5	96.8
R1079	Z942	Z943	150.6	141
R1080	Z943	Z944	381.9	141
R1082	Z945	Z946	141.3	141
R1083	Z946	Z947	90.4	141
R1084	Z947	Z948	188.8	141
R1085	Z948	Z949	293.7	141
R1086	Z949	Z950	28.6	141
R1088	Z951	Z952	52	197.4
R1089	Z952	Z953	23.4	197.4
R1090	Z953	Z954	174.2	197.4
R1091	Z954	Z955	16.5	197.4
R1092	Z955	Z956	37.2	197.4
R1093	Z956	Z957	114	197.4
R1095	Z1104	Z1105	268.6	141.0
R1096	Z1104	Z1107	5	96.8
R1097	Z1104	Z1106	5	96.8
R1099	Z1108	Z1111	76	141
R1100	Z1111	Z1109	16.7	141
R1101	Z1109	Z1110	69.3	141.0
R1102	Z1109	Z1112	94	141
R1103	Z1112	Z1113	121.5	141
R1104	Z1113	Z1114	12.3	141.0
R1105	Z1111	Z1117	5	96.8
R1106	Z1110	Z1118	5	96.8
R1107	Z1112	Z1116	5	96.8
R1108	Z1112	Z1119	5	96.8
R1109	Z1113	Z1115	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1110	Z942	Z1120	5	96.8
R1111	Z942	Z1121	5	96.8
R1112	Z943	Z1122	5	96.8
R1113	Z943	Z1123	5	96.8
R1114	Z944	Z1124	5	96.8
R1115	Z944	Z1125	5	96.8
R1116	Z945	Z1126	5	96.8
R1117	Z945	Z1127	5	96.8
R1118	Z946	Z1128	5	96.8
R1119	Z947	Z1129	5	96.8
R1120	Z948	Z1130	5	96.8
R1121	Z1130	Z1132	5	96.8
R1122	Z1130	Z1131	5	96.8
R1123	Z949	Z1133	5	96.8
R1124	Z950	Z1134	5	96.8
R1125	Z951	Z1135	5	96.8
R1126	Z952	Z1136	5	96.8
R1127	Z953	Z1137	5	96.8
R1128	Z956	Z1141	5	96.8
R1129	Z955	Z1140	5	96.8
R1130	Z954	Z1138	5	96.8
R1131	Z954	Z1139	5	96.8
R1132	Z1108	Z1142	122	197.4
R1133	Z1142	Z1143	197.4	197.4
R1134	Z1143	Z1144	197.4	141
R1135	Z1144	Z1145	4.8	141
R1136	Z1145	Z1146	64.4	141
R1137	Z1146	Z1147	21.4	141.0
R1138	Z1147	Z1148	77.3	141.0
R1139	Z1142	Z1153	5	96.8
R1140	Z1143	Z1152	5	96.8
R1141	Z1145	Z1151	5	96.8
R1142	Z1146	Z1150	5	96.8
R1143	Z1147	Z1149	5	96.8
R1144	Z1144	Z1154	494	141
R1145	Z1154	Z1155	7.5	141
R1146	Z1155	Z1156	114.7	141.0
R1147	Z1155	Z1158	5	96.8
R1148	Z1154	Z1157	5	96.8
R1149	Z957	Z958	288	197.4
R1150	Z959	Z958	122.3	197.4
R1151	Z293	Z959	453	197.4
R1152	Z959	Z1159	5	96.8
R1153	Z1163	Z1170	5	96.8
R1154	Z1163	Z1171	5	96.8
R1155	Z1162	Z1168	5	96.8
R1156	Z1162	Z1169	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1157	Z1161	Z1167	5	96.8
R1158	Z1160	Z1164	5	96.8
R1159	Z958	Z1166	5	96.8
R1162	Z1244	Z1161	6.6	141.0
R1163	Z1161	Z1243	88.2	141.0
R1164	Z1162	Z1163	347.6	141.0
R1165	Z1172	Z1174	5	96.8
R1166	Z960	Z1175	3.8	221.2
R1167	Z1175	Z1172	48.5	141.0
R1168	Z1172	Z1173	181.7	141.0
R1169	Z1175	Z1176	9.2	221.2
R1170	Z1176	Z1177	17	141.0
R1171	Z1177	Z1178	11.4	141.0
R1172	Z1178	Z1179	155	141.0
R1173	Z1179	Z1180	108.8	141.0
R1174	Z1180	Z1181	24.6	141.0
R1175	Z1180	Z1185	5	96.8
R1176	Z1179	Z1184	5	96.8
R1177	Z1178	Z1183	5	96.8
R1178	Z1177	Z1182	5	96.8
R1179	Z1176	Z1186	193.3	221.2
R1180	Z1186	Z1187	47.2	141.0
R1181	Z1187	Z1188	12.6	141.0
R1182	Z1188	Z1189	85.2	141.0
R1183	Z1189	Z1190	12.1	141.0
R1184	Z1190	Z1191	108.7	141.0
R1185	Z1190	Z1192	5	96.8
R1186	Z1189	Z1193	5	96.8
R1187	Z1188	Z1194	5	96.8
R1188	Z1187	Z1195	5	96.8
R1189	Z1186	Z1196	22.1	197.4
R1190	Z1196	Z1197	11.9	197.4
R1191	Z1197	Z1198	70.1	197.4
R1192	Z1198	Z1199	40.4	141.0
R1193	Z1199	Z1200	31.7	141.0
R1194	Z1200	Z1201	28.9	141.0
R1195	Z1198	Z1202	8.6	141.0
R1196	Z1202	Z1203	149.5	141.0
R1197	Z1203	Z1204	36.3	141.0
R1198	Z1204	Z1205	34	141.0
R1199	Z1196	Z1206	5	96.8
R1200	Z1197	Z1207	5	96.8
R1201	Z1202	Z1208	5	96.8
R1202	Z1199	Z1209	5	96.8
R1203	Z1200	Z1210	5	96.8
R1204	Z1203	Z1212	5	96.8
R1205	Z1204	Z1211	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1206	Z1036	Z1213	5	96.8
R1207	Z937	Z1214	21.07	96.8
R1208	Z116	Z1215	5	96.8
R1209	Z116	Z1216	5	96.8
R1210	Z52	Z1217	5	96.8
R1211	Z32	Z1218	5	96.8
R1212	Z33	Z1219	5	96.8
R1213	Z34	Z1220	5	96.8
R1214	Z35	Z1221	5	96.8
R1215	Z36	Z1222	5	96.8
R1216	Z37	Z1223	5	96.8
R1217	Z38	Z1224	5	96.8
R1218	Z660	Z1225	6.8	141.0
R1219	Z1225	Z1226	3.2	141.0
R1220	Z1226	Z1228	10.3	141.0
R1221	Z1226	Z1229	5	96.8
R1222	Z1225	Z1227	36.5	141.0
R1223	Z1227	Z1230	5	96.8
R1224	Z1227	Z1231	5	96.8
R1225	Z658	Z1232	2.7	141.0
R1226	Z1232	Z1234	7.4	141.0
R1227	Z1234	Z1236	10	141.0
R1228	Z1236	Z1235	31.2	141.0
R1229	Z1232	Z1233	10.3	141.0
R1230	Z1234	Z1238	5	96.8
R1231	Z1236	Z1237	5	96.8
R1	Z384	Z1239	5	96.8
R2	Z384	Z1240	5	96.8
R1232	Z383	Z1241	5	96.8
R1233	Z382	Z1242	5	96.8
R430	Z462	Z461	276.2	312.8
R1234	Z1243	Z1162	14.2	141.0
R1235	Z1243	Z1104	275.3	141.0
R1236	Z1245	Z1244	357.4	141
R1237	Z1245	Z292	5	98.6
R1238	Z1244	Z1160	164.3	141.0
R3187	Z951	Z950	400.7	197.4
R1239	Z1246	Z940	5	96.8
R1240	Z1246	Z1247	543	141
R1241	Z1247	Z942	5.5	141
R1078	Z3	Z1248	13465	600
R1081	Z1248	Z293	68.4	400
P1	S1	Z1	#N/A	#N/A Pump
P2	S1	Z1	#N/A	#N/A Pump
P3	S1	Z1	#N/A	#N/A Pump
P4	S1	Z1	#N/A	#N/A Pump
P5	S1	Z1	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm		
P6	S1	Z1	#N/A	#N/A Pump		
P7	S1	Z1	#N/A	#N/A Pump		
Energy Usage:						
Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.99	156.99	0.00
P3	100.00	75.00	0.29	156.99	156.99	0.00
P4	100.00	75.00	0.29	156.99	156.99	0.00
P5	100.00	75.00	0.29	156.99	156.99	0.00
P6	100.00	75.00	0.29	156.99	156.99	0.00
P7	100.00	75.00	0.29	156.99	156.99	0.00
Demand Charge:					0.00	0.00
Total Cost:					0.00	0.00

Node Results:

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1	0.00	89.84	79.84	0.00
Z2	0.00	89.45	79.45	0.00
Z3	0.00	84.75	74.75	0.00
Z4	0.00	89.16	79.16	0.00
Z5	0.00	88.16	78.16	0.00
Z6	0.00	88.08	78.08	0.00
Z7	0.00	87.86	77.86	0.00
Z8	0.00	87.72	77.72	0.00
Z9	0.00	87.68	77.68	0.00
Z10	0.00	87.38	77.38	0.00
Z11	0.00	87.27	77.27	0.00
Z12	0.00	86.86	76.86	0.00
Z13	0.00	86.57	76.57	0.00
Z14	0.00	86.44	76.44	0.00
Z15	0.00	86.11	76.11	0.00
Z16	0.00	85.94	75.94	0.00
Z17	0.00	85.83	75.83	0.00
Z18	0.00	85.72	75.72	0.00
Z19	0.00	85.68	75.68	0.00
Z20	0.00	85.52	75.52	0.00
Z21	0.00	85.48	75.48	0.00
Z22	0.00	85.41	75.41	0.00
Z23	0.00	85.30	75.30	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z24	0.00	85.26	75.26	0.00
Z25	0.00	85.19	75.19	0.00
Z26	0.00	85.02	75.02	0.00
Z27	0.00	85.01	75.01	0.00
Z28	0.00	84.80	74.80	0.00
Z29	0.00	85.75	75.75	0.00
Z56	3.06	89.15	79.15	0.00
Z57	3.06	88.15	78.15	0.00
Z58	3.06	88.07	78.07	0.00
Z59	3.06	87.85	77.85	0.00
Z60	3.06	87.71	77.71	0.00
Z61	3.06	87.67	77.67	0.00
Z62	3.06	87.37	77.37	0.00
Z63	3.06	87.26	77.26	0.00
Z64	3.06	86.85	76.85	0.00
Z65	3.06	86.56	76.56	0.00
Z66	3.06	86.43	76.43	0.00
Z67	3.06	86.10	76.10	0.00
Z68	3.06	85.93	75.93	0.00
Z69	3.06	85.82	75.82	0.00
Z70	3.06	85.71	75.71	0.00
Z71	3.06	85.67	75.67	0.00
Z72	3.06	83.82	73.82	0.00
Z73	3.06	85.51	75.51	0.00
Z74	3.06	85.47	75.47	0.00
Z75	3.06	85.40	75.40	0.00
Z76	3.06	85.29	75.29	0.00
Z77	3.06	85.25	75.25	0.00
Z78	3.06	85.18	75.18	0.00
Z79	3.06	85.01	75.01	0.00
Z80	3.06	85.00	75.00	0.00
Z81	3.06	84.79	74.79	0.00
Z82	0.00	83.36	73.36	0.00
Z83	0.00	81.07	71.07	0.00
Z84	0.00	80.64	70.64	0.00
Z85	0.00	79.64	69.64	0.00
Z86	0.00	78.95	68.95	0.00
Z87	0.00	78.84	68.84	0.00
Z88	0.00	78.56	68.56	0.00
Z89	0.00	78.50	68.50	0.00
Z90	3.06	78.49	68.49	0.00
Z91	3.06	83.35	73.35	0.00
Z92	3.06	81.06	71.06	0.00
Z93	3.06	80.63	70.63	0.00
Z94	3.06	79.63	69.63	0.00
Z95	3.06	78.94	68.94	0.00
Z96	3.06	78.83	68.83	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z97	3.06	78.55	68.55	0.00
Z98	3.06	78.49	68.49	0.00
Z99	0.00	82.74	72.74	0.00
Z100	0.00	78.27	68.27	0.00
Z101	0.00	76.57	66.57	0.00
Z102	0.00	71.68	61.68	0.00
Z103	0.00	71.05	61.05	0.00
Z104	0.00	70.47	60.47	0.00
Z105	0.00	70.31	60.31	0.00
Z106	0.00	70.01	60.01	0.00
Z107	0.00	69.97	59.97	0.00
Z108	3.06	70.00	60.00	0.00
Z109	3.06	70.30	60.30	0.00
Z110	3.06	70.46	60.46	0.00
Z111	3.06	71.04	61.04	0.00
Z112	3.06	71.67	61.67	0.00
Z113	3.06	76.56	66.56	0.00
Z114	3.06	78.26	68.26	0.00
Z115	3.06	82.73	72.73	0.00
Z116	0.00	84.76	74.76	0.00
Z117	0.00	84.60	74.60	0.00
Z118	0.00	84.51	74.51	0.00
Z119	0.00	84.44	74.44	0.00
Z120	0.00	84.30	74.30	0.00
Z121	0.00	84.22	74.22	0.00
Z122	0.00	84.60	74.60	0.00
Z123	0.00	84.60	74.60	0.00
Z124	0.00	84.60	74.60	0.00
Z125	0.00	84.60	74.60	0.00
Z126	0.00	84.60	74.60	0.00
Z127	3.06	69.96	59.96	0.00
Z128	0.00	84.60	74.60	0.00
Z129	0.00	84.60	74.60	0.00
Z130	0.00	84.60	74.60	0.00
Z30	0.00	83.95	73.95	0.00
Z31	0.00	83.93	73.93	0.00
Z32	0.00	83.92	73.92	0.00
Z33	0.00	83.78	73.78	0.00
Z34	0.00	83.67	73.67	0.00
Z35	0.00	83.57	73.57	0.00
Z36	0.00	83.55	73.55	0.00
Z37	0.00	83.53	73.53	0.00
Z38	0.00	83.52	73.52	0.00
Z39	0.00	83.47	73.47	0.00
Z40	0.00	83.45	73.45	0.00
Z42	0.00	83.95	73.95	0.00
Z43	0.00	83.93	73.93	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z44	0.00	83.93	73.93	0.00
Z45	0.00	83.93	73.93	0.00
Z46	0.00	83.93	73.93	0.00
Z48	0.00	83.93	73.93	0.00
Z49	0.00	84.51	74.51	0.00
Z50	0.00	84.44	74.44	0.00
Z51	0.00	84.30	74.30	0.00
Z52	0.00	84.22	74.22	0.00
Z53	0.00	84.22	74.22	0.00
Z54	0.00	84.22	74.22	0.00
Z55	0.00	84.22	74.22	0.00
Z131	0.00	84.22	74.22	0.00
Z132	0.00	84.34	74.34	0.00
Z133	0.00	83.99	73.99	0.00
Z134	0.00	83.85	73.85	0.00
Z135	0.00	83.65	73.65	0.00
Z136	0.00	83.56	73.56	0.00
Z137	3.06	83.53	73.53	0.00
Z138	0.00	83.39	73.39	0.00
Z139	0.00	83.02	73.02	0.00
Z140	0.00	82.85	72.85	0.00
Z141	0.00	82.84	72.84	0.00
Z142	3.06	82.80	72.80	0.00
Z143	0.00	84.00	74.00	0.00
Z144	0.00	83.73	73.73	0.00
Z145	0.00	83.73	73.73	0.00
Z146	0.00	83.73	73.73	0.00
Z147	0.00	83.73	73.73	0.00
Z148	0.00	83.73	73.73	0.00
Z149	0.00	83.73	73.73	0.00
Z150	0.00	83.73	73.73	0.00
Z151	0.00	83.73	73.73	0.00
Z152	0.00	83.73	73.73	0.00
Z153	0.00	83.73	73.73	0.00
Z154	0.00	83.73	73.73	0.00
Z155	0.00	83.73	73.73	0.00
Z156	0.00	83.73	73.73	0.00
Z157	3.06	82.83	72.83	0.00
Z158	3.06	82.84	72.84	0.00
Z159	3.06	83.01	73.01	0.00
Z160	3.06	83.38	73.38	0.00
Z161	3.06	83.84	73.84	0.00
Z162	3.06	83.64	73.64	0.00
Z163	3.06	83.55	73.55	0.00
Z164	0.00	78.64	68.64	0.00
Z165	0.00	67.51	57.51	0.00
Z166	0.00	83.73	73.73	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z167	0.00	83.73	73.73	0.00
Z168	0.00	83.73	73.73	0.00
Z169	0.00	83.73	73.73	0.00
Z170	0.00	83.73	73.73	0.00
Z171	0.00	83.73	73.73	0.00
Z172	0.00	83.73	73.73	0.00
Z173	0.00	83.73	73.73	0.00
Z174	0.00	83.73	73.73	0.00
Z175	0.00	83.45	73.45	0.00
Z176	0.00	83.11	73.11	0.00
Z177	0.00	82.88	72.88	0.00
Z178	0.00	82.88	72.88	0.00
Z179	0.00	82.88	72.88	0.00
Z180	0.00	82.88	72.88	0.00
Z181	0.00	82.88	72.88	0.00
Z182	0.00	82.88	72.88	0.00
Z183	0.00	82.88	72.88	0.00
Z184	0.00	82.88	72.88	0.00
Z185	0.00	82.88	72.88	0.00
Z186	0.00	82.88	72.88	0.00
Z187	0.00	82.88	72.88	0.00
Z188	0.00	82.88	72.88	0.00
Z189	0.00	82.88	72.88	0.00
Z190	0.00	82.88	72.88	0.00
Z191	0.00	82.88	72.88	0.00
Z192	0.00	82.88	72.88	0.00
Z193	0.00	82.88	72.88	0.00
Z194	0.00	82.88	72.88	0.00
Z195	0.00	82.88	72.88	0.00
Z196	0.00	82.88	72.88	0.00
Z197	0.00	82.88	72.88	0.00
Z198	0.00	82.88	72.88	0.00
Z199	0.00	82.88	72.88	0.00
Z200	0.00	82.88	72.88	0.00
Z201	0.00	82.88	72.88	0.00
Z202	0.00	82.88	72.88	0.00
Z203	0.00	82.88	72.88	0.00
Z204	0.00	82.88	72.88	0.00
Z205	0.00	82.47	72.47	0.00
Z206	0.00	82.02	72.02	0.00
Z207	0.00	82.09	72.09	0.00
Z208	0.00	82.28	72.28	0.00
Z209	0.00	82.32	72.32	0.00
Z210	0.00	82.09	72.09	0.00
Z211	0.00	82.09	72.09	0.00
Z212	0.00	82.09	72.09	0.00
Z213	0.00	82.09	72.09	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z214	0.00	82.09	72.09	0.00
Z215	0.00	82.09	72.09	0.00
Z216	0.00	82.09	72.09	0.00
Z217	0.00	82.09	72.09	0.00
Z218	0.00	82.09	72.09	0.00
Z219	0.00	82.28	72.28	0.00
Z220	0.00	82.28	72.28	0.00
Z221	0.00	82.28	72.28	0.00
Z222	0.00	82.28	72.28	0.00
Z223	0.00	82.28	72.28	0.00
Z224	0.00	82.28	72.28	0.00
Z225	0.00	82.28	72.28	0.00
Z226	0.00	82.28	72.28	0.00
Z227	0.00	82.28	72.28	0.00
Z228	0.00	82.28	72.28	0.00
Z229	0.00	82.28	72.28	0.00
Z230	0.00	82.28	72.28	0.00
Z231	0.00	82.28	72.28	0.00
Z232	0.00	82.28	72.28	0.00
Z233	0.00	82.28	72.28	0.00
Z234	0.00	82.28	72.28	0.00
Z235	0.00	82.28	72.28	0.00
Z236	0.00	82.28	72.28	0.00
Z41	0.00	78.59	68.59	0.00
Z47	0.00	77.83	67.83	0.00
Z237	0.00	76.34	66.34	0.00
Z238	0.00	74.37	64.37	0.00
Z239	0.00	66.30	56.30	0.00
Z240	0.00	64.79	54.79	0.00
Z241	0.00	63.41	53.41	0.00
Z242	0.00	62.19	52.19	0.00
Z243	0.00	60.99	50.99	0.00
Z244	0.00	58.64	48.64	0.00
Z245	0.00	58.35	48.35	0.00
Z246	0.00	58.16	48.16	0.00
Z247	0.00	57.86	47.86	0.00
Z248	0.00	57.78	47.78	0.00
Z249	3.06	57.77	47.77	0.00
Z250	0.00	58.12	48.12	0.00
Z251	0.00	58.00	48.00	0.00
Z252	3.06	78.58	68.58	0.00
Z253	0.00	78.21	68.21	0.00
Z254	3.06	78.20	68.20	0.00
Z255	3.06	78.21	68.21	0.00
Z256	3.06	77.82	67.82	0.00
Z257	3.06	76.33	66.33	0.00
Z258	3.06	74.36	64.36	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z259	3.06	66.29	56.29	0.00
Z260	3.06	64.78	54.78	0.00
Z261	3.06	63.40	53.40	0.00
Z262	3.06	62.18	52.18	0.00
Z263	3.06	62.18	52.18	0.00
Z264	3.06	60.98	50.98	0.00
Z265	3.06	60.98	50.98	0.00
Z266	3.06	58.63	48.63	0.00
Z267	3.06	58.34	48.34	0.00
Z268	0.00	58.03	48.03	0.00
Z269	3.06	57.77	47.77	0.00
Z270	3.06	57.85	47.85	0.00
Z271	3.06	58.02	48.02	0.00
Z272	3.06	58.11	48.11	0.00
Z273	3.06	57.99	47.99	0.00
Z274	3.06	57.99	47.99	0.00
Z275	0.00	67.44	57.44	0.00
Z276	0.00	67.41	57.41	0.00
Z277	0.00	66.85	56.85	0.00
Z278	0.00	66.76	56.76	0.00
Z279	0.00	66.74	56.74	0.00
Z280	3.06	66.72	56.72	0.00
Z281	0.00	72.65	62.65	0.00
Z282	0.00	72.62	62.62	0.00
Z283	3.06	71.06	61.06	0.00
Z284	0.00	71.13	61.13	0.00
Z285	0.00	71.00	61.00	0.00
Z286	0.00	70.16	60.16	0.00
Z287	0.00	69.67	59.67	0.00
Z288	0.00	69.39	59.39	0.00
Z289	0.00	69.24	59.24	0.00
Z290	3.06	69.23	59.23	0.00
Z291	0.00	72.56	62.56	0.00
Z292	3.06	64.44	54.44	0.00
Z293	0.00	72.58	62.58	0.00
Z294	0.00	72.83	62.83	0.00
Z295	3.06	67.43	57.43	0.00
Z296	3.06	67.40	57.40	0.00
Z297	3.06	66.84	56.84	0.00
Z298	3.06	66.75	56.75	0.00
Z299	3.06	66.73	56.73	0.00
Z300	3.06	72.61	62.61	0.00
Z301	3.06	72.61	62.61	0.00
Z302	3.06	70.99	60.99	0.00
Z303	3.06	69.23	59.23	0.00
Z304	3.06	69.38	59.38	0.00
Z305	3.06	69.66	59.66	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z306	3.06	70.15	60.15	0.00
Z307	0.00	72.34	62.34	0.00
Z308	0.00	65.47	55.47	0.00
Z309	0.00	62.60	52.60	0.00
Z310	0.00	62.54	52.54	0.00
Z311	0.00	62.18	52.18	0.00
Z312	3.06	62.07	52.07	0.00
Z313	0.00	62.08	52.08	0.00
Z314	0.00	62.06	52.06	0.00
Z315	3.06	62.05	52.05	0.00
Z316	3.06	62.04	52.04	0.00
Z317	0.00	61.68	51.68	0.00
Z318	3.06	61.67	51.67	0.00
Z319	3.06	61.68	51.68	0.00
Z320	3.06	62.53	52.53	0.00
Z321	3.06	65.46	55.46	0.00
Z322	0.00	75.46	65.46	0.00
Z323	0.00	72.26	62.26	0.00
Z324	0.00	71.62	61.62	0.00
Z325	0.00	68.63	58.63	0.00
Z326	0.00	68.06	58.06	0.00
Z327	0.00	67.81	57.81	0.00
Z328	0.00	64.15	54.15	0.00
Z329	0.00	64.03	54.03	0.00
Z330	0.00	62.95	52.95	0.00
Z331	0.00	62.43	52.43	0.00
Z332	0.00	61.25	51.25	0.00
Z333	0.00	61.23	51.23	0.00
Z334	0.00	61.19	51.19	0.00
Z335	3.06	72.25	62.25	0.00
Z336	3.06	72.25	62.25	0.00
Z337	3.06	71.61	61.61	0.00
Z338	3.06	68.62	58.62	0.00
Z339	3.06	68.05	58.05	0.00
Z340	3.06	67.80	57.80	0.00
Z341	3.06	64.14	54.14	0.00
Z342	3.06	64.02	54.02	0.00
Z343	3.06	62.94	52.94	0.00
Z344	3.06	62.94	52.94	0.00
Z345	3.06	62.42	52.42	0.00
Z346	3.06	61.24	51.24	0.00
Z347	3.06	61.22	51.22	0.00
Z348	3.06	61.18	51.18	0.00
Z349	3.06	61.18	51.18	0.00
Z350	0.00	71.05	61.05	0.00
Z351	0.00	70.95	60.95	0.00
Z352	0.00	68.86	58.86	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z353	0.00	68.09	58.09	0.00
Z354	0.00	67.42	57.42	0.00
Z355	0.00	67.18	57.18	0.00
Z356	3.06	67.16	57.16	0.00
Z357	3.06	67.09	57.09	0.00
Z358	3.06	71.04	61.04	0.00
Z359	3.06	70.94	60.94	0.00
Z360	3.06	68.85	58.85	0.00
Z361	3.06	68.08	58.08	0.00
Z362	3.06	67.41	57.41	0.00
Z363	3.06	67.41	57.41	0.00
Z364	0.00	78.19	68.19	0.00
Z365	0.00	80.89	70.89	0.00
Z366	0.00	78.19	68.19	0.00
Z367	0.00	78.19	68.19	0.00
Z368	0.00	78.19	68.19	0.00
Z369	0.00	78.19	68.19	0.00
Z370	0.00	78.19	68.19	0.00
Z371	0.00	78.19	68.19	0.00
Z372	0.00	78.19	68.19	0.00
Z373	0.00	78.19	68.19	0.00
Z374	0.00	78.19	68.19	0.00
Z375	0.00	78.19	68.19	0.00
Z376	0.00	78.19	68.19	0.00
Z377	0.00	78.19	68.19	0.00
Z378	0.00	78.19	68.19	0.00
Z379	0.00	78.19	68.19	0.00
Z380	0.00	78.19	68.19	0.00
Z381	0.00	78.19	68.19	0.00
Z382	0.00	78.19	68.19	0.00
Z383	0.00	78.19	68.19	0.00
Z384	0.00	78.19	68.19	0.00
Z385	0.00	78.19	68.19	0.00
Z386	0.00	78.19	68.19	0.00
Z387	0.00	78.19	68.19	0.00
Z388	0.00	78.19	68.19	0.00
Z389	0.00	78.19	68.19	0.00
Z390	0.00	78.19	68.19	0.00
Z391	0.00	78.19	68.19	0.00
Z392	0.00	78.19	68.19	0.00
Z393	0.00	78.19	68.19	0.00
Z394	0.00	78.19	68.19	0.00
Z395	0.00	78.19	68.19	0.00
Z396	0.00	78.19	68.19	0.00
Z397	0.00	78.19	68.19	0.00
Z398	0.00	78.19	68.19	0.00
Z399	0.00	78.19	68.19	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z400	0.00	80.89	70.89	0.00
Z401	0.00	80.89	70.89	0.00
Z402	0.00	80.89	70.89	0.00
Z403	0.00	80.89	70.89	0.00
Z404	0.00	80.89	70.89	0.00
Z405	0.00	80.89	70.89	0.00
Z406	0.00	80.89	70.89	0.00
Z407	0.00	80.89	70.89	0.00
Z408	0.00	80.89	70.89	0.00
Z409	0.00	80.89	70.89	0.00
Z410	0.00	80.89	70.89	0.00
Z411	0.00	80.89	70.89	0.00
Z412	0.00	80.89	70.89	0.00
Z413	0.00	80.89	70.89	0.00
Z414	0.00	80.89	70.89	0.00
Z415	0.00	80.89	70.89	0.00
Z416	0.00	80.89	70.89	0.00
Z417	0.00	80.89	70.89	0.00
Z418	0.00	80.89	70.89	0.00
Z419	0.00	80.89	70.89	0.00
Z420	0.00	80.89	70.89	0.00
Z421	0.00	82.28	72.28	0.00
Z422	0.00	82.28	72.28	0.00
Z423	0.00	82.28	72.28	0.00
Z424	0.00	82.28	72.28	0.00
Z425	0.00	82.28	72.28	0.00
Z426	0.00	82.28	72.28	0.00
Z427	0.00	82.28	72.28	0.00
Z428	0.00	82.28	72.28	0.00
Z429	0.00	82.28	72.28	0.00
Z430	0.00	82.28	72.28	0.00
Z431	0.00	82.28	72.28	0.00
Z432	0.00	82.28	72.28	0.00
Z433	0.00	82.28	72.28	0.00
Z434	0.00	82.28	72.28	0.00
Z435	0.00	82.28	72.28	0.00
Z436	0.00	82.28	72.28	0.00
Z437	0.00	82.28	72.28	0.00
Z438	0.00	82.28	72.28	0.00
Z439	0.00	82.28	72.28	0.00
Z440	0.00	82.32	72.32	0.00
Z441	0.00	82.32	72.32	0.00
Z442	0.00	82.32	72.32	0.00
Z443	0.00	82.32	72.32	0.00
Z444	0.00	82.32	72.32	0.00
Z445	0.00	82.32	72.32	0.00
Z446	0.00	82.32	72.32	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z447	0.00	82.32	72.32	0.00
Z448	0.00	82.32	72.32	0.00
Z449	0.00	82.32	72.32	0.00
Z450	0.00	82.32	72.32	0.00
Z451	0.00	82.32	72.32	0.00
Z452	0.00	82.32	72.32	0.00
Z453	0.00	82.32	72.32	0.00
Z454	0.00	82.32	72.32	0.00
Z455	0.00	82.32	72.32	0.00
Z456	0.00	82.32	72.32	0.00
Z457	0.00	82.32	72.32	0.00
Z458	0.00	82.32	72.32	0.00
Z459	0.00	82.54	72.54	0.00
Z460	0.00	82.54	72.54	0.00
Z461	0.00	82.54	72.54	0.00
Z462	0.00	82.54	72.54	0.00
Z463	0.00	82.54	72.54	0.00
Z464	0.00	82.54	72.54	0.00
Z465	0.00	82.54	72.54	0.00
Z466	0.00	82.49	72.49	0.00
Z467	0.00	82.42	72.42	0.00
Z468	0.00	82.42	72.42	0.00
Z469	0.00	82.42	72.42	0.00
Z470	0.00	82.42	72.42	0.00
Z471	0.00	82.42	72.42	0.00
Z472	0.00	82.42	72.42	0.00
Z473	0.00	82.42	72.42	0.00
Z474	0.00	82.42	72.42	0.00
Z475	0.00	82.42	72.42	0.00
Z476	0.00	82.42	72.42	0.00
Z477	0.00	82.47	72.47	0.00
Z478	0.00	82.47	72.47	0.00
Z479	0.00	82.47	72.47	0.00
Z480	0.00	82.47	72.47	0.00
Z481	0.00	82.47	72.47	0.00
Z482	0.00	82.54	72.54	0.00
Z483	0.00	82.54	72.54	0.00
Z484	0.00	82.54	72.54	0.00
Z485	0.00	82.54	72.54	0.00
Z486	0.00	82.54	72.54	0.00
Z487	0.00	82.54	72.54	0.00
Z488	0.00	82.54	72.54	0.00
Z489	0.00	82.54	72.54	0.00
Z490	0.00	82.54	72.54	0.00
Z491	0.00	82.54	72.54	0.00
Z492	0.00	82.54	72.54	0.00
Z493	0.00	82.54	72.54	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z494	0.00	82.54	72.54	0.00
Z495	0.00	82.54	72.54	0.00
Z496	0.00	82.54	72.54	0.00
Z497	0.00	82.54	72.54	0.00
Z498	0.00	82.54	72.54	0.00
Z499	0.00	82.54	72.54	0.00
Z500	0.00	82.54	72.54	0.00
Z501	0.00	82.54	72.54	0.00
Z502	0.00	82.54	72.54	0.00
Z503	0.00	82.54	72.54	0.00
Z504	0.00	82.54	72.54	0.00
Z505	0.00	82.54	72.54	0.00
Z506	0.00	82.54	72.54	0.00
Z507	0.00	82.54	72.54	0.00
Z508	0.00	82.54	72.54	0.00
Z509	0.00	82.53	72.53	0.00
Z510	0.00	82.54	72.54	0.00
Z511	0.00	82.57	72.57	0.00
Z512	0.00	82.58	72.58	0.00
Z513	0.00	82.65	72.65	0.00
Z514	0.00	82.80	72.80	0.00
Z515	0.00	82.85	72.85	0.00
Z516	0.00	82.92	72.92	0.00
Z518	0.00	83.08	73.08	0.00
Z519	0.00	83.08	73.08	0.00
Z520	0.00	83.08	73.08	0.00
Z521	0.00	83.08	73.08	0.00
Z522	0.00	83.08	73.08	0.00
Z523	0.00	83.08	73.08	0.00
Z524	0.00	83.08	73.08	0.00
Z525	0.00	82.50	72.50	0.00
Z526	0.00	82.50	72.50	0.00
Z527	0.00	82.53	72.53	0.00
Z528	0.00	82.54	72.54	0.00
Z529	0.00	82.57	72.57	0.00
Z530	0.00	82.58	72.58	0.00
Z531	0.00	82.65	72.65	0.00
Z532	0.00	82.65	72.65	0.00
Z533	0.00	82.65	72.65	0.00
Z534	0.00	82.65	72.65	0.00
Z535	0.00	82.65	72.65	0.00
Z536	0.00	82.65	72.65	0.00
Z537	0.00	82.65	72.65	0.00
Z538	0.00	82.65	72.65	0.00
Z539	0.00	82.65	72.65	0.00
Z540	0.00	82.65	72.65	0.00
Z541	0.00	82.65	72.65	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z542	0.00	82.65	72.65	0.00
Z543	0.00	82.65	72.65	0.00
Z544	0.00	82.65	72.65	0.00
Z545	0.00	82.65	72.65	0.00
Z546	0.00	82.65	72.65	0.00
Z547	0.00	82.65	72.65	0.00
Z548	0.00	82.65	72.65	0.00
Z549	0.00	82.65	72.65	0.00
Z550	0.00	82.65	72.65	0.00
Z551	0.00	82.65	72.65	0.00
Z552	0.00	82.65	72.65	0.00
Z553	0.00	82.65	72.65	0.00
Z554	0.00	82.80	72.80	0.00
Z555	0.00	82.80	72.80	0.00
Z556	0.00	82.80	72.80	0.00
Z557	0.00	82.80	72.80	0.00
Z558	0.00	82.80	72.80	0.00
Z559	0.00	82.85	72.85	0.00
Z560	0.00	82.92	72.92	0.00
Z561	0.00	83.08	73.08	0.00
Z562	0.00	83.08	73.08	0.00
Z563	0.00	83.08	73.08	0.00
Z564	0.00	83.08	73.08	0.00
Z565	0.00	83.08	73.08	0.00
Z566	0.00	83.08	73.08	0.00
Z567	0.00	83.08	73.08	0.00
Z568	0.00	83.08	73.08	0.00
Z569	0.00	83.08	73.08	0.00
Z570	0.00	83.08	73.08	0.00
Z571	0.00	83.08	73.08	0.00
Z572	0.00	83.08	73.08	0.00
Z573	0.00	83.08	73.08	0.00
Z574	0.00	83.08	73.08	0.00
Z575	0.00	83.08	73.08	0.00
Z576	0.00	82.65	72.65	0.00
Z577	0.00	82.62	72.62	0.00
Z578	0.00	82.62	72.62	0.00
Z579	0.00	82.62	72.62	0.00
Z580	0.00	82.62	72.62	0.00
Z581	0.00	82.62	72.62	0.00
Z582	0.00	82.62	72.62	0.00
Z583	0.00	82.62	72.62	0.00
Z584	0.00	82.62	72.62	0.00
Z585	0.00	82.62	72.62	0.00
Z586	0.00	82.62	72.62	0.00
Z587	0.00	82.62	72.62	0.00
Z588	0.00	82.62	72.62	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z589	0.00	82.62	72.62	0.00
Z590	0.00	82.62	72.62	0.00
Z591	0.00	82.62	72.62	0.00
Z592	0.00	82.62	72.62	0.00
Z593	0.00	82.68	72.68	0.00
Z594	0.00	82.69	72.69	0.00
Z595	0.00	82.74	72.74	0.00
Z596	0.00	82.69	72.69	0.00
Z597	0.00	82.69	72.69	0.00
Z598	0.00	82.69	72.69	0.00
Z599	0.00	82.69	72.69	0.00
Z600	0.00	82.69	72.69	0.00
Z601	0.00	82.70	72.70	0.00
Z602	0.00	82.70	72.70	0.00
Z603	0.00	82.70	72.70	0.00
Z604	0.00	82.71	72.71	0.00
Z605	0.00	82.71	72.71	0.00
Z606	0.00	82.71	72.71	0.00
Z607	0.00	82.71	72.71	0.00
Z608	0.00	82.70	72.70	0.00
Z609	0.00	82.70	72.70	0.00
Z610	0.00	82.70	72.70	0.00
Z611	0.00	82.70	72.70	0.00
Z612	0.00	82.70	72.70	0.00
Z613	0.00	82.70	72.70	0.00
Z614	0.00	82.70	72.70	0.00
Z615	0.00	82.70	72.70	0.00
Z616	0.00	82.70	72.70	0.00
Z617	0.00	82.70	72.70	0.00
Z618	0.00	82.70	72.70	0.00
Z619	0.00	82.70	72.70	0.00
Z620	0.00	82.70	72.70	0.00
Z621	0.00	82.70	72.70	0.00
Z622	0.00	82.70	72.70	0.00
Z623	0.00	82.70	72.70	0.00
Z624	0.00	82.70	72.70	0.00
Z625	0.00	82.70	72.70	0.00
Z626	0.00	82.70	72.70	0.00
Z627	0.00	82.70	72.70	0.00
Z628	0.00	82.70	72.70	0.00
Z629	0.00	82.70	72.70	0.00
Z630	0.00	82.70	72.70	0.00
Z631	0.00	82.70	72.70	0.00
Z632	0.00	82.70	72.70	0.00
Z633	0.00	82.70	72.70	0.00
Z634	0.00	82.70	72.70	0.00
Z517	0.00	82.71	72.71	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z635	0.00	82.72	72.72	0.00
Z636	0.00	82.73	72.73	0.00
Z637	0.00	82.73	72.73	0.00
Z638	0.00	82.73	72.73	0.00
Z639	0.00	82.73	72.73	0.00
Z640	0.00	82.71	72.71	0.00
Z641	0.00	82.72	72.72	0.00
Z642	0.00	82.72	72.72	0.00
Z643	0.00	82.72	72.72	0.00
Z644	0.00	82.72	72.72	0.00
Z645	0.00	82.72	72.72	0.00
Z646	0.00	82.72	72.72	0.00
Z647	0.00	82.72	72.72	0.00
Z648	0.00	82.72	72.72	0.00
Z649	0.00	82.73	72.73	0.00
Z650	0.00	82.73	72.73	0.00
Z651	0.00	82.73	72.73	0.00
Z652	0.00	82.73	72.73	0.00
Z653	0.00	82.73	72.73	0.00
Z654	0.00	82.73	72.73	0.00
Z655	0.00	82.73	72.73	0.00
Z656	0.00	82.81	72.81	0.00
Z657	0.00	82.90	72.90	0.00
Z658	0.00	82.93	72.93	0.00
Z659	0.00	82.97	72.97	0.00
Z660	0.00	83.02	73.02	0.00
Z661	0.00	83.06	73.06	0.00
Z662	0.00	83.18	73.18	0.00
Z663	0.00	83.22	73.22	0.00
Z664	0.00	83.33	73.33	0.00
Z665	0.00	83.41	73.41	0.00
Z666	0.00	83.47	73.47	0.00
Z667	0.00	83.47	73.47	0.00
Z668	0.00	83.47	73.47	0.00
Z669	0.00	83.41	73.41	0.00
Z670	0.00	83.41	73.41	0.00
Z671	0.00	83.41	73.41	0.00
Z672	0.00	83.41	73.41	0.00
Z673	0.00	83.41	73.41	0.00
Z674	0.00	83.41	73.41	0.00
Z675	0.00	83.41	73.41	0.00
Z676	0.00	83.41	73.41	0.00
Z677	0.00	83.41	73.41	0.00
Z678	0.00	83.41	73.41	0.00
Z679	0.00	83.41	73.41	0.00
Z680	0.00	83.41	73.41	0.00
Z681	0.00	83.41	73.41	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z682	0.00	83.41	73.41	0.00
Z683	0.00	83.41	73.41	0.00
Z684	0.00	83.41	73.41	0.00
Z685	0.00	83.41	73.41	0.00
Z686	0.00	83.41	73.41	0.00
Z687	0.00	83.41	73.41	0.00
Z688	0.00	83.41	73.41	0.00
Z689	0.00	83.41	73.41	0.00
Z690	0.00	83.41	73.41	0.00
Z691	0.00	83.41	73.41	0.00
Z692	0.00	83.33	73.33	0.00
Z693	0.00	83.33	73.33	0.00
Z694	0.00	83.33	73.33	0.00
Z695	0.00	83.33	73.33	0.00
Z696	0.00	83.33	73.33	0.00
Z697	0.00	83.33	73.33	0.00
Z698	0.00	83.33	73.33	0.00
Z699	0.00	83.33	73.33	0.00
Z700	0.00	83.33	73.33	0.00
Z701	0.00	83.33	73.33	0.00
Z702	0.00	83.33	73.33	0.00
Z703	0.00	83.22	73.22	0.00
Z704	0.00	83.22	73.22	0.00
Z705	0.00	83.22	73.22	0.00
Z706	0.00	83.22	73.22	0.00
Z707	0.00	83.22	73.22	0.00
Z708	0.00	83.22	73.22	0.00
Z709	0.00	83.22	73.22	0.00
Z710	0.00	83.22	73.22	0.00
Z711	0.00	83.22	73.22	0.00
Z712	0.00	83.22	73.22	0.00
Z713	0.00	83.22	73.22	0.00
Z714	0.00	83.22	73.22	0.00
Z715	0.00	83.22	73.22	0.00
Z716	0.00	83.18	73.18	0.00
Z717	0.00	83.18	73.18	0.00
Z718	0.00	83.18	73.18	0.00
Z719	0.00	83.18	73.18	0.00
Z720	0.00	83.18	73.18	0.00
Z721	0.00	83.18	73.18	0.00
Z722	0.00	83.18	73.18	0.00
Z723	0.00	83.18	73.18	0.00
Z724	0.00	83.18	73.18	0.00
Z725	0.00	83.18	73.18	0.00
Z726	0.00	83.18	73.18	0.00
Z727	0.00	83.18	73.18	0.00
Z728	0.00	82.90	72.90	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z729	0.00	82.90	72.90	0.00
Z730	0.00	82.90	72.90	0.00
Z731	0.00	82.90	72.90	0.00
Z732	0.00	82.90	72.90	0.00
Z733	0.00	82.90	72.90	0.00
Z734	0.00	82.90	72.90	0.00
Z735	0.00	82.90	72.90	0.00
Z736	0.00	82.90	72.90	0.00
Z737	0.00	82.90	72.90	0.00
Z738	0.00	82.90	72.90	0.00
Z739	0.00	82.90	72.90	0.00
Z740	0.00	82.90	72.90	0.00
Z741	0.00	82.90	72.90	0.00
Z742	0.00	82.90	72.90	0.00
Z743	0.00	82.90	72.90	0.00
Z744	0.00	82.90	72.90	0.00
Z745	0.00	82.90	72.90	0.00
Z746	0.00	82.90	72.90	0.00
Z747	0.00	82.90	72.90	0.00
Z748	0.00	82.81	72.81	0.00
Z749	0.00	82.81	72.81	0.00
Z750	0.00	82.81	72.81	0.00
Z751	0.00	82.81	72.81	0.00
Z752	0.00	82.81	72.81	0.00
Z753	0.00	82.81	72.81	0.00
Z754	0.00	82.81	72.81	0.00
Z755	0.00	82.81	72.81	0.00
Z756	0.00	82.81	72.81	0.00
Z757	0.00	82.81	72.81	0.00
Z758	0.00	82.81	72.81	0.00
Z759	0.00	82.81	72.81	0.00
Z760	0.00	82.81	72.81	0.00
Z761	0.00	82.81	72.81	0.00
Z762	0.00	82.81	72.81	0.00
Z763	0.00	82.81	72.81	0.00
Z764	0.00	82.81	72.81	0.00
Z765	0.00	82.81	72.81	0.00
Z766	0.00	82.81	72.81	0.00
Z767	0.00	82.81	72.81	0.00
Z768	0.00	82.81	72.81	0.00
Z769	0.00	82.81	72.81	0.00
Z770	0.00	82.81	72.81	0.00
Z771	0.00	82.81	72.81	0.00
Z772	0.00	82.81	72.81	0.00
Z773	0.00	82.81	72.81	0.00
Z774	0.00	82.81	72.81	0.00
Z775	0.00	82.81	72.81	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z776	0.00	82.81	72.81	0.00
Z777	0.00	82.81	72.81	0.00
Z778	0.00	82.81	72.81	0.00
Z779	0.00	82.81	72.81	0.00
Z780	0.00	82.81	72.81	0.00
Z781	0.00	82.97	72.97	0.00
Z782	0.00	82.98	72.98	0.00
Z783	0.00	82.99	72.99	0.00
Z784	0.00	82.99	72.99	0.00
Z785	0.00	82.98	72.98	0.00
Z786	0.00	83.00	73.00	0.00
Z787	0.00	83.00	73.00	0.00
Z788	0.00	83.00	73.00	0.00
Z789	0.00	83.00	73.00	0.00
Z790	0.00	83.00	73.00	0.00
Z791	0.00	83.02	73.02	0.00
Z792	0.00	83.03	73.03	0.00
Z793	0.00	83.05	73.05	0.00
Z794	0.00	83.05	73.05	0.00
Z795	0.00	83.06	73.06	0.00
Z796	0.00	83.06	73.06	0.00
Z797	0.00	83.05	73.05	0.00
Z798	0.00	83.05	73.05	0.00
Z799	0.00	83.03	73.03	0.00
Z800	0.00	83.02	73.02	0.00
Z801	0.00	83.00	73.00	0.00
Z802	0.00	83.00	73.00	0.00
Z803	0.00	83.00	73.00	0.00
Z804	0.00	83.00	73.00	0.00
Z805	0.00	82.99	72.99	0.00
Z806	0.00	82.99	72.99	0.00
Z807	0.00	82.98	72.98	0.00
Z808	0.00	82.97	72.97	0.00
Z809	0.00	83.06	73.06	0.00
Z810	0.00	83.00	73.00	0.00
Z811	0.00	83.00	73.00	0.00
Z812	0.00	83.00	73.00	0.00
Z813	0.00	83.00	73.00	0.00
Z814	0.00	83.00	73.00	0.00
Z815	0.00	83.00	73.00	0.00
Z816	0.00	83.00	73.00	0.00
Z817	0.00	83.00	73.00	0.00
Z818	0.00	83.00	73.00	0.00
Z819	0.00	83.00	73.00	0.00
Z820	0.00	83.00	73.00	0.00
Z821	0.00	83.00	73.00	0.00
Z822	0.00	83.00	73.00	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z823	0.00	83.00	73.00	0.00
Z824	0.00	83.00	73.00	0.00
Z825	0.00	82.98	72.98	0.00
Z826	0.00	82.98	72.98	0.00
Z827	0.00	82.98	72.98	0.00
Z828	0.00	82.98	72.98	0.00
Z829	0.00	82.98	72.98	0.00
Z830	0.00	82.98	72.98	0.00
Z831	0.00	82.98	72.98	0.00
Z832	0.00	82.98	72.98	0.00
Z833	0.00	82.98	72.98	0.00
Z834	0.00	82.98	72.98	0.00
Z835	0.00	82.98	72.98	0.00
Z836	0.00	82.98	72.98	0.00
Z837	0.00	82.98	72.98	0.00
Z838	0.00	82.98	72.98	0.00
Z839	0.00	82.98	72.98	0.00
Z840	0.00	82.98	72.98	0.00
Z841	0.00	82.98	72.98	0.00
Z842	0.00	82.98	72.98	0.00
Z843	0.00	82.98	72.98	0.00
Z844	0.00	82.98	72.98	0.00
Z845	0.00	82.98	72.98	0.00
Z846	0.00	82.98	72.98	0.00
Z847	0.00	82.98	72.98	0.00
Z848	0.00	82.98	72.98	0.00
Z849	0.00	82.98	72.98	0.00
Z850	0.00	83.06	73.06	0.00
Z851	0.00	83.06	73.06	0.00
Z852	0.00	83.06	73.06	0.00
Z853	0.00	83.06	73.06	0.00
Z854	0.00	83.06	73.06	0.00
Z855	0.00	83.06	73.06	0.00
Z856	0.00	83.06	73.06	0.00
Z857	0.00	83.06	73.06	0.00
Z858	0.00	83.06	73.06	0.00
Z859	0.00	83.06	73.06	0.00
Z860	0.00	83.06	73.06	0.00
Z861	0.00	83.06	73.06	0.00
Z862	0.00	83.06	73.06	0.00
Z863	0.00	83.06	73.06	0.00
Z864	0.00	83.06	73.06	0.00
Z865	0.00	83.06	73.06	0.00
Z866	0.00	83.06	73.06	0.00
Z867	0.00	83.06	73.06	0.00
Z868	0.00	83.06	73.06	0.00
Z869	0.00	83.06	73.06	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z870	0.00	83.06	73.06	0.00
Z871	0.00	83.06	73.06	0.00
Z872	0.00	83.06	73.06	0.00
Z873	0.00	83.06	73.06	0.00
Z874	0.00	83.06	73.06	0.00
Z875	0.00	75.33	65.33	0.00
Z876	0.00	71.74	61.74	0.00
Z877	0.00	71.32	61.32	0.00
Z878	0.00	71.13	61.13	0.00
Z879	0.00	70.69	60.69	0.00
Z880	0.00	70.37	60.37	0.00
Z881	3.06	70.30	60.30	0.00
Z882	0.00	75.00	65.00	0.00
Z883	0.00	74.79	64.79	0.00
Z884	0.00	73.47	63.47	0.00
Z885	0.00	72.84	62.84	0.00
Z886	0.00	72.75	62.75	0.00
Z887	3.06	72.63	62.63	0.00
Z888	0.00	68.74	58.74	0.00
Z889	0.00	68.08	58.08	0.00
Z890	0.00	67.83	57.83	0.00
Z891	0.00	67.56	57.56	0.00
Z892	0.00	67.46	57.46	0.00
Z893	0.00	67.41	57.41	0.00
Z894	0.00	67.40	57.40	0.00
Z895	0.00	68.25	58.25	0.00
Z896	0.00	67.51	57.51	0.00
Z897	0.00	66.22	56.22	0.00
Z898	0.00	66.06	56.06	0.00
Z899	0.00	65.52	55.52	0.00
Z900	0.00	65.43	55.43	0.00
Z901	3.06	65.38	55.38	0.00
Z902	0.00	62.05	52.05	0.00
Z903	0.00	61.99	51.99	0.00
Z904	0.00	61.84	51.84	0.00
Z905	0.00	61.82	51.82	0.00
Z906	0.00	61.80	51.80	0.00
Z907	0.00	61.61	51.61	0.00
Z908	0.00	61.48	51.48	0.00
Z909	0.00	61.28	51.28	0.00
Z910	0.00	61.18	51.18	0.00
Z911	0.00	61.17	51.17	0.00
Z912	0.00	61.15	51.15	0.00
Z913	0.00	61.14	51.14	0.00
Z914	0.00	61.14	51.14	0.00
Z915	0.00	61.14	51.14	0.00
Z916	0.00	61.14	51.14	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z917	0.00	61.14	51.14	0.00
Z918	0.00	61.14	51.14	0.00
Z919	0.00	61.15	51.15	0.00
Z920	0.00	61.23	51.23	0.00
Z921	0.00	61.25	51.25	0.00
Z922	0.00	61.28	51.28	0.00
Z923	0.00	61.37	51.37	0.00
Z924	0.00	61.45	51.45	0.00
Z925	0.00	61.48	51.48	0.00
Z926	0.00	61.75	51.75	0.00
Z927	0.00	62.13	52.13	0.00
Z928	0.00	62.34	52.34	0.00
Z929	0.00	62.49	52.49	0.00
Z930	0.00	63.39	53.39	0.00
Z931	0.00	63.48	53.48	0.00
Z932	0.00	64.08	54.08	0.00
Z933	0.00	65.13	55.13	0.00
Z934	0.00	64.97	54.97	0.00
Z935	0.00	65.13	55.13	0.00
Z936	0.00	64.98	54.98	0.00
Z937	0.00	64.96	54.96	0.00
Z938	0.00	63.54	53.54	0.00
Z939	0.00	63.16	53.16	0.00
Z940	3.06	61.62	51.62	0.00
Z942	0.00	56.97	46.97	0.00
Z943	0.00	56.36	46.36	0.00
Z944	0.00	55.92	45.92	0.00
Z945	0.00	55.65	45.65	0.00
Z946	0.00	55.81	45.81	0.00
Z947	0.00	56.03	46.03	0.00
Z948	0.00	56.79	46.79	0.00
Z949	0.00	59.29	49.29	0.00
Z950	0.00	59.78	49.78	0.00
Z951	0.00	60.90	50.90	0.00
Z952	0.00	61.08	51.08	0.00
Z953	0.00	61.18	51.18	0.00
Z954	0.00	62.05	52.05	0.00
Z955	0.00	62.17	52.17	0.00
Z956	0.00	62.46	52.46	0.00
Z957	0.00	63.47	53.47	0.00
Z958	0.00	66.02	56.02	0.00
Z959	0.00	67.24	57.24	0.00
Z960	0.00	69.64	59.64	0.00
Z961	3.06	72.74	62.74	0.00
Z962	3.06	72.83	62.83	0.00
Z963	3.06	72.83	62.83	0.00
Z964	3.06	73.46	63.46	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z965	3.06	73.46	63.46	0.00
Z966	3.06	74.78	64.78	0.00
Z967	3.06	74.99	64.99	0.00
Z968	3.06	70.36	60.36	0.00
Z969	3.06	70.68	60.68	0.00
Z970	3.06	71.12	61.12	0.00
Z971	0.00	68.65	58.65	0.00
Z972	3.06	65.42	55.42	0.00
Z973	3.06	65.42	55.42	0.00
Z974	3.06	66.05	56.05	0.00
Z975	3.06	61.98	51.98	0.00
Z976	3.06	61.83	51.83	0.00
Z977	3.06	61.81	51.81	0.00
Z978	3.06	61.79	51.79	0.00
Z979	3.06	61.60	51.60	0.00
Z980	3.06	61.47	51.47	0.00
Z981	3.06	61.27	51.27	0.00
Z982	3.06	64.96	54.96	0.00
Z983	3.06	64.07	54.07	0.00
Z984	3.06	63.47	53.47	0.00
Z985	3.06	63.34	53.34	0.00
Z986	3.06	62.48	52.48	0.00
Z987	3.06	62.33	52.33	0.00
Z988	3.06	62.12	52.12	0.00
Z989	3.06	61.74	51.74	0.00
Z990	3.06	61.44	51.44	0.00
Z991	3.06	61.36	51.36	0.00
Z992	3.06	61.27	51.27	0.00
Z993	3.06	61.24	51.24	0.00
Z994	3.06	61.22	51.22	0.00
Z995	3.06	61.13	51.13	0.00
Z996	3.06	61.13	51.13	0.00
Z997	3.06	61.13	51.13	0.00
Z998	3.06	61.13	51.13	0.00
Z999	3.06	61.13	51.13	0.00
Z1000	3.06	61.13	51.13	0.00
Z1001	3.06	61.14	51.14	0.00
Z1002	3.06	61.16	51.16	0.00
Z1003	3.06	68.24	58.24	0.00
Z1004	3.06	67.50	57.50	0.00
Z1005	3.06	67.40	57.40	0.00
Z1006	3.06	67.45	57.45	0.00
Z1007	3.06	67.55	57.55	0.00
Z1008	3.06	67.55	57.55	0.00
Z1009	3.06	67.82	57.82	0.00
Z1010	3.06	68.07	58.07	0.00
Z1011	3.06	68.64	58.64	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1012	0.00	65.26	55.26	0.00
Z1013	0.00	61.20	51.20	0.00
Z1014	0.00	60.05	50.05	0.00
Z1015	0.00	57.15	47.15	0.00
Z1016	0.00	56.74	46.74	0.00
Z1017	0.00	55.71	45.71	0.00
Z1018	0.00	55.44	45.44	0.00
Z1019	0.00	55.28	45.28	0.00
Z1020	3.06	55.20	45.20	0.00
Z1021	0.00	55.68	45.68	0.00
Z1022	3.06	55.57	45.57	0.00
Z1023	3.06	65.25	55.25	0.00
Z1024	3.06	65.20	55.20	0.00
Z1025	3.06	61.19	51.19	0.00
Z1026	3.06	60.04	50.04	0.00
Z1027	3.06	57.14	47.14	0.00
Z1028	3.06	56.73	46.73	0.00
Z1029	3.06	55.43	45.43	0.00
Z1030	3.06	55.27	45.27	0.00
Z1031	3.06	55.67	45.67	0.00
Z1032	3.06	59.16	49.16	0.00
Z1033	0.00	59.16	49.16	0.00
Z1034	0.00	59.37	49.37	0.00
Z1035	0.00	60.09	50.09	0.00
Z1036	0.00	60.32	50.32	0.00
Z1037	0.00	61.26	51.26	0.00
Z1038	0.00	61.61	51.61	0.00
Z1039	3.06	59.15	49.15	0.00
Z1040	3.06	59.36	49.36	0.00
Z1041	3.06	60.08	50.08	0.00
Z1042	3.06	60.31	50.31	0.00
Z1043	3.06	61.25	51.25	0.00
Z1044	3.06	61.60	51.60	0.00
Z1045	3.06	61.60	51.60	0.00
Z1046	0.00	60.50	50.50	0.00
Z1047	0.00	59.92	49.92	0.00
Z1048	0.00	59.19	49.19	0.00
Z1049	0.00	58.83	48.83	0.00
Z1050	0.00	58.20	48.20	0.00
Z1051	0.00	58.07	48.07	0.00
Z1052	0.00	56.49	46.49	0.00
Z1053	0.00	56.31	46.31	0.00
Z1054	0.00	56.25	46.25	0.00
Z1055	3.06	56.22	46.22	0.00
Z1056	3.06	56.24	46.24	0.00
Z1057	3.06	56.30	46.30	0.00
Z1058	3.06	56.48	46.48	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z11059	3.06	58.06	48.06	0.00
Z11060	3.06	58.19	48.19	0.00
Z11061	3.06	58.82	48.82	0.00
Z11062	3.06	59.18	49.18	0.00
Z11063	3.06	59.91	49.91	0.00
Z11064	3.06	60.49	50.49	0.00
Z11065	0.00	60.87	50.87	0.00
Z11066	0.00	59.47	49.47	0.00
Z11067	0.00	58.60	48.60	0.00
Z11068	0.00	58.55	48.55	0.00
Z11069	0.00	58.48	48.48	0.00
Z11070	3.06	58.48	48.48	0.00
Z11071	3.06	58.47	48.47	0.00
Z11072	3.06	58.54	48.54	0.00
Z11073	3.06	58.59	48.59	0.00
Z11074	3.06	59.46	49.46	0.00
Z11075	3.06	60.86	50.86	0.00
Z11076	0.00	61.16	51.16	0.00
Z11077	0.00	58.84	48.84	0.00
Z11078	0.00	58.25	48.25	0.00
Z11079	0.00	57.98	47.98	0.00
Z11080	0.00	57.56	47.56	0.00
Z11081	3.06	57.50	47.50	0.00
Z11082	3.06	61.15	51.15	0.00
Z11083	3.06	61.15	51.15	0.00
Z11084	3.06	58.83	48.83	0.00
Z11085	3.06	58.24	48.24	0.00
Z11086	3.06	57.97	47.97	0.00
Z11087	3.06	57.55	47.55	0.00
Z11088	0.00	64.58	54.58	0.00
Z11089	0.00	63.92	53.92	0.00
Z11090	0.00	63.26	53.26	0.00
Z11091	0.00	62.66	52.66	0.00
Z11092	0.00	62.48	52.48	0.00
Z11093	3.06	62.46	52.46	0.00
Z11094	0.00	62.54	52.54	0.00
Z11095	0.00	62.53	52.53	0.00
Z11096	3.06	62.48	52.48	0.00
Z11097	3.06	64.57	54.57	0.00
Z11098	3.06	63.91	53.91	0.00
Z11099	3.06	63.25	53.25	0.00
Z11100	3.06	62.65	52.65	0.00
Z11101	3.06	62.47	52.47	0.00
Z11102	3.06	62.51	52.51	0.00
Z11103	3.06	63.15	53.15	0.00
Z11104	0.00	56.26	46.26	0.00
Z11105	3.06	56.17	46.17	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z11106	3.06	56.25	46.25	0.00
Z11107	3.06	56.25	46.25	0.00
Z11108	0.00	60.71	50.71	0.00
Z11109	0.00	59.84	49.84	0.00
Z11110	0.00	59.82	49.82	0.00
Z11111	0.00	59.94	49.94	0.00
Z11112	0.00	59.40	49.40	0.00
Z11113	0.00	59.26	49.26	0.00
Z11114	3.06	59.26	49.26	0.00
Z11115	3.06	59.25	49.25	0.00
Z11116	3.06	59.39	49.39	0.00
Z11117	3.06	59.93	49.93	0.00
Z11118	3.06	59.81	49.81	0.00
Z11119	3.06	59.39	49.39	0.00
Z11120	3.06	56.96	46.96	0.00
Z11121	3.06	56.96	46.96	0.00
Z11122	3.06	56.35	46.35	0.00
Z11123	3.06	56.35	46.35	0.00
Z11124	3.06	55.91	45.91	0.00
Z11125	3.06	55.91	45.91	0.00
Z11126	3.06	55.64	45.64	0.00
Z11127	3.06	55.64	45.64	0.00
Z11128	3.06	55.80	45.80	0.00
Z11129	3.06	56.02	46.02	0.00
Z11130	0.00	56.76	46.76	0.00
Z11131	3.06	56.75	46.75	0.00
Z11132	3.06	56.75	46.75	0.00
Z11133	3.06	59.28	49.28	0.00
Z11134	3.06	59.77	49.77	0.00
Z11135	3.06	60.89	50.89	0.00
Z11136	3.06	61.07	51.07	0.00
Z11137	3.06	61.17	51.17	0.00
Z11138	3.06	62.04	52.04	0.00
Z11139	3.06	62.04	52.04	0.00
Z11140	3.06	62.16	52.16	0.00
Z11141	3.06	62.45	52.45	0.00
Z11142	0.00	60.22	50.22	0.00
Z11143	0.00	59.67	49.67	0.00
Z11144	0.00	57.27	47.27	0.00
Z11145	0.00	57.19	47.19	0.00
Z11146	0.00	57.04	47.04	0.00
Z11147	0.00	57.01	47.01	0.00
Z11148	3.06	56.99	46.99	0.00
Z11149	3.06	57.00	47.00	0.00
Z11150	3.06	57.03	47.03	0.00
Z11151	3.06	57.18	47.18	0.00
Z11152	3.06	59.66	49.66	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1153	3.06	60.21	50.21	0.00
Z1154	0.00	56.08	46.08	0.00
Z1155	0.00	56.07	46.07	0.00
Z1156	3.06	56.03	46.03	0.00
Z1157	3.06	56.07	46.07	0.00
Z1158	3.06	56.06	46.06	0.00
Z1159	3.06	67.23	57.23	0.00
Z1160	0.00	57.98	47.98	0.00
Z1161	0.00	57.95	47.95	0.00
Z1162	0.00	56.89	46.89	0.00
Z1163	0.00	56.49	46.49	0.00
Z1164	3.06	57.97	47.97	0.00
Z1166	3.06	66.01	56.01	0.00
Z1167	3.06	57.94	47.94	0.00
Z1168	3.06	56.88	46.88	0.00
Z1169	3.06	56.88	46.88	0.00
Z1170	3.06	56.48	46.48	0.00
Z1171	3.06	56.48	46.48	0.00
Z1172	0.00	69.27	59.27	0.00
Z1173	3.06	69.21	59.21	0.00
Z1174	3.06	69.26	59.26	0.00
Z1175	0.00	69.34	59.34	0.00
Z1176	0.00	69.27	59.27	0.00
Z1177	0.00	69.08	59.08	0.00
Z1178	0.00	69.03	59.03	0.00
Z1179	0.00	68.66	58.66	0.00
Z1180	0.00	68.54	58.54	0.00
Z1181	3.06	68.53	58.53	0.00
Z1182	3.06	69.07	59.07	0.00
Z1183	3.06	69.02	59.02	0.00
Z1184	3.06	68.65	58.65	0.00
Z1185	3.06	68.53	58.53	0.00
Z1186	0.00	68.41	58.41	0.00
Z1187	0.00	68.03	58.03	0.00
Z1188	0.00	67.98	57.98	0.00
Z1189	0.00	67.78	57.78	0.00
Z1190	0.00	67.76	57.76	0.00
Z1191	3.06	67.73	57.73	0.00
Z1192	3.06	67.75	57.75	0.00
Z1193	3.06	67.77	57.77	0.00
Z1194	3.06	67.97	57.97	0.00
Z1195	3.06	68.02	58.02	0.00
Z1196	0.00	68.26	58.26	0.00
Z1197	0.00	68.22	58.22	0.00
Z1198	0.00	68.07	58.07	0.00
Z1199	0.00	67.94	57.94	0.00
Z1200	0.00	67.90	57.90	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1201	3.06	67.89	57.89	0.00
Z1202	0.00	67.98	57.98	0.00
Z1203	0.00	67.62	57.62	0.00
Z1204	0.00	67.58	57.58	0.00
Z1205	3.06	67.57	57.57	0.00
Z1206	3.06	68.25	58.25	0.00
Z1207	3.06	68.21	58.21	0.00
Z1208	3.06	67.97	57.97	0.00
Z1209	3.06	67.93	57.93	0.00
Z1210	3.06	67.89	57.89	0.00
Z1211	3.06	67.57	57.57	0.00
Z1212	3.06	67.61	57.61	0.00
Z1213	3.06	60.31	50.31	0.00
Z1214	0.00	64.96	54.96	0.00
Z1215	0.00	84.76	74.76	0.00
Z1216	0.00	84.76	74.76	0.00
Z1217	0.00	84.22	74.22	0.00
Z1218	0.00	83.92	73.92	0.00
Z1219	0.00	83.78	73.78	0.00
Z1220	0.00	83.67	73.67	0.00
Z1221	0.00	83.57	73.57	0.00
Z1222	0.00	83.55	73.55	0.00
Z1223	0.00	83.53	73.53	0.00
Z1224	0.00	83.52	73.52	0.00
Z1225	0.00	83.02	73.02	0.00
Z1226	0.00	83.02	73.02	0.00
Z1227	0.00	83.02	73.02	0.00
Z1228	0.00	83.02	73.02	0.00
Z1229	0.00	83.02	73.02	0.00
Z1230	0.00	83.02	73.02	0.00
Z1231	0.00	83.02	73.02	0.00
Z1232	0.00	82.93	72.93	0.00
Z1233	0.00	82.93	72.93	0.00
Z1234	0.00	82.93	72.93	0.00
Z1235	0.00	82.93	72.93	0.00
Z1236	0.00	82.93	72.93	0.00
Z1237	0.00	82.93	72.93	0.00
Z1238	0.00	82.93	72.93	0.00
Z1239	0.00	78.19	68.19	0.00
Z1240	0.00	78.19	68.19	0.00
Z1241	0.00	78.19	68.19	0.00
Z1242	0.00	78.19	68.19	0.00
Z1243	0.00	56.95	46.95	0.00
Z1244	0.00	58.04	48.04	0.00
Z1245	0.00	64.45	54.45	0.00
Z1246	0.00	61.63	51.63	0.00
Z1247	0.00	57.02	47.02	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality	Status
Z1248 S1	0.00 -902.70	72.65 10.00	62.65 0.00	0.00	0.00 Reservoir
Link Results:					
Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
G20	902.70	3.19	12.91		Open
G1	714.29	2.53	8.15		Open
R3	188.41	1.50	15.95		Open
R4	185.35	1.47	4.66		Open
R5	182.29	1.45	4.51		Open
R6	179.23	1.43	4.36		Open
R7	176.17	1.40	4.22		Open
R8	173.11	1.38	4.08		Open
R9	170.05	1.35	3.94		Open
R10	166.99	1.33	3.80		Open
R11	163.93	1.30	3.67		Open
R12	160.87	1.28	3.54		Open
R13	157.81	1.26	3.41		Open
R14	154.75	1.23	3.28		Open
R15	151.69	1.21	3.15		Open
R16	148.63	1.18	3.03		Open
R17	145.57	1.16	2.91		Open
R18	87.43	0.70	1.09		Open
R19	84.37	0.67	1.02		Open
R20	81.31	0.65	0.95		Open
R21	78.25	0.62	0.88		Open
R22	75.19	0.60	0.82		Open
R23	72.13	0.57	0.76		Open
R24	69.07	0.55	0.70		Open
R25	66.01	0.53	0.64		Open
R26	62.95	0.50	0.58		Open
R27	59.89	0.48	0.53		Open
R28	56.83	0.45	0.48		Open
R56	3.06	0.42	2.04		Open
R57	3.06	0.42	2.04		Open
R58	3.06	0.42	2.04		Open
R59	3.06	0.42	2.04		Open
R60	3.06	0.42	2.04		Open
R61	3.06	0.42	2.04		Open
R62	3.06	0.42	2.04		Open
R63	3.06	0.42	2.04		Open
R64	3.06	0.40	1.87		Open
R65	3.06	0.42	2.04		Open
R66	3.06	0.42	2.04		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R67	3.06	0.42	2.04		Open
R68	3.06	0.42	2.04		Open
R69	3.06	0.42	2.04		Open
R29	58.14	3.72	213.86		Open
R71	3.06	0.42	2.04		Open
R72	3.06	0.42	2.04		Open
R73	3.06	0.42	2.04		Open
R74	3.06	0.42	2.04		Open
R75	3.06	0.42	2.04		Open
R76	3.06	0.42	2.04		Open
R77	3.06	0.42	2.04		Open
R78	3.06	0.42	2.04		Open
R79	3.06	0.42	2.04		Open
R80	3.06	0.42	2.04		Open
R81	3.06	0.42	2.04		Open
R30	27.54	1.76	47.34		Open
R31	24.48	1.57	14.43		Open
R32	21.42	1.37	11.27		Open
R33	18.36	1.18	8.49		Open
R34	15.30	0.98	6.08		Open
R35	12.24	0.78	4.05		Open
R36	9.18	0.59	2.40		Open
R37	6.12	0.39	1.16		Open
R38	3.06	0.20	0.34		Open
R91	3.06	0.42	2.04		Open
R92	3.06	0.42	2.04		Open
R93	3.06	0.42	2.04		Open
R94	3.06	0.42	2.04		Open
R95	3.06	0.42	2.04		Open
R96	3.06	0.42	2.04		Open
R97	3.06	0.42	2.04		Open
R98	3.06	0.42	2.04		Open
R39	27.54	1.76	17.94		Open
R40	24.48	1.57	14.43		Open
R41	21.42	1.37	11.27		Open
R42	18.36	1.18	8.49		Open
R43	15.30	0.98	6.08		Open
R44	12.24	0.78	4.05		Open
R45	9.18	0.59	2.40		Open
R46	6.12	0.39	1.16		Open
R47	3.06	0.20	0.34		Open
R107	3.06	0.42	2.04		Open
R108	3.06	0.42	2.04		Open
R109	3.06	0.42	2.04		Open
R110	3.06	0.42	2.04		Open
R111	3.06	0.42	2.04		Open
R112	3.06	0.42	2.04		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R113	3.06	0.42	2.04	Open	
R114	3.06	0.42	2.04	Open	
R49	53.77	0.43	0.43	Open	
R50	53.77	0.43	0.43	Open	
R51	53.77	0.43	0.43	Open	
R52	53.77	0.43	0.43	Open	
R53	53.77	0.43	0.43	Open	
R54	53.77	0.43	0.43	Open	
R55	0.00	0.00	0.00	Open	
R120	0.00	0.00	0.00	Open	
R121	0.00	0.00	0.00	Open	
R122	0.00	0.00	0.00	Open	
R123	0.00	0.00	0.00	Open	
R124	3.06	0.42	2.04	Open	
R125	0.00	0.00	0.00	Open	
R126	0.00	0.00	0.00	Open	
R127	0.00	0.00	0.00	Open	
R82	53.77	0.43	0.43	Open	
R83	53.77	0.43	0.43	Open	
R84	53.77	0.43	0.43	Open	
R85	53.77	0.43	0.43	Open	
R86	53.77	0.43	0.43	Open	
R87	53.77	0.43	0.43	Open	
R88	53.77	0.43	0.43	Open	
R89	53.77	0.43	0.43	Open	
R90	53.77	0.43	0.43	Open	
R99	53.77	0.43	0.43	Open	
R100	53.77	0.43	4.85	Open	
R101	0.00	0.00	0.00	Open	
R102	0.00	0.00	0.00	Open	
R103	0.00	0.00	0.00	Open	
R104	0.00	0.00	0.00	Open	
R105	0.00	0.00	0.00	Open	
R106	0.00	0.00	0.00	Open	
R115	0.00	0.00	0.00	Open	
R116	0.00	0.00	0.00	Open	
R117	0.00	0.00	0.00	Open	
R118	0.00	0.00	0.00	Open	
R119	0.00	0.00	0.00	Open	
R128	0.00	0.00	0.00	Open	
R129	0.00	0.00	0.00	Open	
R130	0.00	0.00	0.00	Open	
GI31	195.58	0.69	0.66	Open	
R131	27.54	1.76	89.25	Open	
R132	12.24	0.78	6.91	Open	
R133	9.18	0.59	2.40	Open	
R134	6.12	0.39	1.16	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R135	3.06	0.20	0.34	Open	
R136	15.30	0.98	6.08	Open	
R137	12.24	0.78	4.05	Open	
R138	9.18	0.59	2.40	Open	
R139	6.12	0.39	1.16	Open	
R140	3.06	0.20	0.34	Open	
R141	3.06	0.42	2.04	Open	
R142	3.06	0.42	2.04	Open	
R143	3.06	0.42	2.04	Open	
R144	3.06	0.42	2.04	Open	
R145	3.06	0.42	2.04	Open	
R146	3.06	0.42	2.04	Open	
R147	3.06	0.42	2.04	Open	
GI48	168.04	0.59	0.49	Open	
GI49	100.72	0.36	0.19	Open	
R149	0.00	0.00	0.00	Open	
R150	0.00	0.00	0.00	Open	
R151	0.00	0.00	0.00	Open	
R152	0.00	0.00	0.00	Open	
R153	0.00	0.00	0.00	Open	
R154	0.00	0.00	0.00	Open	
R155	0.00	0.00	0.00	Open	
R156	0.00	0.00	0.00	Open	
R157	0.00	0.00	0.00	Open	
R158	0.00	0.00	0.00	Open	
R159	0.00	0.00	0.00	Open	
R160	0.00	0.00	0.00	Open	
R161	0.00	0.00	0.00	Open	
R162	0.00	0.00	0.00	Open	
R163	0.00	0.00	0.00	Open	
R164	0.00	0.00	0.00	Open	
R165	0.00	0.00	0.00	Open	
R166	0.00	0.00	0.00	Open	
R167	0.00	0.00	0.00	Open	
R168	0.00	0.00	0.00	Open	
R169	0.00	0.00	0.00	Open	
GI70	100.72	0.36	0.19	Open	
GI71	95.74	0.76	1.54	Open	
GI72	86.35	0.69	1.07	Open	
R172	0.00	0.00	0.00	Open	
R173	0.00	0.00	0.00	Open	
R174	0.00	0.00	0.00	Open	
R175	0.00	0.00	0.00	Open	
R176	0.00	0.00	0.00	Open	
R177	0.00	0.00	0.00	Open	
R178	0.00	0.00	0.00	Open	
R179	0.00	0.00	0.00	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R180	0.00	0.00	0.00	0.00	Open
R181	0.00	0.00	0.00	0.00	Open
R182	0.00	0.00	0.00	0.00	Open
R183	0.00	0.00	0.00	0.00	Open
R184	0.00	0.00	0.00	0.00	Open
R185	0.00	0.00	0.00	0.00	Open
R186	0.00	0.00	0.00	0.00	Open
R187	0.00	0.00	0.00	0.00	Open
R188	0.00	0.00	0.00	0.00	Open
R189	0.00	0.00	0.00	0.00	Open
R190	0.00	0.00	0.00	0.00	Open
R191	0.00	0.00	0.00	0.00	Open
R192	0.00	0.00	0.00	0.00	Open
R193	0.00	0.00	0.00	0.00	Open
R194	0.00	0.00	0.00	0.00	Open
R195	0.00	0.00	0.00	0.00	Open
R196	0.00	0.00	0.00	0.00	Open
R197	0.00	0.00	0.00	0.00	Open
R198	0.00	0.00	0.00	0.00	Open
G199	86.35	0.69	1.07	1.07	Open
G200	86.35	0.69	1.18	1.18	Open
G201	-68.14	0.35	0.22	0.22	Open
G202	-68.14	0.35	0.22	0.22	Open
G203	-68.14	0.35	0.22	0.22	Open
R200	0.00	0.00	0.00	0.00	Open
R201	0.00	0.00	0.00	0.00	Open
R202	0.00	0.00	0.00	0.00	Open
R203	0.00	0.00	0.00	0.00	Open
R204	0.00	0.00	0.00	0.00	Open
R205	0.00	0.00	0.00	0.00	Open
R206	0.00	0.00	0.00	0.00	Open
R207	0.00	0.00	0.00	0.00	Open
R208	0.00	0.00	0.00	0.00	Open
R209	0.00	0.00	0.00	0.00	Open
R210	0.00	0.00	0.00	0.00	Open
R211	0.00	0.00	0.00	0.00	Open
R212	0.00	0.00	0.00	0.00	Open
R213	0.00	0.00	0.00	0.00	Open
R214	0.00	0.00	0.00	0.00	Open
R215	0.00	0.00	0.00	0.00	Open
R216	0.00	0.00	0.00	0.00	Open
R217	0.00	0.00	0.00	0.00	Open
R218	0.00	0.00	0.00	0.00	Open
R219	0.00	0.00	0.00	0.00	Open
R220	0.00	0.00	0.00	0.00	Open
R221	0.00	0.00	0.00	0.00	Open
R222	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R223	0.00	0.00	0.00	0.00	Open
R224	0.00	0.00	0.00	0.00	Open
R225	0.00	0.00	0.00	0.00	Open
R226	0.00	0.00	0.00	0.00	Open
R48	67.32	2.20	19.71	19.71	Open
R70	67.32	2.20	18.08	18.08	Open
R148	64.26	2.10	16.58	16.58	Open
R170	55.08	1.80	12.44	12.44	Open
R171	52.02	3.33	121.70	121.70	Open
R199	48.96	3.14	52.53	52.53	Open
R227	45.90	2.94	46.53	46.53	Open
R228	42.84	2.74	40.88	40.88	Open
R229	39.78	2.55	35.58	35.58	Open
R230	33.66	2.16	26.05	26.05	Open
R231	27.54	1.76	17.94	17.94	Open
R232	24.48	1.57	14.43	14.43	Open
R233	21.42	1.37	11.27	11.27	Open
R234	12.24	0.78	7.14	7.14	Open
R235	6.12	0.39	1.16	1.16	Open
R236	3.06	0.20	0.34	0.34	Open
R237	9.18	0.59	12.97	12.97	Open
R238	6.12	0.39	1.16	1.16	Open
R239	3.06	0.42	2.04	2.04	Open
R240	58.14	1.90	13.76	13.76	Open
R241	3.06	0.42	2.04	2.04	Open
R242	3.06	0.20	0.34	0.34	Open
R243	3.06	0.42	2.04	2.04	Open
R244	3.06	0.42	2.04	2.04	Open
R245	3.06	0.42	2.04	2.04	Open
R246	3.06	0.42	2.04	2.04	Open
R247	3.06	0.42	2.04	2.04	Open
R248	3.06	0.42	2.04	2.04	Open
R249	3.06	0.42	2.04	2.04	Open
R250	3.06	0.42	2.04	2.04	Open
R251	3.06	0.42	2.04	2.04	Open
R252	3.06	0.42	2.04	2.04	Open
R253	3.06	0.42	2.04	2.04	Open
R254	3.06	0.42	2.04	2.04	Open
R255	9.18	0.59	2.40	2.40	Open
R256	3.06	0.42	2.04	2.04	Open
R257	3.06	0.42	2.04	2.04	Open
R258	3.06	0.42	2.04	2.04	Open
R259	3.06	0.42	2.04	2.04	Open
R260	3.06	0.42	2.04	2.04	Open
R261	3.06	0.42	2.04	2.04	Open
R263	18.36	1.18	8.49	8.49	Open
R264	15.30	0.98	6.08	6.08	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R265	12.24	0.78		4.05	Open
R266	9.18	0.59		2.40	Open
R267	6.12	0.39		1.16	Open
R268	3.06	0.20		0.34	Open
R269	-18.36	1.18		8.71	Open
R270	6.12	0.39		2.99	Open
R271	38.21	0.30		0.23	Open
R272	15.30	0.98		6.69	Open
R273	12.24	0.78		4.05	Open
R274	9.18	0.59		2.40	Open
R275	6.12	0.39		1.16	Open
R276	3.06	0.20		0.34	Open
R277	52.02	3.33		204.26	Open
R278	3.06	0.20		0.36	Open
R279	33.66	2.16		26.05	Open
R280	30.60	1.96		21.82	Open
R281	-13.81	0.11		0.04	Open
R282	3.06	0.42		2.04	Open
R283	3.06	0.42		2.04	Open
R284	3.06	0.42		2.04	Open
R285	3.06	0.42		2.04	Open
R286	3.06	0.42		2.04	Open
R287	3.06	0.42		2.04	Open
R288	3.06	0.42		2.04	Open
R289	3.06	0.42		2.04	Open
R290	3.06	0.42		2.04	Open
R291	3.06	0.42		2.04	Open
R292	3.06	0.42		2.04	Open
R293	3.06	0.42		2.04	Open
R294	-62.69	0.50		0.58	Open
R295	67.32	2.20		176.52	Open
R296	21.42	1.37		11.57	Open
R297	3.06	0.42		2.04	Open
R298	18.36	1.18		8.49	Open
R299	18.36	1.18		8.49	Open
R300	15.30	0.98		6.08	Open
R301	9.18	0.59		2.40	Open
R302	6.12	0.39		1.16	Open
R303	3.06	0.20		0.34	Open
R304	6.12	0.39		1.19	Open
R305	3.06	0.42		2.04	Open
R306	3.06	0.20		0.34	Open
R307	3.06	0.42		2.04	Open
R308	3.06	0.42		2.04	Open
R309	3.06	0.42		2.04	Open
R310	-130.01	1.03		2.34	Open
R311	45.90	1.50		8.87	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R312	39.78	1.30		6.81	Open
R313	36.72	2.35		36.90	Open
R314	33.66	2.16		26.05	Open
R315	30.60	1.96		21.82	Open
R316	27.54	1.76		17.94	Open
R317	24.48	1.57		14.43	Open
R318	21.42	1.37		11.27	Open
R319	15.30	0.98		6.08	Open
R320	12.24	0.78		4.05	Open
R321	9.18	0.59		2.40	Open
R322	6.12	0.39		1.16	Open
R323	3.06	0.42		2.04	Open
R324	3.06	0.42		2.04	Open
R325	3.06	0.42		2.04	Open
R326	3.06	0.42		2.04	Open
R327	3.06	0.42		2.04	Open
R328	3.06	0.42		2.04	Open
R329	3.06	0.42		2.04	Open
R330	3.06	0.42		2.04	Open
R331	3.06	0.42		2.04	Open
R332	3.06	0.42		2.04	Open
R333	3.06	0.42		2.04	Open
R334	3.06	0.42		2.04	Open
R335	3.06	0.42		2.04	Open
R336	3.06	0.42		2.04	Open
R337	3.06	0.42		2.04	Open
R338	24.48	1.57		15.20	Open
R339	18.36	1.18		8.49	Open
R340	15.30	0.98		6.08	Open
R341	12.24	0.78		4.05	Open
R342	6.12	0.39		1.16	Open
R343	3.06	0.20		0.40	Open
R344	3.06	0.20		0.34	Open
R345	3.06	0.42		2.04	Open
R346	3.06	0.42		2.04	Open
R347	3.06	0.42		2.04	Open
R348	3.06	0.42		2.04	Open
R349	3.06	0.42		2.04	Open
R350	3.06	0.42		2.04	Open
R351	21.42	1.37		11.27	Open
R352	-154.49	1.23		3.27	Open
R353	-154.49	1.23		3.27	Open
R354	154.49	1.23		3.73	Open
R355	0.00	0.00		0.00	Open
R356	0.00	0.00		0.00	Open
R357	0.00	0.00		0.00	Open
R358	0.00	0.00		0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R359	0.00	0.00	0.00	0.00	Open
R360	0.00	0.00	0.00	0.00	Open
R361	0.00	0.00	0.00	0.00	Open
R362	0.00	0.00	0.00	0.00	Open
R363	0.00	0.00	0.00	0.00	Open
R364	0.00	0.00	0.00	0.00	Open
R365	0.00	0.00	0.00	0.00	Open
R366	0.00	0.00	0.00	0.00	Open
R367	0.00	0.00	0.00	0.00	Open
R368	0.00	0.00	0.00	0.00	Open
R369	0.00	0.00	0.00	0.00	Open
R370	0.00	0.00	0.00	0.00	Open
R371	0.00	0.00	0.00	0.00	Open
R372	0.00	0.00	0.00	0.00	Open
R373	0.00	0.00	0.00	0.00	Open
R374	0.00	0.00	0.00	0.00	Open
R375	0.00	0.00	0.00	0.00	Open
R376	0.00	0.00	0.00	0.00	Open
R377	0.00	0.00	0.00	0.00	Open
R378	0.00	0.00	0.00	0.00	Open
R379	0.00	0.00	0.00	0.00	Open
R380	0.00	0.00	0.00	0.00	Open
R381	0.00	0.00	0.00	0.00	Open
R382	0.00	0.00	0.00	0.00	Open
R383	0.00	0.00	0.00	0.00	Open
R384	0.00	0.00	0.00	0.00	Open
R385	0.00	0.00	0.00	0.00	Open
R386	0.00	0.00	0.00	0.00	Open
R387	0.00	0.00	0.00	0.00	Open
R388	0.00	0.00	0.00	0.00	Open
R389	0.00	0.00	0.00	0.00	Open
R390	0.00	0.00	0.00	0.00	Open
R391	0.00	0.00	0.00	0.00	Open
R392	0.00	0.00	0.00	0.00	Open
R393	0.00	0.00	0.00	0.00	Open
R394	0.00	0.00	0.00	0.00	Open
R395	0.00	0.00	0.00	0.00	Open
R396	0.00	0.00	0.00	0.00	Open
R397	0.00	0.00	0.00	0.00	Open
R398	0.00	0.00	0.00	0.00	Open
R399	0.00	0.00	0.00	0.00	Open
R400	0.00	0.00	0.00	0.00	Open
R401	0.00	0.00	0.00	0.00	Open
R402	0.00	0.00	0.00	0.00	Open
R403	0.00	0.00	0.00	0.00	Open
R404	0.00	0.00	0.00	0.00	Open
R405	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R406	0.00	0.00	0.00	0.00	Open
R407	0.00	0.00	0.00	0.00	Open
R408	0.00	0.00	0.00	0.00	Open
R409	0.00	0.00	0.00	0.00	Open
R410	0.00	0.00	0.00	0.00	Open
R411	0.00	0.00	0.00	0.00	Open
R412	0.00	0.00	0.00	0.00	Open
R413	0.00	0.00	0.00	0.00	Open
R414	0.00	0.00	0.00	0.00	Open
R415	0.00	0.00	0.00	0.00	Open
R416	0.00	0.00	0.00	0.00	Open
R417	0.00	0.00	0.00	0.00	Open
R418	0.00	0.00	0.00	0.00	Open
R419	0.00	0.00	0.00	0.00	Open
R420	0.00	0.00	0.00	0.00	Open
R421	0.00	0.00	0.00	0.00	Open
R422	0.00	0.00	0.00	0.00	Open
R423	0.00	0.00	0.00	0.00	Open
R424	0.00	0.00	0.00	0.00	Open
R425	0.00	0.00	0.00	0.00	Open
R426	0.00	0.00	0.00	0.00	Open
R427	0.00	0.00	0.00	0.00	Open
R428	0.00	0.00	0.00	0.00	Open
G429	-68.14	0.35	0.22	0.22	Open
G430	-68.14	0.35	0.27	0.27	Open
G431	-58.75	0.30	0.17	0.17	Open
R429	0.00	0.00	0.00	0.00	Open
R431	0.00	0.00	0.00	0.00	Open
R433	0.00	0.00	0.00	0.00	Open
R434	0.00	0.00	0.00	0.00	Open
R435	0.00	0.00	0.00	0.00	Open
R436	0.00	0.00	0.00	0.00	Open
R437	0.00	0.00	0.00	0.00	Open
R438	0.00	0.00	0.00	0.00	Open
R439	0.00	0.00	0.00	0.00	Open
R440	0.00	0.00	0.00	0.00	Open
R441	0.00	0.00	0.00	0.00	Open
R442	0.00	0.00	0.00	0.00	Open
R443	0.00	0.00	0.00	0.00	Open
R444	0.00	0.00	0.00	0.00	Open
R445	0.00	0.00	0.00	0.00	Open
R446	0.00	0.00	0.00	0.00	Open
R447	0.00	0.00	0.00	0.00	Open
R448	0.00	0.00	0.00	0.00	Open
R449	0.00	0.00	0.00	0.00	Open
R450	0.00	0.00	0.00	0.00	Open
R451	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R452	0.00	0.00	0.00	0.00	Open
R453	0.00	0.00	0.00	0.00	Open
R454	0.00	0.00	0.00	0.00	Open
R455	0.00	0.00	0.00	0.00	Open
R456	0.00	0.00	0.00	0.00	Open
R457	0.00	0.00	0.00	0.00	Open
R458	0.00	0.00	0.00	0.00	Open
R459	0.00	0.00	0.00	0.00	Open
R460	0.00	0.00	0.00	0.00	Open
R461	0.00	0.00	0.00	0.00	Open
R462	0.00	0.00	0.00	0.00	Open
R463	0.00	0.00	0.00	0.00	Open
R464	0.00	0.00	0.00	0.00	Open
R465	0.00	0.00	0.00	0.00	Open
R466	0.00	0.00	0.00	0.00	Open
R467	0.00	0.00	0.00	0.00	Open
R468	0.00	0.00	0.00	0.00	Open
R469	0.00	0.00	0.00	0.00	Open
R470	0.00	0.00	0.00	0.00	Open
R471	0.00	0.00	0.00	0.00	Open
R472	0.00	0.00	0.00	0.00	Open
R473	0.00	0.00	0.00	0.00	Open
R474	0.00	0.00	0.00	0.00	Open
R475	0.00	0.00	0.00	0.00	Open
R476	0.00	0.00	0.00	0.00	Open
R477	0.00	0.00	0.00	0.00	Open
R478	0.00	0.00	0.00	0.00	Open
R479	0.00	0.00	0.00	0.00	Open
R480	0.00	0.00	0.00	0.00	Open
R481	0.00	0.00	0.00	0.00	Open
R482	0.00	0.00	0.00	0.00	Open
R483	0.00	0.00	0.00	0.00	Open
R484	0.00	0.00	0.00	0.00	Open
R485	0.00	0.00	0.00	0.00	Open
R486	0.00	0.00	0.00	0.00	Open
R487	0.00	0.00	0.00	0.00	Open
R488	0.00	0.00	0.00	0.00	Open
R489	0.00	0.00	0.00	0.00	Open
R490	0.00	0.00	0.00	0.00	Open
R491	0.00	0.00	0.00	0.00	Open
R492	0.00	0.00	0.00	0.00	Open
R493	0.00	0.00	0.00	0.00	Open
R494	0.00	0.00	0.00	0.00	Open
R495	0.00	0.00	0.00	0.00	Open
R496	9.39	0.24	0.34	0.34	Open
R497	0.00	0.00	0.00	0.00	Open
R498	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R499	0.00	0.00	0.00	0.00	Open
R500	0.00	0.00	0.00	0.00	Open
R501	0.00	0.00	0.00	0.00	Open
R502	0.00	0.00	0.00	0.00	Open
R503	0.00	0.00	0.00	0.00	Open
R504	0.00	0.00	0.00	0.00	Open
R505	0.00	0.00	0.00	0.00	Open
R506	0.00	0.00	0.00	0.00	Open
R507	0.00	0.00	0.00	0.00	Open
R508	0.00	0.00	0.00	0.00	Open
R509	0.00	0.00	0.00	0.00	Open
R510	0.00	0.00	0.00	0.00	Open
R511	0.00	0.00	0.00	0.00	Open
R512	0.00	0.00	0.00	0.00	Open
R513	0.00	0.00	0.00	0.00	Open
R514	0.00	0.00	0.00	0.00	Open
R515	0.00	0.00	0.00	0.00	Open
R516	0.00	0.00	0.00	0.00	Open
R517	0.00	0.00	0.00	0.00	Open
R518	9.39	0.24	0.29	0.29	Open
R519	9.39	0.24	0.29	0.29	Open
R520	9.39	0.24	0.29	0.29	Open
R521	0.00	0.00	0.00	0.00	Open
R522	0.00	0.00	0.00	0.00	Open
R523	0.00	0.00	0.00	0.00	Open
R524	0.00	0.00	0.00	0.00	Open
R525	0.00	0.00	0.00	0.00	Open
R526	0.00	0.00	0.00	0.00	Open
R527	0.00	0.00	0.00	0.00	Open
R528	9.39	0.24	0.29	0.29	Open
R529	-9.39	0.24	1.26	1.26	Open
R530	-9.39	0.24	0.29	0.29	Open
R531	-9.39	0.24	0.29	0.29	Open
R532	-9.39	0.24	0.29	0.29	Open
R533	-9.39	0.24	0.29	0.29	Open
R534	-9.39	0.24	0.29	0.29	Open
R535	0.00	0.00	0.00	0.00	Open
R536	0.00	0.00	0.00	0.00	Open
R537	0.00	0.00	0.00	0.00	Open
R538	0.00	0.00	0.00	0.00	Open
R539	0.00	0.00	0.00	0.00	Open
R540	0.00	0.00	0.00	0.00	Open
R541	0.00	0.00	0.00	0.00	Open
R542	0.00	0.00	0.00	0.00	Open
R543	0.00	0.00	0.00	0.00	Open
R544	0.00	0.00	0.00	0.00	Open
R545	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R546	0.00	0.00	0.00	0.00	Open
R547	0.00	0.00	0.00	0.00	Open
R548	0.00	0.00	0.00	0.00	Open
R549	0.00	0.00	0.00	0.00	Open
R550	0.00	0.00	0.00	0.00	Open
R551	0.00	0.00	0.00	0.00	Open
R552	0.00	0.00	0.00	0.00	Open
R553	0.00	0.00	0.00	0.00	Open
R554	0.00	0.00	0.00	0.00	Open
R555	0.00	0.00	0.00	0.00	Open
R556	0.00	0.00	0.00	0.00	Open
R557	0.00	0.00	0.00	0.00	Open
R558	0.00	0.00	0.00	0.00	Open
R559	0.00	0.00	0.00	0.00	Open
R560	0.00	0.00	0.00	0.00	Open
R561	0.00	0.00	0.00	0.00	Open
R562	0.00	0.00	0.00	0.00	Open
R563	0.00	0.00	0.00	0.00	Open
R564	4.98	0.03	0.00	0.00	Open
G565	-58.75	0.30	0.17	0.00	Open
R565	0.00	0.00	0.00	0.00	Open
R566	0.00	0.00	0.00	0.00	Open
R567	0.00	0.00	0.00	0.00	Open
R568	0.00	0.00	0.00	0.00	Open
R569	0.00	0.00	0.00	0.00	Open
R570	0.00	0.00	0.00	0.00	Open
R571	0.00	0.00	0.00	0.00	Open
R572	0.00	0.00	0.00	0.00	Open
R573	0.00	0.00	0.00	0.00	Open
R574	0.00	0.00	0.00	0.00	Open
R575	0.00	0.00	0.00	0.00	Open
R576	0.00	0.00	0.00	0.00	Open
R577	0.00	0.00	0.00	0.00	Open
R578	0.00	0.00	0.00	0.00	Open
R579	0.00	0.00	0.00	0.00	Open
G580	-58.75	0.30	0.17	0.00	Open
G581	-54.65	0.28	0.15	0.00	Open
R580	0.00	0.00	0.00	0.00	Open
R581	0.00	0.00	0.00	0.00	Open
R582	0.00	0.00	0.00	0.00	Open
R583	0.00	0.00	0.00	0.00	Open
R584	0.00	0.00	0.00	0.00	Open
R585	0.00	0.00	0.00	0.00	Open
R586	0.00	0.00	0.00	0.00	Open
R587	0.00	0.00	0.00	0.00	Open
R588	0.00	0.00	0.00	0.00	Open
R589	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R590	0.00	0.00	0.00	0.00	Open
R591	0.00	0.00	0.00	0.00	Open
R592	0.00	0.00	0.00	0.00	Open
R593	0.00	0.00	0.00	0.00	Open
R594	0.00	0.00	0.00	0.00	Open
R595	0.00	0.00	0.00	0.00	Open
R596	-4.09	0.07	0.10	0.00	Open
R597	-4.09	0.07	0.02	0.02	Open
R598	-4.09	0.07	0.02	0.02	Open
R599	0.00	0.00	0.00	0.00	Open
R600	-4.09	0.07	0.02	0.02	Open
R601	-4.09	0.07	0.02	0.02	Open
R602	0.00	0.00	0.00	0.00	Open
R603	0.00	0.00	0.00	0.00	Open
R604	0.00	0.00	0.00	0.00	Open
R605	0.00	0.00	0.00	0.00	Open
R606	0.00	0.00	0.00	0.00	Open
R607	0.00	0.00	0.00	0.00	Open
R608	0.00	0.00	0.00	0.00	Open
R609	0.00	0.00	0.00	0.00	Open
R610	0.00	0.00	0.00	0.00	Open
R611	0.00	0.00	0.00	0.00	Open
R612	0.00	0.00	0.00	0.00	Open
R613	0.00	0.00	0.00	0.00	Open
R614	0.00	0.00	0.00	0.00	Open
R615	0.00	0.00	0.00	0.00	Open
R616	0.00	0.00	0.00	0.00	Open
R617	0.00	0.00	0.00	0.00	Open
R618	0.00	0.00	0.00	0.00	Open
R619	0.00	0.00	0.00	0.00	Open
R620	-4.09	0.07	0.02	0.02	Open
R621	-4.09	0.07	0.02	0.02	Open
R622	-4.09	0.07	0.02	0.02	Open
R623	4.09	0.07	0.03	0.00	Open
R624	4.09	0.07	0.02	0.02	Open
R625	0.00	0.00	0.00	0.00	Open
R627	0.00	0.00	0.00	0.00	Open
R628	0.00	0.00	0.00	0.00	Open
R629	0.00	0.00	0.00	0.00	Open
R630	0.00	0.00	0.00	0.00	Open
R631	0.00	0.00	0.00	0.00	Open
R632	0.00	0.00	0.00	0.00	Open
R633	0.00	0.00	0.00	0.00	Open
R634	0.00	0.00	0.00	0.00	Open
R635	0.00	0.00	0.00	0.00	Open
R636	0.00	0.00	0.00	0.00	Open
R637	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R638	0.00	0.00	0.00	0.00	Open
R639	0.00	0.00	0.00	0.00	Open
R640	0.00	0.00	0.00	0.00	Open
R641	0.00	0.00	0.00	0.00	Open
R642	0.00	0.00	0.00	0.00	Open
R643	0.00	0.00	0.00	0.00	Open
R644	-58.75	0.30	0.17	0.17	Open
R645	-58.75	0.30	0.17	0.17	Open
R646	-58.75	0.30	0.17	0.17	Open
R647	-58.75	0.30	0.15	0.15	Open
R648	-53.92	0.27	0.14	0.14	Open
R649	-53.92	0.27	0.14	0.14	Open
R650	-58.75	0.30	0.17	0.17	Open
R651	-58.75	0.30	0.17	0.17	Open
R652	58.75	0.30	0.17	0.17	Open
R653	58.75	0.30	0.17	0.17	Open
R654	58.75	0.30	0.17	0.17	Open
R655	0.00	0.00	0.00	0.00	Open
R656	0.00	0.00	0.00	0.00	Open
R657	0.00	0.00	0.00	0.00	Open
R658	0.00	0.00	0.00	0.00	Open
R659	0.00	0.00	0.00	0.00	Open
R660	0.00	0.00	0.00	0.00	Open
R661	0.00	0.00	0.00	0.00	Open
R662	0.00	0.00	0.00	0.00	Open
R663	0.00	0.00	0.00	0.00	Open
R664	0.00	0.00	0.00	0.00	Open
R665	0.00	0.00	0.00	0.00	Open
R666	0.00	0.00	0.00	0.00	Open
R667	0.00	0.00	0.00	0.00	Open
R668	0.00	0.00	0.00	0.00	Open
R669	0.00	0.00	0.00	0.00	Open
R670	0.00	0.00	0.00	0.00	Open
R671	0.00	0.00	0.00	0.00	Open
R672	0.00	0.00	0.00	0.00	Open
R673	0.00	0.00	0.00	0.00	Open
R674	0.00	0.00	0.00	0.00	Open
R675	0.00	0.00	0.00	0.00	Open
R676	0.00	0.00	0.00	0.00	Open
R677	0.00	0.00	0.00	0.00	Open
R678	0.00	0.00	0.00	0.00	Open
R679	0.00	0.00	0.00	0.00	Open
R680	0.00	0.00	0.00	0.00	Open
R681	0.00	0.00	0.00	0.00	Open
R682	0.00	0.00	0.00	0.00	Open
R683	0.00	0.00	0.00	0.00	Open
R684	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R685	0.00	0.00	0.00	0.00	Open
R686	0.00	0.00	0.00	0.00	Open
R687	0.00	0.00	0.00	0.00	Open
R688	0.00	0.00	0.00	0.00	Open
R689	0.00	0.00	0.00	0.00	Open
R690	0.00	0.00	0.00	0.00	Open
R691	0.00	0.00	0.00	0.00	Open
R692	0.00	0.00	0.00	0.00	Open
R693	0.00	0.00	0.00	0.00	Open
R694	0.00	0.00	0.00	0.00	Open
R695	0.00	0.00	0.00	0.00	Open
R696	0.00	0.00	0.00	0.00	Open
R697	0.00	0.00	0.00	0.00	Open
R698	0.00	0.00	0.00	0.00	Open
R699	0.00	0.00	0.00	0.00	Open
R700	0.00	0.00	0.00	0.00	Open
R701	0.00	0.00	0.00	0.00	Open
R702	0.00	0.00	0.00	0.00	Open
R703	0.00	0.00	0.00	0.00	Open
R704	0.00	0.00	0.00	0.00	Open
R705	0.00	0.00	0.00	0.00	Open
R706	0.00	0.00	0.00	0.00	Open
R707	0.00	0.00	0.00	0.00	Open
R708	0.00	0.00	0.00	0.00	Open
R709	0.00	0.00	0.00	0.00	Open
R710	0.00	0.00	0.00	0.00	Open
R711	0.00	0.00	0.00	0.00	Open
R712	0.00	0.00	0.00	0.00	Open
R713	0.00	0.00	0.00	0.00	Open
R714	0.00	0.00	0.00	0.00	Open
R715	0.00	0.00	0.00	0.00	Open
R716	0.00	0.00	0.00	0.00	Open
R626	0.00	0.00	0.00	0.00	Open
R717	0.00	0.00	0.00	0.00	Open
R718	0.00	0.00	0.00	0.00	Open
R719	0.00	0.00	0.00	0.00	Open
R720	0.00	0.00	0.00	0.00	Open
R721	0.00	0.00	0.00	0.00	Open
R722	0.00	0.00	0.00	0.00	Open
R723	0.00	0.00	0.00	0.00	Open
R724	0.00	0.00	0.00	0.00	Open
R725	0.00	0.00	0.00	0.00	Open
R726	0.00	0.00	0.00	0.00	Open
R727	0.00	0.00	0.00	0.00	Open
R728	0.00	0.00	0.00	0.00	Open
R729	0.00	0.00	0.00	0.00	Open
R730	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R731	0.00	0.00	0.00	0.00	Open
R732	0.00	0.00	0.00	0.00	Open
R733	0.00	0.00	0.00	0.00	Open
R734	0.00	0.00	0.00	0.00	Open
R735	0.00	0.00	0.00	0.00	Open
R736	0.00	0.00	0.00	0.00	Open
R737	0.00	0.00	0.00	0.00	Open
R738	0.00	0.00	0.00	0.00	Open
R739	0.00	0.00	0.00	0.00	Open
R740	0.00	0.00	0.00	0.00	Open
R741	0.00	0.00	0.00	0.00	Open
R742	0.00	0.00	0.00	0.00	Open
R743	0.00	0.00	0.00	0.00	Open
R744	0.00	0.00	0.00	0.00	Open
R745	0.00	0.00	0.00	0.00	Open
R746	0.00	0.00	0.00	0.00	Open
R747	0.00	0.00	0.00	0.00	Open
R748	0.00	0.00	0.00	0.00	Open
R749	0.00	0.00	0.00	0.00	Open
R750	0.00	0.00	0.00	0.00	Open
R751	0.00	0.00	0.00	0.00	Open
R752	0.00	0.00	0.00	0.00	Open
R753	0.00	0.00	0.00	0.00	Open
R754	0.00	0.00	0.00	0.00	Open
R755	0.00	0.00	0.00	0.00	Open
R756	0.00	0.00	0.00	0.00	Open
R757	0.00	0.00	0.00	0.00	Open
R758	0.00	0.00	0.00	0.00	Open
R759	0.00	0.00	0.00	0.00	Open
R760	0.00	0.00	0.00	0.00	Open
R761	0.00	0.00	0.00	0.00	Open
R762	0.00	0.00	0.00	0.00	Open
R763	0.00	0.00	0.00	0.00	Open
R764	0.00	0.00	0.00	0.00	Open
R765	0.00	0.00	0.00	0.00	Open
R766	0.00	0.00	0.00	0.00	Open
R767	0.00	0.00	0.00	0.00	Open
R768	0.00	0.00	0.00	0.00	Open
R769	-4.82	0.08	0.08	0.04	Open
R770	-4.82	0.08	0.08	0.03	Open
R771	-4.82	0.08	0.08	0.03	Open
R772	-4.82	0.08	0.08	0.03	Open
R773	-4.82	0.08	0.08	0.03	Open
R774	-4.82	0.08	0.08	0.03	Open
R775	-4.82	0.08	0.08	0.03	Open
R776	-4.82	0.08	0.08	0.03	Open
R777	-4.82	0.08	0.08	0.03	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R778	-4.82	0.08	0.08	0.03	Open
R779	-4.82	0.13	0.13	0.09	Open
R780	-4.82	0.13	0.13	0.09	Open
R781	-4.82	0.13	0.13	0.09	Open
R782	-4.82	0.13	0.13	0.09	Open
R783	-4.82	0.13	0.13	0.22	Open
R788	4.82	0.08	0.08	0.03	Open
R785	0.00	0.00	0.00	0.00	Open
R786	0.00	0.00	0.00	0.00	Open
R787	0.00	0.00	0.00	0.00	Open
R788	0.00	0.00	0.00	0.00	Open
R789	0.00	0.00	0.00	0.00	Open
R790	0.00	0.00	0.00	0.00	Open
R791	0.00	0.00	0.00	0.00	Open
R792	0.00	0.00	0.00	0.00	Open
R793	0.00	0.00	0.00	0.00	Open
R794	0.00	0.00	0.00	0.00	Open
R795	0.00	0.00	0.00	0.00	Open
R796	0.00	0.00	0.00	0.00	Open
R797	0.00	0.00	0.00	0.00	Open
R799	4.82	0.08	0.08	0.08	Open
R800	0.00	0.00	0.00	0.00	Open
R801	0.00	0.00	0.00	0.00	Open
R802	0.00	0.00	0.00	0.00	Open
R803	0.00	0.00	0.00	0.00	Open
R804	0.00	0.00	0.00	0.00	Open
R805	0.00	0.00	0.00	0.00	Open
R806	0.00	0.00	0.00	0.00	Open
R807	0.00	0.00	0.00	0.00	Open
R808	0.00	0.00	0.00	0.00	Open
R809	0.00	0.00	0.00	0.00	Open
R810	0.00	0.00	0.00	0.00	Open
R811	0.00	0.00	0.00	0.00	Open
R812	0.00	0.00	0.00	0.00	Open
R813	0.00	0.00	0.00	0.00	Open
R814	0.00	0.00	0.00	0.00	Open
R784	0.00	0.00	0.00	0.00	Open
R815	0.00	0.00	0.00	0.00	Open
R816	0.00	0.00	0.00	0.00	Open
R817	0.00	0.00	0.00	0.00	Open
R818	0.00	0.00	0.00	0.00	Open
R819	0.00	0.00	0.00	0.00	Open
R820	0.00	0.00	0.00	0.00	Open
R821	0.00	0.00	0.00	0.00	Open
R822	0.00	0.00	0.00	0.00	Open
R823	0.00	0.00	0.00	0.00	Open
R824	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R825	0.00	0.00	0.00	0.00	Open
R826	0.00	0.00	0.00	0.00	Open
R827	0.00	0.00	0.00	0.00	Open
R828	0.00	0.00	0.00	0.00	Open
R829	0.00	0.00	0.00	0.00	Open
R830	0.00	0.00	0.00	0.00	Open
R831	0.00	0.00	0.00	0.00	Open
R832	0.00	0.00	0.00	0.00	Open
R833	0.00	0.00	0.00	0.00	Open
R834	0.00	0.00	0.00	0.00	Open
R835	0.00	0.00	0.00	0.00	Open
R836	0.00	0.00	0.00	0.00	Open
R837	0.00	0.00	0.00	0.00	Open
R838	0.00	0.00	0.00	0.00	Open
R839	0.00	0.00	0.00	0.00	Open
R840	0.00	0.00	0.00	0.00	Open
R841	0.00	0.00	0.00	0.00	Open
R842	0.00	0.00	0.00	0.00	Open
R843	0.00	0.00	0.00	0.00	Open
R844	0.00	0.00	0.00	0.00	Open
R845	0.00	0.00	0.00	0.00	Open
R846	0.00	0.00	0.00	0.00	Open
R847	0.00	0.00	0.00	0.00	Open
R848	0.00	0.00	0.00	0.00	Open
R849	0.00	0.00	0.00	0.00	Open
R850	0.00	0.00	0.00	0.00	Open
R851	0.00	0.00	0.00	0.00	Open
R852	0.00	0.00	0.00	0.00	Open
R853	0.00	0.00	0.00	0.00	Open
R854	0.00	0.00	0.00	0.00	Open
R855	0.00	0.00	0.00	0.00	Open
R856	0.00	0.00	0.00	0.00	Open
R857	0.00	0.00	0.00	0.00	Open
R858	0.00	0.00	0.00	0.00	Open
R859	0.00	0.00	0.00	0.00	Open
R860	0.00	0.00	0.00	0.00	Open
R861	0.00	0.00	0.00	0.00	Open
R862	0.00	0.00	0.00	0.00	Open
R863	0.00	0.00	0.00	0.00	Open
R864	289.44	2.30	11.72	11.72	Open
R865	24.48	1.57	44.47	44.47	Open
R866	21.42	1.37	11.27	11.27	Open
R867	18.36	1.18	8.49	8.49	Open
R868	12.24	0.78	4.05	4.05	Open
R869	6.12	0.39	1.16	1.16	Open
R870	3.06	0.20	0.34	0.34	Open
R871	3.06	0.42	2.04	2.04	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R872	3.06	0.42	2.04	2.04	Open
R873	3.06	0.42	2.04	2.04	Open
R874	3.06	0.42	2.04	2.04	Open
R875	3.06	0.42	2.04	2.04	Open
R876	3.06	0.42	2.04	2.04	Open
R877	3.06	0.42	2.04	2.04	Open
R878	264.96	2.11	9.35	9.35	Open
R879	216.44	1.72	6.30	6.30	Open
R880	191.52	1.52	4.96	4.96	Open
R881	48.52	1.59	21.35	21.35	Open
R882	12.24	0.78	5.78	5.78	Open
R883	9.18	0.59	2.40	2.40	Open
R884	6.12	0.39	1.16	1.16	Open
R885	3.06	0.20	0.34	0.34	Open
R886	3.06	0.42	2.04	2.04	Open
R887	3.06	0.42	2.04	2.04	Open
R888	3.06	0.42	2.04	2.04	Open
R889	36.28	1.19	5.75	5.75	Open
R890	33.22	1.09	4.89	4.89	Open
R891	30.16	0.99	4.09	4.09	Open
R896	24.92	0.81	9.80	9.80	Open
R897	18.80	0.61	1.73	1.73	Open
R898	15.74	0.51	1.25	1.25	Open
R899	9.62	0.31	0.52	0.52	Open
R900	6.56	0.21	0.26	0.26	Open
R901	3.50	0.11	0.09	0.09	Open
R902	21.86	0.71	2.27	2.27	Open
R903	94.55	0.75	1.27	1.27	Open
R904	163.44	2.13	11.39	11.39	Open
R905	99.18	1.29	3.88	3.88	Open
R906	4.32	0.03	0.00	0.00	Open
R907	-85.37	0.68	1.04	1.04	Open
R908	9.18	0.59	3.60	3.60	Open
R909	3.06	0.20	0.34	0.34	Open
R910	3.06	0.42	2.04	2.04	Open
R911	3.06	0.42	2.04	2.04	Open
R912	96.97	1.26	41.16	41.16	Open
R913	93.91	1.22	3.50	3.50	Open
R914	3.06	0.42	2.04	2.04	Open
R915	66.37	0.86	1.85	1.85	Open
R916	63.31	0.82	1.70	1.70	Open
R917	60.25	0.78	1.55	1.55	Open
R918	57.19	0.74	1.41	1.41	Open
R919	54.13	0.70	1.27	1.27	Open
R920	51.07	0.66	1.14	1.14	Open
R921	48.01	0.62	1.02	1.02	Open
R922	44.95	0.58	0.91	0.91	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R923	3.06	0.42	2.04	2.04	Open
R924	3.06	0.42	2.04	2.04	Open
R925	3.06	0.42	2.04	2.04	Open
R926	3.06	0.42	2.04	2.04	Open
R927	3.06	0.42	2.04	2.04	Open
R928	3.06	0.42	2.04	2.04	Open
R929	3.06	0.42	2.04	2.04	Open
R930	89.69	1.17	12.90	12.90	Open
R931	86.63	1.13	3.02	3.02	Open
R932	83.57	1.09	2.83	2.83	Open
R933	80.51	1.05	2.64	2.64	Open
R934	77.45	1.01	2.46	2.46	Open
R935	74.39	0.97	2.28	2.28	Open
R936	71.33	0.93	2.11	2.11	Open
R937	68.27	0.89	1.95	1.95	Open
R938	65.21	0.85	1.79	1.79	Open
R939	43.79	0.57	0.86	0.86	Open
R940	40.73	0.53	0.76	0.76	Open
R941	37.67	0.49	0.66	0.66	Open
R942	34.61	0.45	0.56	0.56	Open
R943	31.55	0.41	0.48	0.48	Open
R944	28.49	0.37	0.40	0.40	Open
R945	10.13	0.13	0.06	0.06	Open
R946	7.07	0.09	0.03	0.03	Open
R947	4.01	0.05	0.01	0.01	Open
R948	0.95	0.01	0.00	0.00	Open
R949	-2.11	0.03	0.00	0.00	Open
R950	-5.17	0.07	0.02	0.02	Open
R951	-8.23	0.11	0.04	0.04	Open
R952	-11.29	0.15	0.08	0.08	Open
R953	-14.35	0.19	0.12	0.12	Open
R954	3.06	0.42	2.04	2.04	Open
R955	3.06	0.42	2.04	2.04	Open
R956	3.06	0.42	2.04	2.04	Open
R957	3.06	0.42	2.04	2.04	Open
R958	3.06	0.42	2.04	2.04	Open
R959	3.06	0.42	2.04	2.04	Open
R960	3.06	0.42	2.04	2.04	Open
R961	3.06	0.42	2.04	2.04	Open
R962	3.06	0.42	2.04	2.04	Open
R963	3.06	0.42	2.04	2.04	Open
R964	3.06	0.42	2.04	2.04	Open
R965	3.06	0.42	2.04	2.04	Open
R966	3.06	0.42	2.04	2.04	Open
R967	3.06	0.42	2.04	2.04	Open
R968	3.06	0.42	2.04	2.04	Open
R969	3.06	0.42	2.04	2.04	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R970	3.06	0.42	2.04	2.04	Open
R971	3.06	0.42	2.04	2.04	Open
R972	3.06	0.42	2.04	2.04	Open
R973	3.06	0.42	2.04	2.04	Open
R974	3.06	0.42	2.04	2.04	Open
R975	3.06	0.42	2.04	2.04	Open
R976	3.06	0.42	2.04	2.04	Open
R977	3.06	0.42	2.04	2.04	Open
R978	3.06	0.42	2.04	2.04	Open
R979	3.06	0.42	2.04	2.04	Open
R980	3.06	0.42	2.04	2.04	Open
R981	3.06	0.42	2.04	2.04	Open
R982	3.06	0.42	2.04	2.04	Open
R983	3.06	0.42	2.04	2.04	Open
R984	33.66	1.10	5.28	5.28	Open
R985	27.54	1.76	19.29	19.29	Open
R986	24.48	1.57	14.43	14.43	Open
R987	21.42	1.37	11.27	11.27	Open
R988	18.36	1.18	8.49	8.49	Open
R989	15.30	0.98	6.08	6.08	Open
R990	9.18	0.59	2.72	2.72	Open
R991	6.12	0.39	1.16	1.16	Open
R992	3.06	0.20	0.34	0.34	Open
R993	6.12	0.39	1.16	1.16	Open
R994	3.06	0.20	0.34	0.34	Open
R995	3.06	0.42	2.04	2.04	Open
R996	3.06	0.42	2.04	2.04	Open
R997	3.06	0.42	2.04	2.04	Open
R998	3.06	0.42	2.04	2.04	Open
R999	3.06	0.42	2.04	2.04	Open
R1000	3.06	0.42	2.04	2.04	Open
R1001	3.06	0.42	2.04	2.04	Open
R1002	3.06	0.42	2.04	2.04	Open
R1003	3.06	0.42	2.04	2.04	Open
R892	27.54	1.76	51.11	51.11	Open
R893	21.42	1.37	11.27	11.27	Open
R894	18.36	1.18	8.49	8.49	Open
R895	12.24	0.78	4.05	4.05	Open
R1004	9.18	0.59	2.40	2.40	Open
R1005	6.12	0.39	1.16	1.16	Open
R1006	3.06	0.20	0.34	0.34	Open
R1007	3.06	0.42	2.04	2.04	Open
R1008	3.06	0.42	2.04	2.04	Open
R1009	3.06	0.42	2.04	2.04	Open
R1010	3.06	0.42	2.04	2.04	Open
R1011	3.06	0.42	2.04	2.04	Open
R1012	3.06	0.42	2.04	2.04	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1013	3.06	0.42	2.04	2.04	Open
R1014	30.60	1.96	44.68		Open
R1015	27.54	1.76	17.94		Open
R1016	24.48	1.57	14.43		Open
R1017	21.42	1.37	11.27		Open
R1018	18.36	1.18	8.49		Open
R1019	15.30	0.98	6.08		Open
R1020	12.24	0.78	4.05		Open
R1021	9.18	0.59	2.40		Open
R1022	6.12	0.39	1.16		Open
R1023	3.06	0.20	0.34		Open
R1024	3.06	0.42	2.04		Open
R1025	3.06	0.42	2.04		Open
R1026	3.06	0.42	2.04		Open
R1027	3.06	0.42	2.04		Open
R1028	3.06	0.42	2.04		Open
R1029	3.06	0.42	2.04		Open
R1030	3.06	0.42	2.04		Open
R1031	3.06	0.42	2.04		Open
R1032	3.06	0.42	2.04		Open
R1033	3.06	0.42	2.04		Open
R1034	3.06	0.42	2.04		Open
R1035	3.06	0.42	2.04		Open
R1036	3.06	0.42	2.04		Open
R1037	3.06	0.42	2.04		Open
R1038	18.36	1.18	15.82		Open
R1039	15.30	0.98	6.08		Open
R1040	12.24	0.78	4.05		Open
R1041	9.18	0.59	2.40		Open
R1042	6.12	0.39	1.16		Open
R1043	3.06	0.20	0.34		Open
R1044	3.06	0.42	2.04		Open
R1045	3.06	0.42	2.04		Open
R1046	3.06	0.42	2.04		Open
R1047	3.06	0.42	2.04		Open
R1048	3.06	0.42	2.04		Open
R1049	3.06	0.42	2.04		Open
R1050	21.42	1.37	24.40		Open
R1051	15.30	0.98	6.08		Open
R1052	12.24	0.78	4.05		Open
R1053	9.18	0.59	2.40		Open
R1054	6.12	0.39	1.16		Open
R1055	3.06	0.20	0.34		Open
R1056	24.48	1.57	32.90		Open
R1057	21.42	1.37	11.27		Open
R1058	18.36	1.18	8.49		Open
R1059	15.30	0.98	6.08		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1060	12.24	0.78	4.05		Open
R1061	6.12	0.39	1.51		Open
R1062	3.06	0.20	0.34		Open
R1063	6.12	0.39	1.16		Open
R1064	3.06	0.20	0.34		Open
R1065	3.06	0.42	2.04		Open
R1066	3.06	0.42	2.04		Open
R1067	3.06	0.42	2.04		Open
R1068	3.06	0.42	2.04		Open
R1069	3.06	0.42	2.04		Open
R1070	3.06	0.42	2.04		Open
R1071	94.86	1.23	55.32		Open
R1072	70.38	0.92	2.06		Open
R1073	70.38	0.92	2.06		Open
R1074	45.90	1.19	5.33		Open
R1075	24.48	1.57	35.69		Open
R1076	21.42	1.37	11.27		Open
R1077	3.06	0.42	2.04		Open
R1079	12.24	0.78	4.05		Open
R1080	6.12	0.39	1.16		Open
R1082	-6.12	0.39	1.16		Open
R1083	-9.18	0.59	2.40		Open
R1084	-12.24	0.78	4.05		Open
R1085	-18.36	1.18	8.49		Open
R1086	-21.42	1.37	17.31		Open
R1088	-27.54	0.90	3.46		Open
R1089	-30.60	1.00	4.20		Open
R1090	-33.66	1.10	5.01		Open
R1091	-39.78	1.30	6.81		Open
R1092	-42.84	1.40	7.81		Open
R1093	-45.90	1.50	8.87		Open
R1095	3.06	0.20	0.34		Open
R1096	3.06	0.42	2.04		Open
R1097	3.06	0.42	2.04		Open
R1099	18.36	1.18	10.16		Open
R1100	15.30	0.98	6.08		Open
R1101	3.06	0.20	0.34		Open
R1102	12.24	0.78	4.65		Open
R1103	6.12	0.39	1.16		Open
R1104	3.06	0.20	0.34		Open
R1105	3.06	0.42	2.04		Open
R1106	3.06	0.42	2.04		Open
R1107	3.06	0.42	2.04		Open
R1108	3.06	0.42	2.04		Open
R1109	3.06	0.42	2.04		Open
R1110	3.06	0.42	2.04		Open
R1111	3.06	0.42	2.04		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1112	3.06	0.42	2.04	Open
R1113	3.06	0.42	2.04	Open
R1114	3.06	0.42	2.04	Open
R1115	3.06	0.42	2.04	Open
R1116	3.06	0.42	2.04	Open
R1117	3.06	0.42	2.04	Open
R1118	3.06	0.42	2.04	Open
R1119	3.06	0.42	2.04	Open
R1120	6.12	0.83	7.12	Open
R1121	3.06	0.42	2.04	Open
R1122	3.06	0.42	2.04	Open
R1123	3.06	0.42	2.04	Open
R1124	3.06	0.42	2.04	Open
R1125	3.06	0.42	2.04	Open
R1126	3.06	0.42	2.04	Open
R1127	3.06	0.42	2.04	Open
R1128	3.06	0.42	2.04	Open
R1129	3.06	0.42	2.04	Open
R1130	3.06	0.42	2.04	Open
R1131	3.06	0.42	2.04	Open
R1132	27.54	0.90	4.07	Open
R1133	24.48	0.80	2.79	Open
R1134	21.42	1.37	12.15	Open
R1135	12.24	0.78	15.78	Open
R1136	9.18	0.59	2.40	Open
R1137	6.12	0.39	1.16	Open
R1138	3.06	0.20	0.34	Open
R1139	3.06	0.42	2.04	Open
R1140	3.06	0.42	2.04	Open
R1141	3.06	0.42	2.04	Open
R1142	3.06	0.42	2.04	Open
R1143	3.06	0.42	2.04	Open
R1144	9.18	0.59	2.40	Open
R1145	6.12	0.39	1.16	Open
R1146	3.06	0.20	0.37	Open
R1147	3.06	0.42	2.04	Open
R1148	3.06	0.42	2.04	Open
R1149	-45.90	1.50	8.87	Open
R1150	48.96	1.60	10.00	Open
R1151	52.02	1.70	11.77	Open
R1152	3.06	0.42	2.04	Open
R1153	3.06	0.42	2.04	Open
R1154	3.06	0.42	2.04	Open
R1155	3.06	0.42	2.04	Open
R1156	3.06	0.42	2.04	Open
R1157	3.06	0.42	2.04	Open
R1158	3.06	0.42	2.04	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1159	3.06	0.42	2.04	Open
R1162	24.48	1.57	14.43	Open
R1163	21.42	1.37	11.27	Open
R1164	6.12	0.39	1.16	Open
R1165	3.06	0.42	2.04	Open
R1166	64.26	1.67	76.94	Open
R1167	6.12	0.39	1.45	Open
R1168	3.06	0.20	0.34	Open
R1169	58.14	1.51	7.87	Open
R1170	15.30	0.98	11.26	Open
R1171	12.24	0.78	4.05	Open
R1172	9.18	0.59	2.40	Open
R1173	6.12	0.39	1.16	Open
R1174	3.06	0.20	0.34	Open
R1175	3.06	0.42	2.04	Open
R1176	3.06	0.42	2.04	Open
R1177	3.06	0.42	2.04	Open
R1178	3.06	0.42	2.04	Open
R1179	42.84	1.11	4.48	Open
R1180	15.30	0.98	7.94	Open
R1181	12.24	0.78	4.05	Open
R1182	9.18	0.59	2.40	Open
R1183	6.12	0.39	1.16	Open
R1184	3.06	0.20	0.34	Open
R1185	3.06	0.42	2.04	Open
R1186	3.06	0.42	2.04	Open
R1187	3.06	0.42	2.04	Open
R1188	3.06	0.42	2.04	Open
R1189	27.54	0.90	6.82	Open
R1190	24.48	0.80	2.79	Open
R1191	21.42	0.70	2.19	Open
R1192	9.18	0.59	3.19	Open
R1193	6.12	0.39	1.16	Open
R1194	3.06	0.20	0.34	Open
R1195	12.24	0.78	10.60	Open
R1196	9.18	0.59	2.40	Open
R1197	6.12	0.39	1.16	Open
R1198	3.06	0.20	0.34	Open
R1199	3.06	0.42	2.04	Open
R1200	3.06	0.42	2.04	Open
R1201	3.06	0.42	2.04	Open
R1202	3.06	0.42	2.04	Open
R1203	3.06	0.42	2.04	Open
R1204	3.06	0.42	2.04	Open
R1205	3.06	0.42	2.04	Open
R1206	3.06	0.42	2.04	Open
R1207	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1208	0.00	0.00	0.00	Open
R1209	0.00	0.00	0.00	Open
R1210	0.00	0.00	0.00	Open
R1211	0.00	0.00	0.00	Open
R1212	0.00	0.00	0.00	Open
R1213	0.00	0.00	0.00	Open
R1214	0.00	0.00	0.00	Open
R1215	0.00	0.00	0.00	Open
R1216	0.00	0.00	0.00	Open
R1217	0.00	0.00	0.00	Open
R1218	0.00	0.00	0.00	Open
R1219	0.00	0.00	0.00	Open
R1220	0.00	0.00	0.00	Open
R1221	0.00	0.00	0.00	Open
R1222	0.00	0.00	0.00	Open
R1223	0.00	0.00	0.00	Open
R1224	0.00	0.00	0.00	Open
R1225	0.00	0.00	0.00	Open
R1226	0.00	0.00	0.00	Open
R1227	0.00	0.00	0.00	Open
R1228	0.00	0.00	0.00	Open
R1229	0.00	0.00	0.00	Open
R1230	0.00	0.00	0.00	Open
R1231	0.00	0.00	0.00	Open
R1	0.00	0.00	0.00	Open
R2	0.00	0.00	0.00	Open
R1232	0.00	0.00	0.00	Open
R1233	0.00	0.00	0.00	Open
R430	0.00	0.00	0.00	Open
R1234	12.24	0.78	4.05	Open
R1235	9.18	0.59	2.52	Open
R1236	27.54	1.76	17.94	Open
R1237	3.06	0.40	1.87	Open
R1238	3.06	0.20	0.36	Open
R3187	24.48	0.80	2.79	Open
R1239	3.06	0.42	2.04	Open
R1240	18.36	1.18	8.49	Open
R1241	18.36	1.18	8.49	Open
R1078	229.27	0.81	0.90	Open
R1081	65.83	0.52	1.00	Open
P1	0.00	0.00	0.00	Closed Pump
P2	150.45	0.00	-79.84	Open Pump
P3	150.45	0.00	-79.84	Open Pump
P4	150.45	0.00	-79.84	Open Pump
P5	150.45	0.00	-79.84	Open Pump
P6	150.45	0.00	-79.84	Open Pump
P7	150.45	0.00	-79.84	Open Pump

2.5 IPOTESI DI FUNZIONAMENTO C

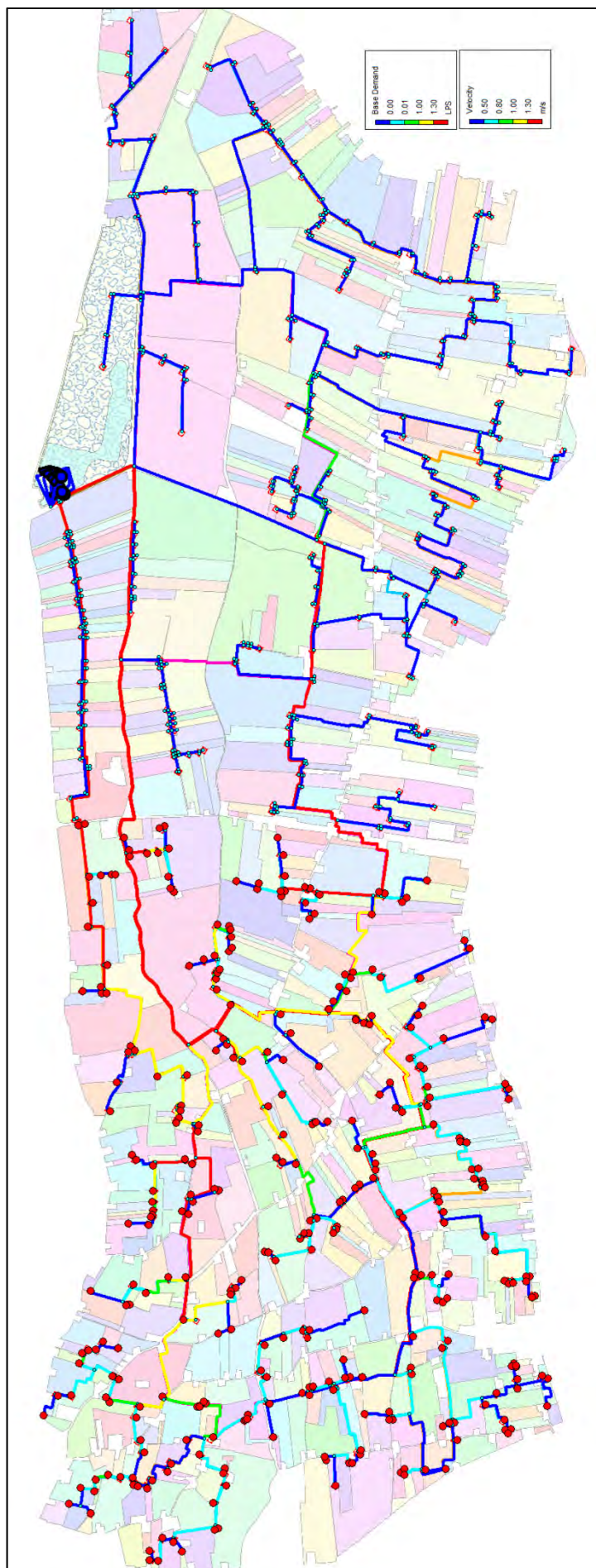


Figura 19 – Risultati della simulazione : base demand nei nodi e velocità nei rami

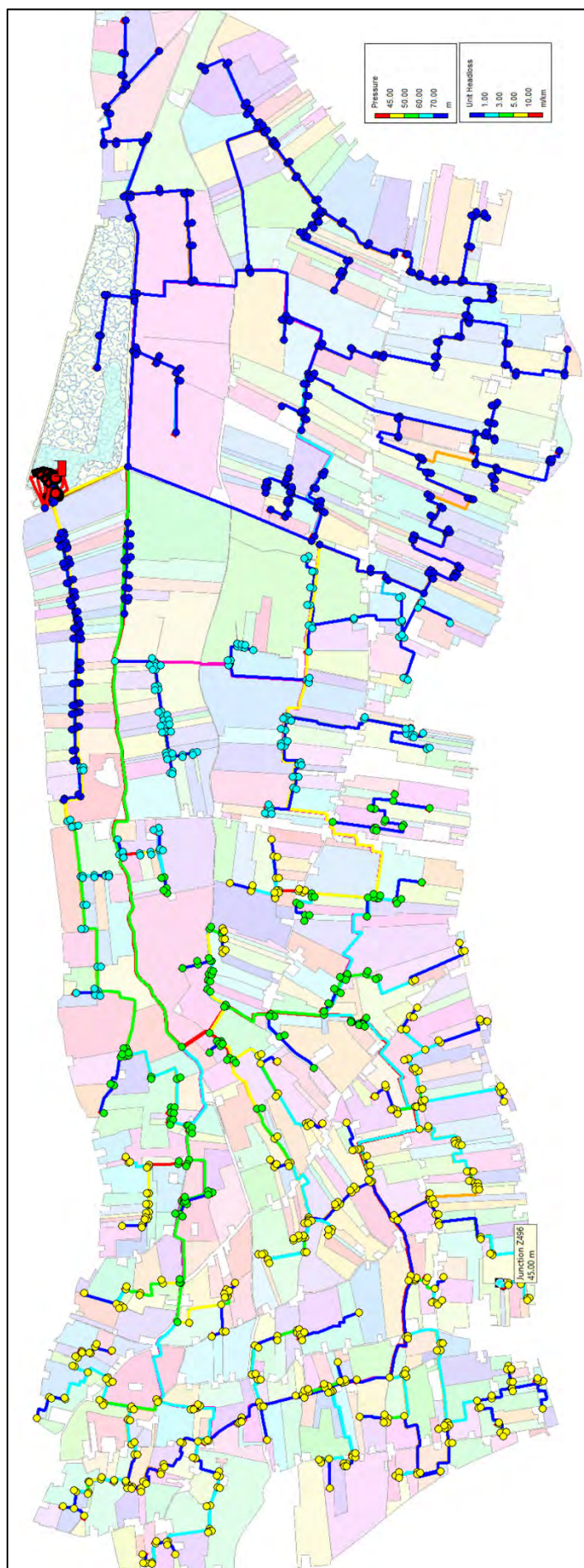


Figura 20 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE VILLA PRATI IPOTESI FUNZIONAMENTO C

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
G20	Z1	Z2	30	600
G1	Z2	Z3	577.2	600
R3	Z2	Z4	18.5	400
R4	Z4	Z5	213.4	400
R5	Z5	Z6	18.6	400
R6	Z6	Z7	50	400
R7	Z7	Z8	32.8	400
R8	Z8	Z9	10	400
R9	Z9	Z10	77.7	400
R10	Z10	Z11	27.2	400
R11	Z11	Z12	113.0	400
R12	Z12	Z13	80.80	400
R13	Z13	Z14	39.50	400
R14	Z14	Z15	100.7	400
R15	Z15	Z16	53.2	400
R16	Z16	Z17	37.1	400
R17	Z17	Z29	27.4	400
R18	Z29	Z18	29.8	400
R19	Z18	Z19	37.40	400
R20	Z19	Z20	161.3	400
R21	Z20	Z21	49.5	400
R22	Z21	Z22	92.5	400
R23	Z22	Z23	139.4	400
R24	Z23	Z24	56.4	400
R25	Z24	Z25	103.7	400
R26	Z25	Z26	297.1	400
R27	Z26	Z27	13	400
R28	Z27	Z28	449.3	400
R56	Z4	Z56	5	96.8
R57	Z5	Z57	5	96.8
R58	Z6	Z58	5	96.8
R59	Z7	Z59	5	96.8
R60	Z8	Z60	5	96.8
R61	Z9	Z61	5	96.8
R62	Z10	Z62	5	96.8
R63	Z11	Z63	5	96.8
R64	Z12	Z64	5	98.6

Link ID	Start Node	End Node	Length m	Diameter mm
R65	Z13	Z65	5	96.8
R66	Z14	Z66	5	96.8
R67	Z15	Z67	5	96.8
R68	Z16	Z68	5	96.8
R69	Z17	Z69	5	96.8
R29	Z29	Z72	9	141
R71	Z18	Z70	5	96.8
R72	Z19	Z71	5	96.8
R73	Z20	Z73	5	96.8
R74	Z21	Z74	5	96.8
R75	Z22	Z75	5	96.8
R76	Z23	Z76	5	96.8
R77	Z24	Z77	5	96.8
R78	Z25	Z78	5	96.8
R79	Z26	Z79	5	96.8
R80	Z27	Z80	5	96.8
R81	Z28	Z81	5	96.8
R30	Z72	Z82	9.7	141
R31	Z82	Z83	159.2	141.0
R32	Z83	Z84	38.2	141.0
R33	Z84	Z85	117.3	141.0
R34	Z85	Z86	113.7	141.0
R35	Z86	Z87	27.4	141.0
R36	Z87	Z88	117.2	141.0
R37	Z88	Z89	50.80	141.0
R38	Z89	Z90	35.05	141.0
R91	Z82	Z91	5	96.8
R92	Z83	Z92	5	96.8
R93	Z84	Z93	5	96.8
R94	Z85	Z94	5	96.8
R95	Z86	Z95	5	96.8
R96	Z87	Z96	5	96.8
R97	Z88	Z97	5	96.8
R98	Z89	Z98	5	96.8
R39	Z72	Z99	60.2	141.0
R40	Z99	Z100	309.8	141.0
R41	Z100	Z101	151.6	141.0
R42	Z101	Z102	575	141.0
R43	Z102	Z103	103.5	141.0
R44	Z103	Z104	144.7	141.0
R45	Z104	Z105	66.4	141.0
R46	Z105	Z106	256.8	141.0
R47	Z106	Z107	110.74	141.0
R107	Z106	Z108	5	96.8
R108	Z105	Z109	5	96.8
R109	Z104	Z110	5	96.8
R110	Z103	Z111	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R111	Z102	Z112	5	96.8
R112	Z101	Z113	5	96.8
R113	Z100	Z114	5	96.8
R114	Z99	Z115	5	96.8
R49	Z28	Z116	80	400
R50	Z116	Z117	380.3	400
R51	Z117	Z118	195.4	400
R52	Z118	Z119	163.7	400
R53	Z119	Z120	336.9	400
R54	Z120	Z121	169.6	400
R55	Z117	Z122	16.1	141.0
R120	Z122	Z123	84.1	141.0
R121	Z123	Z124	71.9	141.0
R122	Z122	Z125	15.04	96.8
R123	Z123	Z126	13.85	96.8
R124	Z107	Z127	5	96.8
R125	Z128	Z124	5	96.8
R126	Z124	Z129	26	141.0
R127	Z129	Z130	5	96.8
R82	Z30	Z31	61.5	400
R83	Z31	Z32	13.8	400
R84	Z121	Z30	623	400
R85	Z32	Z33	322.7	400
R86	Z33	Z34	261.2	400
R87	Z34	Z35	231.7	400
R88	Z35	Z36	34.2	400
R89	Z36	Z37	49.8	400
R90	Z37	Z38	11	400
R99	Z38	Z39	127.3	400
R100	Z39	Z40	3.8	400
R101	Z31	Z43	14.3	141.0
R102	Z43	Z45	243.6	141.0
R103	Z45	Z48	218.5	141.0
R104	Z45	Z46	5	96.8
R105	Z43	Z44	5	96.8
R106	Z30	Z42	5	96.8
R115	Z118	Z49	5	96.8
R116	Z119	Z50	5	141
R117	Z120	Z51	5	96.8
R118	Z121	Z52	12.1	141.0
R119	Z52	Z53	5.5	141.0
R128	Z53	Z54	140.8	141.0
R129	Z53	Z131	5	96.8
R130	Z53	Z55	5	96.8
G131	Z3	Z132	618	600
R131	Z132	Z133	4	141.0
R132	Z133	Z134	19.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R133	Z134	Z135	81.5	141.0
R134	Z135	Z136	81.4	141.0
R135	Z136	Z137	75	141.0
R136	Z133	Z138	98.5	141.0
R137	Z138	Z139	90.2	141.0
R138	Z139	Z140	70	141.0
R139	Z140	Z141	15.2	141.0
R140	Z141	Z142	97	141.0
R141	Z141	Z157	5	96.8
R142	Z140	Z158	5	96.8
R143	Z139	Z159	5	96.8
R144	Z138	Z160	5	96.8
R145	Z134	Z161	5	96.8
R146	Z135	Z162	5	96.8
R147	Z136	Z163	5	96.8
G148	Z132	Z143	701.3	600
G149	Z143	Z147	1433.79	600
R149	Z147	Z145	5.8	141.0
R150	Z145	Z148	5.7	141.0
R151	Z148	Z149	120	141.0
R152	Z149	Z150	76.8	141.0
R153	Z150	Z151	47.6	141.0
R154	Z151	Z152	12.7	141.0
R155	Z152	Z153	131	141.0
R156	Z151	Z154	189.1	141.0
R157	Z154	Z155	78.3	141.0
R158	Z155	Z156	31	141.0
R159	Z145	Z146	17.77	141.0
R160	Z146	Z144	90.77	141.0
R161	Z146	Z166	5	96.8
R162	Z148	Z167	5	96.8
R163	Z149	Z168	5	96.8
R164	Z150	Z169	5	96.8
R165	Z152	Z170	5	96.8
R166	Z153	Z171	5	96.8
R167	Z153	Z172	5	96.8
R168	Z154	Z173	5	96.8
R169	Z155	Z174	5	96.8
G170	Z147	Z175	1472.3	600
G171	Z175	Z176	219.9	400
G172	Z176	Z177	220.58	400
R172	Z177	Z178	10.81	197.4
R173	Z178	Z179	171.80	197.4
R174	Z179	Z180	60	197.4
R175	Z180	Z181	50	197.4
R176	Z181	Z182	13.6	197.4
R177	Z182	Z183	82.8	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R178	Z183	Z184	11.4	141.0
R179	Z184	Z185	89.8	141.0
R180	Z185	Z186	109.2	141.0
R181	Z183	Z187	223.6	141.0
R182	Z187	Z188	94.3	141.0
R183	Z188	Z189	22.2	141.0
R184	Z189	Z190	15.82	141.0
R185	Z188	Z191	32.5	141.0
R186	Z191	Z192	87	141.0
R187	Z192	Z193	10.5	141.0
R188	Z178	Z194	17.19	96.8
R189	Z179	Z195	5	96.8
R190	Z180	Z196	5	96.8
R191	Z181	Z197	5	96.8
R192	Z182	Z198	5	96.8
R193	Z184	Z199	5	96.8
R194	Z185	Z200	5	96.8
R195	Z187	Z201	5	96.8
R196	Z189	Z202	5	96.8
R197	Z191	Z203	5	96.8
R198	Z192	Z204	5	96.8
G199	Z177	Z205	379.4	400
G200	Z205	Z206	385	400
G201	Z206	Z207	302.8	500
G202	Z207	Z208	873.57	500
G203	Z208	Z209	159.2	500
R200	Z207	Z210	2.6	141.0
R201	Z210	Z211	5.7	141.0
R202	Z211	Z212	52.01	141.0
R203	Z212	Z213	6.8	141.0
R204	Z210	Z214	4	141.0
R205	Z214	Z215	47.3	141.0
R206	Z212	Z216	5	96.8
R207	Z211	Z217	5	96.8
R208	Z214	Z218	21.86	96.8
R209	Z208	Z219	3.7	197.4
R210	Z219	Z220	46.2	197.4
R211	Z220	Z221	22.1	197.4
R212	Z221	Z222	4	197.4
R213	Z222	Z223	83.2	197.4
R214	Z223	Z224	144.3	197.4
R215	Z224	Z225	18.9	197.4
R216	Z225	Z226	77.3	197.4
R217	Z226	Z227	137.1	197.4
R218	Z227	Z231	104.6	141.0
R219	Z231	Z232	344.4	141.0
R220	Z232	Z233	51.3	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R221	Z227	Z228	228.1	141.0
R222	Z228	Z229	98.5	141.0
R223	Z229	Z230	78.6	141.0
R224	Z221	Z234	539.7	141.0
R225	Z234	Z235	26	141.0
R226	Z235	Z236	70.4	141.0
R48	Z143	Z164	271.5	197.4
R70	Z164	Z41	3	197.4
R148	Z41	Z253	23	197.4
R170	Z47	Z237	119.4	197.4
R171	Z237	Z238	16.2	141
R199	Z238	Z239	153.6	141
R227	Z239	Z240	32.5	141
R228	Z240	Z241	33.8	141
R229	Z241	Z242	34.3	141
R230	Z242	Z243	45.9	141
R231	Z243	Z244	131.1	141
R232	Z244	Z245	20.3	141
R233	Z245	Z246	16.4	141
R234	Z246	Z268	18.2	141.0
R235	Z247	Z248	70.4	141.0
R236	Z248	Z249	37.8	141.0
R237	Z246	Z250	3	141.0
R238	Z250	Z251	103	141.0
R239	Z41	Z252	5	96.8
R240	Z253	Z47	27.7	197.4
R241	Z253	Z254	5	96.8
R242	Z253	Z255	5	141.0
R243	Z47	Z256	5	96.8
R244	Z237	Z257	5	96.8
R245	Z238	Z258	5	96.8
R246	Z239	Z259	5	96.8
R247	Z240	Z260	5	96.8
R248	Z241	Z261	5	96.8
R249	Z242	Z262	5	96.8
R250	Z242	Z263	5	96.8
R251	Z243	Z265	5	96.8
R252	Z243	Z264	5	96.8
R253	Z244	Z266	5	96.8
R254	Z245	Z267	5	96.8
R255	Z268	Z247	70.4	141.0
R256	Z268	Z271	5	96.8
R257	Z247	Z270	5	96.8
R258	Z248	Z269	5	96.8
R259	Z250	Z272	5	96.8
R260	Z251	Z273	5	96.8
R261	Z251	Z274	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R263	Z165	Z275	8	141.0
R264	Z275	Z276	6	141.0
R265	Z276	Z277	136.6	141.0
R266	Z277	Z278	40	141.0
R267	Z278	Z279	14.2	141.0
R268	Z279	Z280	67.4	141.0
R269	Z165	Z281	589.9	141
R270	Z281	Z282	7.7	141.0
R271	Z281	Z291	382.8	400
R272	Z284	Z286	145.2	141.0
R273	Z286	Z287	120.5	141.0
R274	Z287	Z288	116.4	141.0
R275	Z288	Z289	133.1	141.0
R276	Z289	Z290	17.6	141.0
R277	Z291	Z284	7	141
R278	Z284	Z283	184.7	141.0
R279	Z284	Z285	5	141
R280	Z285	Z1245	300	141
R281	Z291	Z293	557.27	400
R282	Z275	Z295	5	96.8
R283	Z276	Z296	5	96.8
R284	Z277	Z297	5	96.8
R285	Z278	Z298	5	96.8
R286	Z279	Z299	5	96.8
R287	Z282	Z300	5	96.8
R288	Z282	Z301	5	96.8
R289	Z285	Z302	5	96.8
R290	Z286	Z306	5	96.8
R291	Z287	Z305	5	96.8
R292	Z288	Z304	5	96.8
R293	Z289	Z303	5	96.8
R294	Z281	Z294	325.5	400
R295	Z294	Z307	2.8	197.4
R296	Z307	Z308	593.6	141
R297	Z308	Z321	5	96.8
R298	Z308	Z309	338	141.0
R299	Z309	Z310	7.5	141.0
R300	Z310	Z311	59.00	141.0
R301	Z311	Z313	44.3	141.0
R302	Z313	Z314	9.8	141.0
R303	Z314	Z316	70	141.0
R304	Z311	Z317	419.9	141.0
R305	Z317	Z318	5	96.8
R306	Z317	Z319	8.4	141.0
R307	Z314	Z315	5	96.8
R308	Z313	Z312	5	96.8
R309	Z310	Z320	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R310	Z294	Z322	1122.7	400
R311	Z307	Z323	9	197.4
R312	Z323	Z324	94	197.4
R313	Z324	Z325	81	141
R314	Z325	Z326	21.8	141
R315	Z326	Z327	11.5	141
R316	Z327	Z328	204.3	141.0
R317	Z328	Z329	7.8	141.0
R318	Z329	Z330	96	141.0
R319	Z330	Z331	86	141.0
R320	Z331	Z332	292.5	141.0
R321	Z332	Z333	5.6	141.0
R322	Z333	Z334	38	141.0
R323	Z323	Z336	5	96.8
R324	Z323	Z335	5	96.8
R325	Z324	Z337	5	96.8
R326	Z325	Z338	5	96.8
R327	Z326	Z339	5	96.8
R328	Z327	Z340	5	96.8
R329	Z328	Z341	5	96.8
R330	Z329	Z342	5	96.8
R331	Z330	Z343	5	96.8
R332	Z330	Z344	5	96.8
R333	Z331	Z345	5	96.8
R334	Z332	Z346	5	96.8
R335	Z333	Z347	5	96.8
R336	Z334	Z349	5	96.8
R337	Z334	Z348	5	96.8
R338	Z322	Z350	290	141.0
R339	Z351	Z352	246.5	141.0
R340	Z352	Z353	126.3	141.0
R341	Z353	Z354	167	141.0
R342	Z354	Z355	207	141.0
R343	Z355	Z356	57.1	141.0
R344	Z355	Z357	257.4	141.0
R345	Z354	Z363	5	96.8
R346	Z354	Z362	5	96.8
R347	Z353	Z361	5	96.8
R348	Z352	Z360	5	96.8
R349	Z351	Z359	5	96.8
R350	Z350	Z358	5	96.8
R351	Z350	Z351	8.8	141.0
R352	Z322	Z364	835.5	400
R353	Z364	Z365	825.7	400
R354	Z206	Z365	302.8	400
R355	Z364	Z366	5	141.0
R356	Z366	Z367	142.5	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R357	Z367	Z368	297.05	141.0
R358	Z366	Z388	5	96.8
R359	Z367	Z387	5	96.8
R360	Z367	Z386	5	96.8
R361	Z364	Z369	22.8	197.4
R362	Z369	Z389	48	197.4
R363	Z389	Z370	386	197.4
R364	Z370	Z371	8.8	141.0
R365	Z371	Z372	174.8	141.0
R366	Z372	Z373	135.5	141.0
R367	Z373	Z374	42.4	141.0
R368	Z389	Z390	127	141.0
R369	Z370	Z375	62.3	141.0
R370	Z375	Z376	2	141.0
R371	Z376	Z377	155.7	141.0
R372	Z377	Z378	9.8	141.0
R373	Z378	Z379	82	141.0
R374	Z379	Z380	143.1	141.0
R375	Z380	Z381	124.5	141.0
R376	Z378	Z382	30.6	141.0
R377	Z382	Z383	9.4	141.0
R378	Z383	Z384	166.7	141.0
R379	Z384	Z385	152.4	141.0
R380	Z369	Z391	5	96.8
R381	Z373	Z394	5	96.8
R382	Z372	Z393	5	96.8
R383	Z371	Z392	5	96.8
R384	Z375	Z395	5	96.8
R385	Z376	Z396	5	96.8
R386	Z377	Z397	5	96.8
R387	Z379	Z398	5	96.8
R388	Z380	Z399	5	96.8
R389	Z365	Z401	5	141.0
R390	Z401	Z400	5.2	141.0
R391	Z400	Z402	148.3	141.0
R392	Z402	Z403	95	141.0
R393	Z403	Z404	337.6	141.0
R394	Z404	Z405	442	141.0
R395	Z405	Z406	61.5	141.0
R396	Z400	Z407	5	96.8
R397	Z402	Z408	5	96.8
R398	Z403	Z409	5	96.8
R399	Z404	Z410	5	96.8
R400	Z405	Z411	20.84	141.0
R401	Z401	Z412	19.3	141.0
R402	Z412	Z417	5	96.8
R403	Z412	Z416	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R404	Z412	Z413	94.8	141.0
R405	Z413	Z418	5	96.8
R406	Z413	Z420	5	96.8
R407	Z413	Z414	105.6	141.0
R408	Z414	Z419	5	96.8
R409	Z414	Z415	70.3	141.0
R410	Z219	Z421	138.2	141.0
R411	Z421	Z422	10.7	141.0
R412	Z422	Z423	160	141.0
R413	Z423	Z424	104.3	141.0
R414	Z423	Z425	5	96.8
R415	Z422	Z426	5	96.8
R416	Z421	Z427	5	96.8
R417	Z235	Z428	5	96.8
R418	Z234	Z429	5	96.8
R419	Z220	Z430	5	96.8
R420	Z229	Z437	5	96.8
R421	Z228	Z436	5	96.8
R422	Z226	Z435	5	96.8
R423	Z225	Z434	5	96.8
R424	Z224	Z433	5	96.8
R425	Z223	Z432	5	96.8
R426	Z222	Z431	5	96.8
R427	Z231	Z438	5	96.8
R428	Z232	Z439	5	96.8
G429	Z209	Z467	480.3	500
G430	Z467	Z466	238.5	500
G431	Z466	Z463	303.93	500
R429	Z463	Z462	15.40	312.8
R431	Z461	Z459	16.8	141
R433	Z457	Z455	13.8	141
R434	Z455	Z453	24.7	141
R435	Z453	Z451	38.3	141
R436	Z451	Z448	66.8	141
R437	Z448	Z446	328	197.4
R438	Z446	Z444	24	197.4
R439	Z444	Z442	11.9	197.4
R440	Z442	Z440	319.2	197.4
R441	Z440	Z209	64.8	197.4
R442	Z462	Z465	5	96.8
R443	Z462	Z464	5	96.8
R444	Z459	Z460	5	96.8
R445	Z440	Z441	5	96.8
R446	Z442	Z443	5	96.8
R447	Z444	Z445	5	96.8
R448	Z446	Z447	5	96.8
R449	Z448	Z450	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R450	Z448	Z449	5	96.8
R451	Z451	Z452	5	96.8
R452	Z453	Z454	5	96.8
R453	Z455	Z456	5	96.8
R454	Z457	Z458	5	96.8
R455	Z467	Z468	4.4	141.0
R456	Z468	Z469	33.2	141.0
R457	Z469	Z471	5	96.8
R458	Z469	Z470	214	141.0
R459	Z468	Z472	84.7	141.0
R460	Z472	Z474	64.9	141.0
R461	Z474	Z476	34.5	141.0
R462	Z472	Z473	5	96.8
R463	Z474	Z475	5	96.8
R464	Z205	Z481	2	141.0
R465	Z481	Z477	186	141.0
R466	Z477	Z479	322.7	141.0
R467	Z481	Z480	5	96.8
R468	Z477	Z478	5	96.8
R469	Z461	Z482	4.8	277.6
R470	Z482	Z483	38.1	277.6
R471	Z483	Z484	70.8	277.6
R472	Z484	Z485	58.5	277.6
R473	Z482	Z497	5	96.8
R474	Z483	Z498	5	96.8
R475	Z484	Z499	5	96.8
R476	Z485	Z500	5	96.8
R477	Z485	Z486	401.1	277.6
R478	Z486	Z487	194.6	221.2
R479	Z487	Z488	12.6	221.2
R480	Z486	Z501	5	96.8
R481	Z487	Z502	5	96.8
R482	Z488	Z490	391.7	197.4
R483	Z490	Z489	3.1	197.4
R484	Z489	Z493	9	141.0
R485	Z493	Z494	92.8	141.0
R486	Z494	Z495	28.8	141.0
R487	Z495	Z496	32.16	141.0
R488	Z489	Z491	152.9	141.0
R489	Z490	Z504	5	96.8
R490	Z491	Z503	5	96.8
R491	Z491	Z492	5.7	141.0
R492	Z495	Z505	5	96.8
R493	Z494	Z506	5	96.8
R494	Z493	Z507	5	96.8
R495	Z493	Z508	5	96.8
R496	Z176	Z561	105.5	221.2

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R497	Z561	Z562	5.4	141.0
R498	Z562	Z565	5.4	141.0
R499	Z565	Z564	99.3	141.0
R500	Z565	Z563	5	96.8
R501	Z575	Z566	5	96.8
R502	Z562	Z575	10.2	141.0
R503	Z575	Z567	119	141.0
R504	Z567	Z569	38.1	141.0
R505	Z567	Z568	5	96.8
R506	Z569	Z570	5	96.8
R507	Z569	Z518	223.4	141.0
R508	Z518	Z519	62.7	141.0
R509	Z518	Z571	5	96.8
R510	Z519	Z520	144.1	141.0
R511	Z519	Z521	236.5	141.0
R512	Z521	Z522	320.1	141.0
R513	Z522	Z523	11.7	141.0
R514	Z523	Z524	121	141.0
R515	Z523	Z574	5	96.8
R516	Z522	Z573	5	96.8
R517	Z521	Z572	5	96.8
R518	Z561	Z516	549.46	221.2
R519	Z516	Z515	239.7	221.2
R520	Z515	Z514	190.8	221.2
R521	Z516	Z560	5	96.8
R522	Z515	Z559	5	96.8
R523	Z514	Z554	7.1	141.0
R524	Z554	Z556	117.8	141.0
R525	Z556	Z558	55.2	141.0
R526	Z554	Z555	5	96.8
R527	Z556	Z557	5	96.8
R528	Z514	Z513	525.6	221.2
R529	Z466	Z525	5.6	221.2
R530	Z525	Z509	120.7	221.2
R531	Z509	Z510	36.1	221.2
R532	Z510	Z511	117.2	221.2
R533	Z511	Z512	29.4	221.2
R534	Z512	Z513	230.4	221.2
R535	Z512	Z530	5	96.8
R536	Z511	Z529	5	96.8
R537	Z510	Z528	5	96.8
R538	Z509	Z527	5	96.8
R539	Z525	Z526	5	96.8
R540	Z513	Z531	4.4	197.4
R541	Z531	Z532	200.5	141.0
R542	Z532	Z576	1.2	141.0
R543	Z576	Z535	28	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R544	Z532	Z533	5	96.8
R545	Z576	Z534	5	96.8
R546	Z531	Z536	8.8	197.4
R547	Z536	Z539	22.2	197.4
R548	Z539	Z540	106.8	197.4
R549	Z540	Z541	9.8	141.0
R550	Z541	Z543	31.7	141.0
R551	Z543	Z546	24.5	141.0
R552	Z536	Z537	5	96.8
R553	Z539	Z538	5	96.8
R554	Z541	Z542	5	96.8
R555	Z543	Z544	5	96.8
R556	Z546	Z545	5	96.8
R557	Z540	Z547	94.1	141
R558	Z547	Z549	252.2	141
R559	Z549	Z551	48.1	141
R560	Z551	Z552	45.1	141.0
R561	Z551	Z553	5	96.8
R562	Z549	Z550	5	96.8
R563	Z547	Z548	5	96.8
R564	Z175	Z40	647	500
G565	Z463	Z577	463.2	500
R565	Z577	Z578	13	141
R566	Z578	Z579	81.4	141
R567	Z579	Z580	104.3	141
R568	Z580	Z581	128	141
R569	Z580	Z588	92.4	141
R570	Z588	Z590	17	141.0
R571	Z590	Z592	45.3	141.0
R572	Z578	Z583	5.3	141
R573	Z583	Z585	14.5	141.0
R574	Z585	Z587	5	96.8
R575	Z585	Z586	5	96.8
R576	Z583	Z584	5	96.8
R577	Z590	Z591	5	96.8
R578	Z588	Z589	5	96.8
R579	Z579	Z582	21.6	141.0
G580	Z577	Z593	400	500
G581	Z593	Z595	355.4	500
R580	Z594	Z597	5	96.8
R581	Z596	Z598	5	96.8
R582	Z602	Z603	5	96.8
R583	Z605	Z606	5	96.8
R584	Z609	Z610	5	96.8
R585	Z611	Z612	5	96.8
R586	Z613	Z614	5	96.8
R587	Z615	Z616	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R588	Z615	Z617	5	96.8
R589	Z620	Z621	5	96.8
R590	Z622	Z623	5	96.8
R591	Z624	Z625	5	96.8
R592	Z626	Z628	5	96.8
R593	Z626	Z629	5	96.8
R594	Z631	Z632	5	96.8
R595	Z633	Z634	5	96.8
R596	Z593	Z594	5.4	277.6
R597	Z594	Z596	313.3	277.6
R598	Z596	Z599	49.3	277.6
R599	Z599	Z600	18.9	141.0
R600	Z599	Z601	504	277.6
R601	Z601	Z604	24.9	277.6
R602	Z604	Z605	21.3	141.0
R603	Z605	Z607	41.7	141.0
R604	Z601	Z602	5	277.6
R605	Z602	Z608	336.4	277.6
R606	Z608	Z609	50.5	197.4
R607	Z609	Z613	245	197.4
R608	Z613	Z615	80.4	197.4
R609	Z615	Z618	17.5	141.0
R610	Z608	Z611	101	277.6
R611	Z611	Z619	191.3	277.6
R612	Z619	Z622	37.8	197.4
R613	Z622	Z624	85.9	197.4
R614	Z624	Z626	11.4	141
R615	Z626	Z627	7.4	141.0
R616	Z619	Z620	4.4	197.4
R617	Z620	Z633	185.8	197.4
R618	Z633	Z631	35.8	141
R619	Z631	Z630	345.2	141
R620	Z604	Z517	116.7	277.6
R621	Z517	Z635	436.7	277.6
R622	Z635	Z636	497.7	277.6
R623	Z595	Z637	90.6	277.6
R624	Z637	Z636	301.5	277.6
R625	Z639	Z639	5	96.8
R627	Z517	Z640	5	96.8
R628	Z635	Z641	5.6	141
R629	Z641	Z642	5.6	141.0
R630	Z641	Z643	140.3	141
R631	Z643	Z645	5	96.8
R632	Z643	Z646	5	96.8
R633	Z643	Z644	12.3	141.0
R634	Z642	Z648	5	96.8
R635	Z642	Z647	182.6	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R636	Z637	Z649	6.1	141.0
R637	Z649	Z638	37	141.0
R638	Z636	Z650	125.1	141.0
R639	Z650	Z651	13.8	141.0
R640	Z651	Z655	167.2	141.0
R641	Z650	Z652	5	96.8
R642	Z651	Z653	5	96.8
R643	Z651	Z654	5	96.8
R644	Z595	Z656	440.3	500
R645	Z656	Z657	506.6	500
R646	Z657	Z658	191.7	500
R647	Z658	Z659	278.4	500
R648	Z659	Z660	355.9	500
R649	Z660	Z661	279	500
R650	Z661	Z662	669.8	500
R651	Z662	Z663	282.5	500
R652	Z664	Z663	606.5	500
R653	Z665	Z664	503.8	500
R654	Z40	Z665	241.2	500
R655	Z666	Z667	5	96.8
R656	Z666	Z668	5	96.8
R657	Z39	Z666	41	141.0
R658	Z674	Z676	5	96.8
R659	Z672	Z677	5	96.8
R660	Z669	Z679	5	96.8
R661	Z670	Z678	5	96.8
R662	Z673	Z680	5	96.8
R663	Z681	Z687	5	96.8
R664	Z682	Z688	5	96.8
R665	Z683	Z689	5	96.8
R666	Z684	Z690	5	96.8
R667	Z685	Z691	5	96.8
R668	Z665	Z669	43	141
R669	Z669	Z670	54.4	141
R670	Z670	Z671	212.7	141
R671	Z671	Z674	171.4	141.0
R672	Z674	Z675	43.7	141.0
R673	Z671	Z672	10.8	141.0
R674	Z672	Z673	189.3	141.0
R675	Z673	Z681	75.6	141.0
R676	Z681	Z682	55.7	141.0
R677	Z682	Z683	36.8	141.0
R678	Z683	Z684	13	141.0
R679	Z684	Z685	70.7	141.0
R680	Z685	Z686	130.9	141.0
R681	Z695	Z696	5	96.8
R682	Z693	Z694	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R683	Z664	Z692	4.6	141.0
R684	Z692	Z693	1.7	141.0
R685	Z693	Z695	85	141.0
R686	Z695	Z697	19.5	141.0
R687	Z692	Z698	3.9	141.0
R688	Z698	Z702	168.3	141.0
R689	Z702	Z700	40.2	141.0
R690	Z702	Z701	5	96.8
R691	Z698	Z699	5	96.8
R692	Z703	Z704	125.6	141.0
R693	Z704	Z705	233.7	141.0
R694	Z705	Z706	108.5	141.0
R695	Z706	Z709	123.5	141.0
R696	Z709	Z710	232.8	141.0
R697	Z709	Z707	43.5	141.0
R698	Z707	Z708	12.8	141.0
R699	Z703	Z711	5	96.8
R700	Z704	Z712	5	96.8
R701	Z705	Z713	5	96.8
R702	Z706	Z714	5	96.8
R703	Z707	Z715	5	96.8
R704	Z663	Z703	9	141.0
R705	Z662	Z716	82.3	141
R706	Z716	Z717	318.1	141
R707	Z717	Z718	192.7	141.0
R708	Z718	Z719	68.9	141.0
R709	Z717	Z720	94.5	141
R710	Z720	Z721	13.7	141
R711	Z721	Z722	40.2	141.0
R712	Z722	Z723	84.7	141.0
R713	Z722	Z724	5	96.8
R714	Z721	Z725	5	96.8
R715	Z720	Z726	5	96.8
R716	Z718	Z727	5	96.8
R626	Z657	Z728	2.7	197.4
R717	Z728	Z729	23.9	141.0
R718	Z730	Z729	5	96.8
R719	Z729	Z731	235	141.0
R720	Z728	Z732	187.7	197.4
R721	Z732	Z734	65.9	197.4
R722	Z734	Z736	200.9	197.4
R723	Z736	Z738	161	197.4
R724	Z738	Z740	160.5	141
R725	Z740	Z742	13.1	141
R726	Z742	Z743	45.4	141
R727	Z743	Z744	9.4	141
R728	Z744	Z747	466	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R729	Z744	Z746	5	96.8
R730	Z743	Z745	5	96.8
R731	Z740	Z741	5	96.8
R732	Z738	Z739	5	96.8
R733	Z736	Z737	5	96.8
R734	Z734	Z735	5	96.8
R735	Z732	Z733	5	96.8
R736	Z656	Z748	8.5	197.4
R737	Z748	Z749	6.8	141
R738	Z749	Z750	20.2	141
R739	Z750	Z752	85.5	141
R740	Z752	Z753	4.3	141
R741	Z753	Z754	9	141.0
R742	Z753	Z756	148.8	141.0
R743	Z754	Z755	78.04	141.0
R744	Z750	Z751	41.2	141
R745	Z751	Z761	110.6	141
R746	Z761	Z762	20.5	141.0
R747	Z762	Z763	14.1	141.0
R748	Z763	Z764	48.89	141.0
R749	Z763	Z765	5	96.8
R750	Z762	Z766	5	96.8
R751	Z761	Z767	5	96.8
R752	Z751	Z760	5	96.8
R753	Z749	Z759	5	96.8
R754	Z752	Z758	5	96.8
R755	Z754	Z757	5	96.8
R756	Z774	Z776	5	96.8
R757	Z771	Z777	5	96.8
R758	Z770	Z778	5	96.8
R759	Z769	Z779	5	96.8
R760	Z768	Z780	5	96.8
R761	Z748	Z768	510.8	197.4
R762	Z768	Z769	18.4	197.4
R763	Z769	Z770	96.3	197.4
R764	Z770	Z771	10.4	141
R765	Z771	Z772	139.1	141
R766	Z772	Z774	61.3	141.0
R767	Z774	Z775	9.1	141.0
R768	Z772	Z773	202.6	141.0
R769	Z659	Z781	48.6	277.6
R770	Z781	Z785	78.2	277.6
R771	Z785	Z782	128.1	277.6
R772	Z782	Z783	269.1	277.6
R773	Z783	Z784	64.2	277.6
R774	Z784	Z786	247.3	277.6
R775	Z786	Z787	47.2	277.6

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R776	Z787	Z788	53.7	277.6
R777	Z788	Z789	9.9	277.6
R778	Z789	Z790	29	277.6
R779	Z790	Z791	207.9	221.2
R780	Z791	Z792	90.2	221.2
R781	Z792	Z793	193.2	221.2
R782	Z793	Z794	83.3	221.2
R783	Z794	Z795	10.7	221.2
R798	Z809	Z795	224.05	277.6
R785	Z781	Z808	5	96.8
R786	Z782	Z807	5	96.8
R787	Z783	Z806	5	96.8
R788	Z784	Z805	5	96.8
R789	Z786	Z804	5	96.8
R790	Z787	Z803	5	96.8
R791	Z788	Z802	5	96.8
R792	Z789	Z801	5	96.8
R793	Z791	Z800	5	96.8
R794	Z792	Z799	5	96.8
R795	Z793	Z798	5	96.8
R796	Z794	Z797	5	96.8
R797	Z809	Z796	20.86	96.8
R799	Z661	Z809	10.74	277.6
R800	Z790	Z810	5.7	197.4
R801	Z810	Z811	112.1	197.4
R802	Z811	Z812	88.7	197.4
R803	Z812	Z813	88.5	141
R804	Z813	Z814	89.2	141
R805	Z814	Z815	87.3	141.0
R806	Z815	Z816	118.8	141.0
R807	Z816	Z817	76.1	141.0
R808	Z816	Z818	116.9	141.0
R809	Z810	Z819	5	96.8
R810	Z811	Z820	5	96.8
R811	Z812	Z821	5	96.8
R812	Z813	Z822	5	96.8
R813	Z814	Z823	5	96.8
R814	Z815	Z824	5	96.8
R784	Z825	Z838	5	96.8
R815	Z826	Z839	5	96.8
R816	Z827	Z840	5	96.8
R817	Z828	Z841	5	96.8
R818	Z829	Z842	5	96.8
R819	Z831	Z843	5	96.8
R820	Z831	Z844	5	96.8
R821	Z833	Z845	5	96.8
R822	Z834	Z847	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R823	Z835	Z848	5	96.8
R824	Z836	Z849	5	96.8
R825	Z785	Z825	122.1	277.6
R826	Z825	Z826	233.5	277.6
R827	Z826	Z827	33	277.6
R828	Z827	Z828	65.4	221.2
R829	Z828	Z829	138.6	221.2
R830	Z829	Z830	163.2	221.2
R831	Z830	Z831	8.3	141.0
R832	Z830	Z832	322.9	197.4
R833	Z832	Z846	106.9	141.0
R834	Z832	Z833	1.3	197.4
R835	Z833	Z834	83.9	197.4
R836	Z834	Z835	150.6	141
R837	Z835	Z836	34.9	141.0
R838	Z836	Z837	60.7	141.0
R839	Z795	Z850	189	221.2
R840	Z850	Z851	8.9	221.2
R841	Z851	Z852	143.3	221.2
R842	Z852	Z853	44.2	221.2
R843	Z853	Z854	171.3	221.2
R844	Z854	Z855	103.3	197.4
R845	Z855	Z856	64	141
R846	Z856	Z857	61.3	141
R847	Z857	Z858	80.2	141
R848	Z858	Z859	56.2	141
R849	Z859	Z871	121	141.0
R850	Z854	Z860	316	141
R851	Z860	Z861	122.9	141
R852	Z861	Z874	201	141.0
R853	Z850	Z862	5	96.8
R854	Z851	Z863	5	96.8
R855	Z852	Z864	5	96.8
R856	Z853	Z865	5	96.8
R857	Z855	Z866	5	96.8
R858	Z856	Z867	5	96.8
R859	Z857	Z868	5	96.8
R860	Z858	Z869	5	96.8
R861	Z859	Z870	5	96.8
R862	Z860	Z872	5	96.8
R863	Z861	Z873	5	96.8
R864	Z3	Z875	803.3	400
R865	Z875	Z882	7.5	141.0
R866	Z882	Z883	18.5	141.0
R867	Z883	Z884	155.6	141.0
R868	Z884	Z885	156.9	141.0
R869	Z885	Z886	71.4	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R870	Z886	Z887	367.4	141.0
R871	Z886	Z961	5	96.8
R872	Z885	Z962	5	96.8
R873	Z885	Z963	5	96.8
R874	Z884	Z964	5	96.8
R875	Z884	Z965	5	96.8
R876	Z883	Z966	5	96.8
R877	Z882	Z967	5	96.8
R878	Z875	Z876	383.9	400
R879	Z876	Z888	477.2	400
R880	Z888	Z897	507.9	400
R881	Z876	Z877	20	197.4
R882	Z877	Z878	32.5	141.0
R883	Z878	Z879	183.4	141.0
R884	Z879	Z880	278.4	141.0
R885	Z880	Z881	212.9	141.0
R886	Z878	Z970	5	96.8
R887	Z879	Z969	5	96.8
R888	Z880	Z968	5	96.8
R889	Z877	Z895	533.7	197.4
R890	Z895	Z896	151	197.4
R891	Z896	Z894	27.1	197.4
R896	Z888	Z971	8.8	197.4
R897	Z889	Z890	148	197.4
R898	Z890	Z891	213	197.4
R899	Z891	Z892	201.5	197.4
R900	Z892	Z893	192.7	197.4
R901	Z893	Z894	27.1	197.4
R902	Z971	Z889	251.5	197.4
R903	Z897	Z899	550.3	400
R904	Z1248	Z960	264.3	312.8
R905	Z960	Z935	1161.6	312.8
R906	Z935	Z933	206.7	400
R907	Z933	Z899	373.5	400
R908	Z899	Z900	26.4	141.0
R909	Z900	Z901	140	141.0
R910	Z900	Z972	5	96.8
R911	Z900	Z973	5	96.8
R912	Z897	Z898	3.9	312.8
R913	Z898	Z902	1143.2	312.8
R914	Z898	Z974	5	96.8
R915	Z902	Z903	33	312.8
R916	Z903	Z904	90.3	312.8
R917	Z904	Z905	13.5	312.8
R918	Z905	Z906	15.7	312.8
R919	Z906	Z907	146.3	312.8
R920	Z907	Z908	109.5	312.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R921	Z908	Z909	204	312.8
R922	Z909	Z910	100.9	312.8
R923	Z909	Z981	5	96.8
R924	Z908	Z980	5	96.8
R925	Z907	Z979	5	96.8
R926	Z906	Z978	5	96.8
R927	Z905	Z977	5	96.8
R928	Z904	Z976	5	96.8
R929	Z903	Z975	5	96.8
R930	Z933	Z934	12.9	312.8
R931	Z934	Z932	294.6	312.8
R932	Z932	Z931	209.5	312.8
R933	Z931	Z930	37.3	312.8
R934	Z930	Z929	363.5	312.8
R935	Z929	Z928	69	312.8
R936	Z928	Z927	99.8	312.8
R937	Z927	Z926	192.8	312.8
R938	Z926	Z925	150.8	312.8
R939	Z925	Z924	33.5	312.8
R940	Z924	Z923	101.4	312.8
R941	Z923	Z922	150.2	312.8
R942	Z922	Z921	46.9	312.8
R943	Z921	Z920	36.5	312.8
R944	Z920	Z919	210.77	312.8
R945	Z919	Z918	114.5	312.8
R946	Z918	Z917	69.4	312.8
R947	Z917	Z916	105.3	312.8
R948	Z916	Z915	91.6	312.8
R949	Z915	Z914	143.4	312.8
R950	Z914	Z913	145.1	312.8
R951	Z913	Z912	191.7	312.8
R952	Z912	Z911	249.3	312.8
R953	Z911	Z910	143.2	312.8
R954	Z934	Z982	5	96.8
R955	Z932	Z983	5	96.8
R956	Z931	Z984	5	96.8
R957	Z930	Z985	20.46	96.8
R958	Z929	Z986	5	96.8
R959	Z928	Z987	5	96.8
R960	Z927	Z988	5	96.8
R961	Z926	Z989	5	96.8
R962	Z924	Z990	5	96.8
R963	Z923	Z991	5	96.8
R964	Z922	Z992	5	96.8
R965	Z921	Z993	5	96.8
R966	Z920	Z994	5	96.8
R967	Z918	Z995	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R968	Z917	Z996	5	96.8
R969	Z916	Z997	5	96.8
R970	Z915	Z998	5	96.8
R971	Z914	Z999	5	96.8
R972	Z913	Z1000	5	96.8
R973	Z912	Z1001	5	96.8
R974	Z911	Z1002	5	96.8
R975	Z971	Z1011	5	96.8
R976	Z889	Z1010	5	96.8
R977	Z890	Z1009	5	96.8
R978	Z891	Z1008	5	96.8
R979	Z891	Z1007	5	96.8
R980	Z892	Z1006	5	96.8
R981	Z893	Z1005	5	96.8
R982	Z896	Z1004	5	96.8
R983	Z895	Z1003	5	96.8
R984	Z894	Z1012	405.2	197.4
R985	Z1012	Z1013	210.7	141
R986	Z1013	Z1014	79.4	141
R987	Z1014	Z1015	257.4	141
R988	Z1015	Z1016	47.92	141
R989	Z1016	Z1017	169.6	141
R990	Z1017	Z1018	98.3	141.0
R991	Z1018	Z1019	144.7	141.0
R992	Z1019	Z1020	226.2	141.0
R993	Z1017	Z1021	29.9	141.0
R994	Z1021	Z1022	331.5	141.0
R995	Z1012	Z1023	5	96.8
R996	Z1012	Z1024	30.48	96.8
R997	Z1013	Z1025	5	96.8
R998	Z1014	Z1026	5	96.8
R999	Z1015	Z1027	5	96.8
R1000	Z1016	Z1028	5	96.8
R1001	Z1018	Z1029	5	96.8
R1002	Z1019	Z1030	5	96.8
R1003	Z1021	Z1031	5	96.8
R892	Z902	Z1038	8.6	141
R893	Z1038	Z1037	31.8	141
R894	Z1037	Z1036	110	141
R895	Z1036	Z1035	56	141
R1004	Z1035	Z1034	301.8	141
R1005	Z1034	Z1033	178.1	141.0
R1006	Z1033	Z1032	25.8	141.0
R1007	Z1033	Z1039	5	96.8
R1008	Z1034	Z1040	5	96.8
R1009	Z1035	Z1041	5	96.8
R1010	Z1036	Z1042	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1011	Z1037	Z1043	5	96.8
R1012	Z1038	Z1044	5	96.8
R1013	Z1038	Z1045	5	96.8
R1014	Z910	Z1046	15.4	141
R1015	Z1046	Z1047	32.2	141
R1016	Z1047	Z1048	50.4	141
R1017	Z1048	Z1049	32	141
R1018	Z1049	Z1050	74.2	141
R1019	Z1050	Z1051	21.5	141
R1020	Z1051	Z1052	390.4	141
R1021	Z1052	Z1053	76.9	141.0
R1022	Z1053	Z1054	44.6	141.0
R1023	Z1054	Z1055	103.2	141.0
R1024	Z1046	Z1064	5	96.8
R1025	Z1047	Z1063	5	96.8
R1026	Z1048	Z1062	5	96.8
R1027	Z1049	Z1061	5	96.8
R1028	Z1050	Z1060	5	96.8
R1029	Z1051	Z1059	5	96.8
R1030	Z1052	Z1058	5	96.8
R1031	Z1053	Z1057	5	96.8
R1032	Z1054	Z1056	5	96.8
R1033	Z1065	Z1075	5	96.8
R1034	Z1066	Z1074	5	96.8
R1035	Z1067	Z1073	5	96.8
R1036	Z1068	Z1072	5	96.8
R1037	Z1069	Z1071	5	96.8
R1038	Z919	Z1065	17.3	141
R1039	Z1065	Z1066	231.1	141
R1040	Z1066	Z1067	215.1	141
R1041	Z1067	Z1068	21.9	141
R1042	Z1068	Z1069	56.7	141.0
R1043	Z1069	Z1070	11.7	141.0
R1044	Z1076	Z1082	5	96.8
R1045	Z1076	Z1083	5	96.8
R1046	Z1077	Z1084	5	96.8
R1047	Z1078	Z1085	5	96.8
R1048	Z1079	Z1086	5	96.8
R1049	Z1080	Z1087	5	96.8
R1050	Z925	Z1076	13.15	141
R1051	Z1076	Z1077	381.1	141
R1052	Z1077	Z1078	146.5	141
R1053	Z1078	Z1079	111	141
R1054	Z1079	Z1080	368.5	141
R1055	Z1080	Z1081	158.1	141.0
R1056	Z936	Z1088	12.2	141.0
R1057	Z1088	Z1089	58.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1058	Z1089	Z1090	77.3	141.0
R1059	Z1090	Z1091	99.5	141.0
R1060	Z1091	Z1094	28.5	141.0
R1061	Z1094	Z1092	40.2	141.0
R1062	Z1092	Z1093	79.4	141.0
R1063	Z1094	Z1095	11.4	141.0
R1064	Z1095	Z1096	145.5	141.0
R1065	Z1095	Z1102	11.82	96.8
R1066	Z1092	Z1101	5	96.8
R1067	Z1091	Z1100	5	96.8
R1068	Z1090	Z1099	5	96.8
R1069	Z1089	Z1098	5	96.8
R1070	Z1088	Z1097	5	96.8
R1071	Z935	Z936	2.7	312.8
R1072	Z936	Z937	12	312.8
R1073	Z937	Z938	688.3	312.8
R1074	Z938	Z1108	530.5	221.2
R1075	Z938	Z939	10.60	141
R1076	Z939	Z1246	136.2	141
R1077	Z939	Z1103	5	96.8
R1079	Z942	Z943	150.6	141
R1080	Z943	Z944	381.9	141
R1082	Z945	Z946	141.3	141
R1083	Z946	Z947	90.4	141
R1084	Z947	Z948	188.8	141
R1085	Z948	Z949	293.7	141
R1086	Z949	Z950	28.6	141
R1088	Z951	Z952	52	197.4
R1089	Z952	Z953	23.4	197.4
R1090	Z953	Z954	174.2	197.4
R1091	Z954	Z955	16.5	197.4
R1092	Z955	Z956	37.2	197.4
R1093	Z956	Z957	114	197.4
R1095	Z1104	Z1105	268.6	141.0
R1096	Z1104	Z1107	5	96.8
R1097	Z1104	Z1106	5	96.8
R1099	Z1108	Z1111	76	141
R1100	Z1111	Z1109	16.7	141
R1101	Z1109	Z1110	69.3	141.0
R1102	Z1109	Z1112	94	141
R1103	Z1112	Z1113	121.5	141
R1104	Z1113	Z1114	12.3	141.0
R1105	Z1111	Z1117	5	96.8
R1106	Z1110	Z1118	5	96.8
R1107	Z1112	Z1116	5	96.8
R1108	Z1112	Z1119	5	96.8
R1109	Z1113	Z1115	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1110	Z942	Z1120	5	96.8
R1111	Z942	Z1121	5	96.8
R1112	Z943	Z1122	5	96.8
R1113	Z943	Z1123	5	96.8
R1114	Z944	Z1124	5	96.8
R1115	Z944	Z1125	5	96.8
R1116	Z945	Z1126	5	96.8
R1117	Z945	Z1127	5	96.8
R1118	Z946	Z1128	5	96.8
R1119	Z947	Z1129	5	96.8
R1120	Z948	Z1130	5	96.8
R1121	Z1130	Z1132	5	96.8
R1122	Z1130	Z1131	5	96.8
R1123	Z949	Z1133	5	96.8
R1124	Z950	Z1134	5	96.8
R1125	Z951	Z1135	5	96.8
R1126	Z952	Z1136	5	96.8
R1127	Z953	Z1137	5	96.8
R1128	Z956	Z1141	5	96.8
R1129	Z955	Z1140	5	96.8
R1130	Z954	Z1138	5	96.8
R1131	Z954	Z1139	5	96.8
R1132	Z1108	Z1142	122	197.4
R1133	Z1142	Z1143	197.4	197.4
R1134	Z1143	Z1144	197.4	141
R1135	Z1144	Z1145	4.8	141
R1136	Z1145	Z1146	64.4	141
R1137	Z1146	Z1147	21.4	141.0
R1138	Z1147	Z1148	77.3	141.0
R1139	Z1142	Z1153	5	96.8
R1140	Z1143	Z1152	5	96.8
R1141	Z1145	Z1151	5	96.8
R1142	Z1146	Z1150	5	96.8
R1143	Z1147	Z1149	5	96.8
R1144	Z1144	Z1154	494	141
R1145	Z1154	Z1155	7.5	141
R1146	Z1155	Z1156	114.7	141.0
R1147	Z1155	Z1158	5	96.8
R1148	Z1154	Z1157	5	96.8
R1149	Z957	Z958	288	197.4
R1150	Z959	Z958	122.3	197.4
R1151	Z293	Z959	453	197.4
R1152	Z959	Z1159	5	96.8
R1153	Z1163	Z1170	5	96.8
R1154	Z1163	Z1171	5	96.8
R1155	Z1162	Z1168	5	96.8
R1156	Z1162	Z1169	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1157	Z1161	Z1167	5	96.8
R1158	Z1160	Z1164	5	96.8
R1159	Z958	Z1166	5	96.8
R1162	Z1244	Z1161	6.6	141.0
R1163	Z1161	Z1243	88.2	141.0
R1164	Z1162	Z1163	347.6	141.0
R1165	Z1172	Z1174	5	96.8
R1166	Z960	Z1175	3.8	221.2
R1167	Z1175	Z1172	48.5	141.0
R1168	Z1172	Z1173	181.7	141.0
R1169	Z1175	Z1176	9.2	221.2
R1170	Z1176	Z1177	17	141.0
R1171	Z1177	Z1178	11.4	141.0
R1172	Z1178	Z1179	155	141.0
R1173	Z1179	Z1180	108.8	141.0
R1174	Z1180	Z1181	24.6	141.0
R1175	Z1180	Z1185	5	96.8
R1176	Z1179	Z1184	5	96.8
R1177	Z1178	Z1183	5	96.8
R1178	Z1177	Z1182	5	96.8
R1179	Z1176	Z1186	193.3	221.2
R1180	Z1186	Z1187	47.2	141.0
R1181	Z1187	Z1188	12.6	141.0
R1182	Z1188	Z1189	85.2	141.0
R1183	Z1189	Z1190	12.1	141.0
R1184	Z1190	Z1191	108.7	141.0
R1185	Z1190	Z1192	5	96.8
R1186	Z1189	Z1193	5	96.8
R1187	Z1188	Z1194	5	96.8
R1188	Z1187	Z1195	5	96.8
R1189	Z1186	Z1196	22.1	197.4
R1190	Z1196	Z1197	11.9	197.4
R1191	Z1197	Z1198	70.1	197.4
R1192	Z1198	Z1199	40.4	141.0
R1193	Z1199	Z1200	31.7	141.0
R1194	Z1200	Z1201	28.9	141.0
R1195	Z1198	Z1202	8.6	141.0
R1196	Z1202	Z1203	149.5	141.0
R1197	Z1203	Z1204	36.3	141.0
R1198	Z1204	Z1205	34	141.0
R1199	Z1196	Z1206	5	96.8
R1200	Z1197	Z1207	5	96.8
R1201	Z1202	Z1208	5	96.8
R1202	Z1199	Z1209	5	96.8
R1203	Z1200	Z1210	5	96.8
R1204	Z1203	Z1212	5	96.8
R1205	Z1204	Z1211	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1206	Z1036	Z1213	5	96.8
R1207	Z937	Z1214	21.07	96.8
R1208	Z116	Z1215	5	96.8
R1209	Z116	Z1216	5	96.8
R1210	Z52	Z1217	5	96.8
R1211	Z32	Z1218	5	96.8
R1212	Z33	Z1219	5	96.8
R1213	Z34	Z1220	5	96.8
R1214	Z35	Z1221	5	96.8
R1215	Z36	Z1222	5	96.8
R1216	Z37	Z1223	5	96.8
R1217	Z38	Z1224	5	96.8
R1218	Z660	Z1225	6.8	141.0
R1219	Z1225	Z1226	3.2	141.0
R1220	Z1226	Z1228	10.3	141.0
R1221	Z1226	Z1229	5	96.8
R1222	Z1225	Z1227	36.5	141.0
R1223	Z1227	Z1230	5	96.8
R1224	Z1227	Z1231	5	96.8
R1225	Z658	Z1232	2.7	141.0
R1226	Z1232	Z1234	7.4	141.0
R1227	Z1234	Z1236	10	141.0
R1228	Z1236	Z1235	31.2	141.0
R1229	Z1232	Z1233	10.3	141.0
R1230	Z1234	Z1238	5	96.8
R1231	Z1236	Z1237	5	96.8
R1	Z384	Z1239	5	96.8
R2	Z384	Z1240	5	96.8
R1232	Z383	Z1241	5	96.8
R1233	Z382	Z1242	5	96.8
R430	Z462	Z461	276.2	312.8
R1234	Z1243	Z1162	14.2	141.0
R1235	Z1243	Z1104	275.3	141.0
R1236	Z1245	Z1244	357.4	141
R1237	Z1245	Z292	5	98.6
R1238	Z1244	Z1160	164.3	141.0
R3187	Z951	Z950	400.7	197.4
R1239	Z1246	Z940	5	96.8
R1240	Z1246	Z1247	543	141
R1241	Z1247	Z942	5.5	141
R1078	Z3	Z1248	13465	600
R1081	Z1248	Z293	68.4	400
P1	S1	Z1	#N/A	#N/A Pump
P2	S1	Z1	#N/A	#N/A Pump
P3	S1	Z1	#N/A	#N/A Pump
P4	S1	Z1	#N/A	#N/A Pump
P5	S1	Z1	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm		
P6	S1	Z1	#N/A	#N/A Pump		
P7	S1	Z1	#N/A	#N/A Pump		
Energy Usage:						
Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.86	156.86	0.00
P3	100.00	75.00	0.29	156.86	156.86	0.00
P4	100.00	75.00	0.29	156.86	156.86	0.00
P5	100.00	75.00	0.29	156.86	156.86	0.00
P6	100.00	75.00	0.29	156.86	156.86	0.00
P7	100.00	75.00	0.29	156.86	156.86	0.00
Demand Charge:					0.00	0.00
Total Cost:					0.00	0.00
Node Results:						
Node ID	Demand LPS	Head m	Pressure m	Quality		
Z1	0.00	89.98	79.98	0.00		
Z2	0.00	89.60	79.60	0.00		
Z3	0.00	85.00	75.00	0.00		
Z4	0.00	89.28	79.28	0.00		
Z5	0.00	88.19	78.19	0.00		
Z6	0.00	88.09	78.09	0.00		
Z7	0.00	87.84	77.84	0.00		
Z8	0.00	87.67	77.67	0.00		
Z9	0.00	87.62	77.62	0.00		
Z10	0.00	87.22	77.22	0.00		
Z11	0.00	87.08	77.08	0.00		
Z12	0.00	86.51	76.51	0.00		
Z13	0.00	86.09	76.09	0.00		
Z14	0.00	85.89	75.89	0.00		
Z15	0.00	85.38	75.38	0.00		
Z16	0.00	85.10	75.10	0.00		
Z17	0.00	84.91	74.91	0.00		
Z18	0.00	84.62	74.62	0.00		
Z19	0.00	84.43	74.43	0.00		
Z20	0.00	83.60	73.60	0.00		
Z21	0.00	83.35	73.35	0.00		
Z22	0.00	82.88	72.88	0.00		
Z23	0.00	82.17	72.17	0.00		

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z24	0.00	81.88	71.88	0.00
Z25	0.00	81.35	71.35	0.00
Z26	0.00	79.83	69.83	0.00
Z27	0.00	79.76	69.76	0.00
Z28	0.00	77.46	67.46	0.00
Z29	0.00	84.77	74.77	0.00
Z56	0.00	89.28	79.28	0.00
Z57	0.00	88.19	78.19	0.00
Z58	0.00	88.09	78.09	0.00
Z59	0.00	87.84	77.84	0.00
Z60	0.00	87.67	77.67	0.00
Z61	0.00	87.62	77.62	0.00
Z62	0.00	87.22	77.22	0.00
Z63	0.00	87.08	77.08	0.00
Z64	0.00	86.51	76.51	0.00
Z65	0.00	86.09	76.09	0.00
Z66	0.00	85.89	75.89	0.00
Z67	0.00	85.38	75.38	0.00
Z68	0.00	85.10	75.10	0.00
Z69	0.00	84.91	74.91	0.00
Z70	0.00	84.62	74.62	0.00
Z71	0.00	84.43	74.43	0.00
Z72	0.00	84.77	74.77	0.00
Z73	0.00	83.60	73.60	0.00
Z74	0.00	83.35	73.35	0.00
Z75	0.00	82.88	72.88	0.00
Z76	0.00	82.17	72.17	0.00
Z77	0.00	81.88	71.88	0.00
Z78	0.00	81.35	71.35	0.00
Z79	0.00	79.83	69.83	0.00
Z80	0.00	79.76	69.76	0.00
Z81	0.00	77.46	67.46	0.00
Z82	0.00	84.77	74.77	0.00
Z83	0.00	84.77	74.77	0.00
Z84	0.00	84.77	74.77	0.00
Z85	0.00	84.77	74.77	0.00
Z86	0.00	84.77	74.77	0.00
Z87	0.00	84.77	74.77	0.00
Z88	0.00	84.77	74.77	0.00
Z89	0.00	84.77	74.77	0.00
Z90	0.00	84.77	74.77	0.00
Z91	0.00	84.77	74.77	0.00
Z92	0.00	84.77	74.77	0.00
Z93	0.00	84.77	74.77	0.00
Z94	0.00	84.77	74.77	0.00
Z95	0.00	84.77	74.77	0.00
Z96	0.00	84.77	74.77	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z97	0.00	84.77	74.77	0.00
Z98	0.00	84.77	74.77	0.00
Z99	0.00	84.77	74.77	0.00
Z100	0.00	84.77	74.77	0.00
Z101	0.00	84.77	74.77	0.00
Z102	0.00	84.77	74.77	0.00
Z103	0.00	84.77	74.77	0.00
Z104	0.00	84.77	74.77	0.00
Z105	0.00	84.77	74.77	0.00
Z106	0.00	84.77	74.77	0.00
Z107	0.00	84.77	74.77	0.00
Z108	0.00	84.77	74.77	0.00
Z109	0.00	84.77	74.77	0.00
Z110	0.00	84.77	74.77	0.00
Z111	0.00	84.77	74.77	0.00
Z112	0.00	84.77	74.77	0.00
Z113	0.00	84.77	74.77	0.00
Z114	0.00	84.77	74.77	0.00
Z115	0.00	84.77	74.77	0.00
Z116	0.00	77.05	67.05	0.00
Z117	0.00	75.21	65.21	0.00
Z118	0.00	74.37	64.37	0.00
Z119	0.00	73.68	63.68	0.00
Z120	0.00	72.32	62.32	0.00
Z121	0.00	71.65	61.65	0.00
Z122	0.00	75.12	65.12	0.00
Z123	0.00	74.95	64.95	0.00
Z124	0.00	74.88	64.88	0.00
Z125	2.72	75.09	65.09	0.00
Z126	2.72	74.93	64.93	0.00
Z127	0.00	84.77	74.77	0.00
Z128	2.72	74.88	64.88	0.00
Z129	0.00	74.88	64.88	0.00
Z130	2.72	74.87	64.87	0.00
Z30	0.00	69.49	59.49	0.00
Z31	0.00	69.28	59.28	0.00
Z32	0.00	69.24	59.24	0.00
Z33	0.00	68.30	58.30	0.00
Z34	0.00	67.57	57.57	0.00
Z35	0.00	66.94	56.94	0.00
Z36	0.00	66.85	56.85	0.00
Z37	0.00	66.73	56.73	0.00
Z38	0.00	66.70	56.70	0.00
Z39	0.00	66.41	56.41	0.00
Z40	0.00	66.31	56.31	0.00
Z42	2.72	69.48	59.48	0.00
Z43	0.00	69.23	59.23	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z44	2.72	69.22	59.22	0.00
Z45	0.00	69.00	59.00	0.00
Z46	2.72	68.99	58.99	0.00
Z48	2.72	68.94	58.94	0.00
Z49	2.72	74.36	64.36	0.00
Z50	2.72	73.68	63.68	0.00
Z51	2.72	72.31	62.31	0.00
Z52	0.00	71.56	61.56	0.00
Z53	0.00	71.53	61.53	0.00
Z54	2.72	71.49	61.49	0.00
Z55	2.72	71.52	61.52	0.00
Z131	2.72	71.52	61.52	0.00
Z132	0.00	82.37	72.37	0.00
Z133	0.00	82.37	72.37	0.00
Z134	0.00	82.37	72.37	0.00
Z135	0.00	82.37	72.37	0.00
Z136	0.00	82.37	72.37	0.00
Z137	0.00	82.37	72.37	0.00
Z138	0.00	82.37	72.37	0.00
Z139	0.00	82.37	72.37	0.00
Z140	0.00	82.37	72.37	0.00
Z141	0.00	82.37	72.37	0.00
Z142	0.00	82.37	72.37	0.00
Z143	0.00	79.38	69.38	0.00
Z144	2.72	72.76	62.76	0.00
Z145	0.00	72.81	62.81	0.00
Z146	0.00	72.79	62.79	0.00
Z147	0.00	73.27	63.27	0.00
Z148	0.00	72.73	62.73	0.00
Z149	0.00	71.34	61.34	0.00
Z150	0.00	70.64	60.64	0.00
Z151	0.00	70.32	60.32	0.00
Z152	0.00	70.27	60.27	0.00
Z153	0.00	70.14	60.14	0.00
Z154	0.00	69.95	59.95	0.00
Z155	0.00	69.88	59.88	0.00
Z156	2.72	69.87	59.87	0.00
Z157	0.00	82.37	72.37	0.00
Z158	0.00	82.37	72.37	0.00
Z159	0.00	82.37	72.37	0.00
Z160	0.00	82.37	72.37	0.00
Z161	0.00	82.37	72.37	0.00
Z162	0.00	82.37	72.37	0.00
Z163	0.00	82.37	72.37	0.00
Z164	0.00	79.38	69.38	0.00
Z165	0.00	75.59	65.59	0.00
Z166	2.72	72.78	62.78	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z167	2.72	72.72	62.72	0.00
Z168	2.72	71.33	61.33	0.00
Z169	2.72	70.63	60.63	0.00
Z170	2.72	70.26	60.26	0.00
Z171	2.72	70.14	60.14	0.00
Z172	2.72	70.14	60.14	0.00
Z173	2.72	69.94	59.94	0.00
Z174	2.72	69.87	59.87	0.00
Z175	0.00	67.69	57.69	0.00
Z176	0.00	65.15	55.15	0.00
Z177	0.00	64.04	54.04	0.00
Z178	0.00	63.83	53.83	0.00
Z179	0.00	62.89	52.89	0.00
Z180	0.00	62.60	52.60	0.00
Z181	0.00	62.40	52.40	0.00
Z182	0.00	62.35	52.35	0.00
Z183	0.00	62.12	52.12	0.00
Z184	0.00	62.08	52.08	0.00
Z185	0.00	61.99	51.99	0.00
Z186	2.72	61.96	51.96	0.00
Z187	0.00	60.49	50.49	0.00
Z188	0.00	60.03	50.03	0.00
Z189	0.00	60.00	50.00	0.00
Z190	2.72	59.99	49.99	0.00
Z191	0.00	59.97	49.97	0.00
Z192	0.00	59.89	49.89	0.00
Z193	2.72	59.88	49.88	0.00
Z194	2.72	63.80	53.80	0.00
Z195	2.72	62.88	52.88	0.00
Z196	2.72	62.59	52.59	0.00
Z197	2.72	62.39	52.39	0.00
Z198	2.72	62.35	52.35	0.00
Z199	2.72	62.07	52.07	0.00
Z200	2.72	61.98	51.98	0.00
Z201	2.72	60.48	50.48	0.00
Z202	2.72	59.99	49.99	0.00
Z203	2.72	59.96	49.96	0.00
Z204	2.72	59.88	49.88	0.00
Z205	0.00	62.78	52.78	0.00
Z206	0.00	61.51	51.51	0.00
Z207	0.00	60.70	50.70	0.00
Z208	0.00	58.60	48.60	0.00
Z209	0.00	58.36	48.36	0.00
Z210	0.00	60.61	50.61	0.00
Z211	0.00	60.58	50.58	0.00
Z212	0.00	60.53	50.53	0.00
Z213	2.72	60.53	50.53	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z214	0.00	60.61	50.61	0.00
Z215	2.72	60.60	50.60	0.00
Z216	2.72	60.52	50.52	0.00
Z217	2.72	60.57	50.57	0.00
Z218	2.72	60.57	50.57	0.00
Z219	0.00	58.30	48.30	0.00
Z220	0.00	57.97	47.97	0.00
Z221	0.00	57.83	47.83	0.00
Z222	0.00	57.81	47.81	0.00
Z223	0.00	57.53	47.53	0.00
Z224	0.00	57.13	47.13	0.00
Z225	0.00	57.09	47.09	0.00
Z226	0.00	56.95	46.95	0.00
Z227	0.00	56.77	46.77	0.00
Z228	0.00	56.30	46.30	0.00
Z229	0.00	56.21	46.21	0.00
Z230	2.72	56.19	46.19	0.00
Z231	0.00	56.54	46.54	0.00
Z232	0.00	56.22	46.22	0.00
Z233	2.72	56.20	46.20	0.00
Z234	0.00	56.76	46.76	0.00
Z235	0.00	56.73	46.73	0.00
Z236	2.72	56.71	46.71	0.00
Z41	0.00	79.38	69.38	0.00
Z47	0.00	79.38	69.38	0.00
Z237	0.00	79.38	69.38	0.00
Z238	0.00	79.38	69.38	0.00
Z239	0.00	79.38	69.38	0.00
Z240	0.00	79.38	69.38	0.00
Z241	0.00	79.38	69.38	0.00
Z242	0.00	79.38	69.38	0.00
Z243	0.00	79.38	69.38	0.00
Z244	0.00	79.38	69.38	0.00
Z245	0.00	79.38	69.38	0.00
Z246	0.00	79.38	69.38	0.00
Z247	0.00	79.38	69.38	0.00
Z248	0.00	79.38	69.38	0.00
Z249	0.00	79.38	69.38	0.00
Z250	0.00	79.38	69.38	0.00
Z251	0.00	79.38	69.38	0.00
Z252	0.00	79.38	69.38	0.00
Z253	0.00	79.38	69.38	0.00
Z254	0.00	79.38	69.38	0.00
Z255	0.00	79.38	69.38	0.00
Z256	0.00	79.38	69.38	0.00
Z257	0.00	79.38	69.38	0.00
Z258	0.00	79.38	69.38	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z259	0.00	79.38	69.38	0.00
Z260	0.00	79.38	69.38	0.00
Z261	0.00	79.38	69.38	0.00
Z262	0.00	79.38	69.38	0.00
Z263	0.00	79.38	69.38	0.00
Z264	0.00	79.38	69.38	0.00
Z265	0.00	79.38	69.38	0.00
Z266	0.00	79.38	69.38	0.00
Z267	0.00	79.38	69.38	0.00
Z268	0.00	79.38	69.38	0.00
Z269	0.00	79.38	69.38	0.00
Z270	0.00	79.38	69.38	0.00
Z271	0.00	79.38	69.38	0.00
Z272	0.00	79.38	69.38	0.00
Z273	0.00	79.38	69.38	0.00
Z274	0.00	79.38	69.38	0.00
Z275	0.00	75.59	65.59	0.00
Z276	0.00	75.59	65.59	0.00
Z277	0.00	75.59	65.59	0.00
Z278	0.00	75.59	65.59	0.00
Z279	0.00	75.59	65.59	0.00
Z280	0.00	75.59	65.59	0.00
Z281	0.00	75.59	65.59	0.00
Z282	0.00	75.59	65.59	0.00
Z283	0.00	77.52	67.52	0.00
Z284	0.00	77.52	67.52	0.00
Z285	0.00	77.52	67.52	0.00
Z286	0.00	77.52	67.52	0.00
Z287	0.00	77.52	67.52	0.00
Z288	0.00	77.52	67.52	0.00
Z289	0.00	77.52	67.52	0.00
Z290	0.00	77.52	67.52	0.00
Z291	0.00	77.52	67.52	0.00
Z292	0.00	77.52	67.52	0.00
Z293	0.00	80.32	70.32	0.00
Z294	0.00	73.96	63.96	0.00
Z295	0.00	75.59	65.59	0.00
Z296	0.00	75.59	65.59	0.00
Z297	0.00	75.59	65.59	0.00
Z298	0.00	75.59	65.59	0.00
Z299	0.00	75.59	65.59	0.00
Z300	0.00	75.59	65.59	0.00
Z301	0.00	75.59	65.59	0.00
Z302	0.00	77.52	67.52	0.00
Z303	0.00	77.52	67.52	0.00
Z304	0.00	77.52	67.52	0.00
Z305	0.00	77.52	67.52	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z306	0.00	77.52	67.52	0.00
Z307	0.00	73.96	63.96	0.00
Z308	0.00	73.96	63.96	0.00
Z309	0.00	73.96	63.96	0.00
Z310	0.00	73.96	63.96	0.00
Z311	0.00	73.96	63.96	0.00
Z312	0.00	73.96	63.96	0.00
Z313	0.00	73.96	63.96	0.00
Z314	0.00	73.96	63.96	0.00
Z315	0.00	73.96	63.96	0.00
Z316	0.00	73.96	63.96	0.00
Z317	0.00	73.96	63.96	0.00
Z318	0.00	73.96	63.96	0.00
Z319	0.00	73.96	63.96	0.00
Z320	0.00	73.96	63.96	0.00
Z321	0.00	73.96	63.96	0.00
Z322	0.00	68.32	58.32	0.00
Z323	0.00	73.96	63.96	0.00
Z324	0.00	73.96	63.96	0.00
Z325	0.00	73.96	63.96	0.00
Z326	0.00	73.96	63.96	0.00
Z327	0.00	73.96	63.96	0.00
Z328	0.00	73.96	63.96	0.00
Z329	0.00	73.96	63.96	0.00
Z330	0.00	73.96	63.96	0.00
Z331	0.00	73.96	63.96	0.00
Z332	0.00	73.96	63.96	0.00
Z333	0.00	73.96	63.96	0.00
Z334	0.00	73.96	63.96	0.00
Z335	0.00	73.96	63.96	0.00
Z336	0.00	73.96	63.96	0.00
Z337	0.00	73.96	63.96	0.00
Z338	0.00	73.96	63.96	0.00
Z339	0.00	73.96	63.96	0.00
Z340	0.00	73.96	63.96	0.00
Z341	0.00	73.96	63.96	0.00
Z342	0.00	73.96	63.96	0.00
Z343	0.00	73.96	63.96	0.00
Z344	0.00	73.96	63.96	0.00
Z345	0.00	73.96	63.96	0.00
Z346	0.00	73.96	63.96	0.00
Z347	0.00	73.96	63.96	0.00
Z348	0.00	73.96	63.96	0.00
Z349	0.00	73.96	63.96	0.00
Z350	0.00	68.32	58.32	0.00
Z351	0.00	68.32	58.32	0.00
Z352	0.00	68.32	58.32	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z353	0.00	68.32	58.32	0.00
Z354	0.00	68.32	58.32	0.00
Z355	0.00	68.32	58.32	0.00
Z356	0.00	68.32	58.32	0.00
Z357	0.00	68.32	58.32	0.00
Z358	0.00	68.32	58.32	0.00
Z359	0.00	68.32	58.32	0.00
Z360	0.00	68.32	58.32	0.00
Z361	0.00	68.32	58.32	0.00
Z362	0.00	68.32	58.32	0.00
Z363	0.00	68.32	58.32	0.00
Z364	0.00	64.12	54.12	0.00
Z365	0.00	62.02	52.02	0.00
Z366	0.00	64.06	54.06	0.00
Z367	0.00	63.78	53.78	0.00
Z368	2.72	63.70	53.70	0.00
Z369	0.00	63.70	53.70	0.00
Z370	0.00	60.56	50.56	0.00
Z371	0.00	60.49	50.49	0.00
Z372	0.00	60.15	50.15	0.00
Z373	0.00	60.03	50.03	0.00
Z374	2.72	60.01	50.01	0.00
Z375	0.00	58.92	48.92	0.00
Z376	0.00	58.89	48.89	0.00
Z377	0.00	56.64	46.64	0.00
Z378	0.00	56.53	46.53	0.00
Z379	0.00	56.35	46.35	0.00
Z380	0.00	56.21	46.21	0.00
Z381	2.72	56.18	46.18	0.00
Z382	0.00	56.38	46.38	0.00
Z383	0.00	56.35	46.35	0.00
Z384	0.00	56.03	46.03	0.00
Z385	2.72	55.98	45.98	0.00
Z386	2.72	63.77	53.77	0.00
Z387	2.72	63.77	53.77	0.00
Z388	2.72	64.05	54.05	0.00
Z389	0.00	63.32	53.32	0.00
Z390	2.72	63.28	53.28	0.00
Z391	2.72	63.70	53.70	0.00
Z392	2.72	60.48	50.48	0.00
Z393	2.72	60.14	50.14	0.00
Z394	2.72	60.02	50.02	0.00
Z395	2.72	58.92	48.92	0.00
Z396	2.72	58.88	48.88	0.00
Z397	2.72	56.63	46.63	0.00
Z398	2.72	56.34	46.34	0.00
Z399	2.72	56.20	46.20	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z400	0.00	61.46	51.46	0.00
Z401	0.00	61.50	51.50	0.00
Z402	0.00	60.73	50.73	0.00
Z403	0.00	60.42	50.42	0.00
Z404	0.00	59.77	49.77	0.00
Z405	0.00	59.35	49.35	0.00
Z406	2.72	59.34	49.34	0.00
Z407	2.72	61.45	51.45	0.00
Z408	2.72	60.73	50.73	0.00
Z409	2.72	60.42	50.42	0.00
Z410	2.72	59.76	49.76	0.00
Z411	2.72	59.35	49.35	0.00
Z412	0.00	61.27	51.27	0.00
Z413	0.00	60.96	50.96	0.00
Z414	0.00	60.86	50.86	0.00
Z415	2.72	60.84	50.84	0.00
Z416	2.72	61.26	51.26	0.00
Z417	2.72	61.26	51.26	0.00
Z418	2.72	60.95	50.95	0.00
Z419	2.72	60.85	50.85	0.00
Z420	2.72	60.95	50.95	0.00
Z421	0.00	57.80	47.80	0.00
Z422	0.00	57.78	47.78	0.00
Z423	0.00	57.63	47.63	0.00
Z424	2.72	57.60	47.60	0.00
Z425	2.72	57.62	47.62	0.00
Z426	2.72	57.77	47.77	0.00
Z427	2.72	57.79	47.79	0.00
Z428	2.72	56.72	46.72	0.00
Z429	2.72	56.75	46.75	0.00
Z430	2.72	57.96	47.96	0.00
Z431	2.72	57.81	47.81	0.00
Z432	2.72	57.52	47.52	0.00
Z433	2.72	57.12	47.12	0.00
Z434	2.72	57.08	47.08	0.00
Z435	2.72	56.94	46.94	0.00
Z436	2.72	56.29	46.29	0.00
Z437	2.72	56.20	46.20	0.00
Z438	2.72	56.53	46.53	0.00
Z439	2.72	56.21	46.21	0.00
Z440	0.00	58.07	48.07	0.00
Z441	2.72	58.06	48.06	0.00
Z442	0.00	57.18	47.18	0.00
Z443	2.72	57.17	47.17	0.00
Z444	0.00	57.15	47.15	0.00
Z445	2.72	57.15	47.15	0.00
Z446	0.00	57.11	47.11	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z447	2.72	57.10	47.10	0.00
Z448	0.00	56.67	46.67	0.00
Z449	2.72	56.66	46.66	0.00
Z450	2.72	56.66	46.66	0.00
Z451	0.00	56.41	46.41	0.00
Z452	2.72	56.40	46.40	0.00
Z453	0.00	56.34	46.34	0.00
Z454	2.72	56.33	46.33	0.00
Z455	0.00	56.31	46.31	0.00
Z456	2.72	56.30	46.30	0.00
Z457	0.00	56.31	46.31	0.00
Z458	2.72	56.30	46.30	0.00
Z459	0.00	57.07	47.07	0.00
Z460	2.72	57.06	47.06	0.00
Z461	0.00	57.08	47.08	0.00
Z462	0.00	57.29	47.29	0.00
Z463	0.00	57.34	47.34	0.00
Z464	2.72	57.28	47.28	0.00
Z465	2.72	57.28	47.28	0.00
Z466	0.00	57.57	47.57	0.00
Z467	0.00	57.84	47.84	0.00
Z468	0.00	57.75	47.75	0.00
Z469	0.00	57.71	47.71	0.00
Z470	2.72	57.66	47.66	0.00
Z471	2.72	57.71	47.71	0.00
Z472	0.00	57.56	47.56	0.00
Z473	2.72	57.55	47.55	0.00
Z474	0.00	57.50	47.50	0.00
Z475	2.72	57.49	47.49	0.00
Z476	2.72	57.49	47.49	0.00
Z477	0.00	62.58	52.58	0.00
Z478	2.72	62.57	52.57	0.00
Z479	2.72	62.49	52.49	0.00
Z480	2.72	62.74	52.74	0.00
Z481	0.00	62.75	52.75	0.00
Z482	0.00	57.04	47.04	0.00
Z483	0.00	57.00	47.00	0.00
Z484	0.00	56.93	46.93	0.00
Z485	0.00	56.89	46.89	0.00
Z486	0.00	56.63	46.63	0.00
Z487	0.00	56.28	46.28	0.00
Z488	0.00	56.26	46.26	0.00
Z489	0.00	55.33	45.33	0.00
Z490	0.00	55.33	45.33	0.00
Z491	0.00	55.17	45.17	0.00
Z492	2.72	55.17	45.17	0.00
Z493	0.00	55.21	45.21	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z494	0.00	55.03	45.03	0.00
Z495	0.00	55.01	45.01	0.00
Z496	2.72	55.00	45.00	0.00
Z497	2.72	57.03	47.03	0.00
Z498	2.72	56.99	46.99	0.00
Z499	2.72	56.92	46.92	0.00
Z500	2.72	56.88	46.88	0.00
Z501	2.72	56.62	46.62	0.00
Z502	2.72	56.27	46.27	0.00
Z503	2.72	55.16	45.16	0.00
Z504	2.72	55.32	45.32	0.00
Z505	2.72	55.00	45.00	0.00
Z506	2.72	55.02	45.02	0.00
Z507	2.72	55.20	45.20	0.00
Z508	2.72	55.20	45.20	0.00
Z509	0.00	57.50	47.50	0.00
Z510	0.00	57.49	47.49	0.00
Z511	0.00	57.48	47.48	0.00
Z512	0.00	57.48	47.48	0.00
Z513	0.00	57.47	47.47	0.00
Z514	0.00	58.85	48.85	0.00
Z515	0.00	59.61	49.61	0.00
Z516	0.00	60.69	50.69	0.00
Z518	0.00	59.60	49.60	0.00
Z519	0.00	59.29	49.29	0.00
Z520	2.72	59.25	49.25	0.00
Z521	0.00	58.52	48.52	0.00
Z522	0.00	57.90	47.90	0.00
Z523	0.00	57.89	47.89	0.00
Z524	2.72	57.85	47.85	0.00
Z525	0.00	57.55	47.55	0.00
Z526	2.72	57.54	47.54	0.00
Z527	2.72	57.49	47.49	0.00
Z528	2.72	57.48	47.48	0.00
Z529	2.72	57.47	47.47	0.00
Z530	2.72	57.47	47.47	0.00
Z531	0.00	57.35	47.35	0.00
Z532	0.00	56.94	46.94	0.00
Z533	2.72	56.93	46.93	0.00
Z534	2.72	56.93	46.93	0.00
Z535	2.72	56.93	46.93	0.00
Z536	0.00	57.33	47.33	0.00
Z537	2.72	57.32	47.32	0.00
Z538	2.72	57.27	47.27	0.00
Z539	0.00	57.28	47.28	0.00
Z540	0.00	57.09	47.09	0.00
Z541	0.00	57.04	47.04	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z542	2.72	57.03	47.03	0.00
Z543	0.00	57.01	47.01	0.00
Z544	2.72	57.00	47.00	0.00
Z545	2.72	57.00	47.00	0.00
Z546	0.00	57.01	47.01	0.00
Z547	0.00	56.73	46.73	0.00
Z548	2.72	56.73	46.73	0.00
Z549	0.00	56.24	46.24	0.00
Z550	2.72	56.24	46.24	0.00
Z551	0.00	56.20	46.20	0.00
Z552	2.72	56.19	46.19	0.00
Z553	2.72	56.19	46.19	0.00
Z554	0.00	58.82	48.82	0.00
Z555	2.72	58.81	48.81	0.00
Z556	0.00	58.70	48.70	0.00
Z557	2.72	58.70	48.70	0.00
Z558	2.72	58.69	48.69	0.00
Z559	2.72	59.60	49.60	0.00
Z560	2.72	60.68	50.68	0.00
Z561	0.00	63.45	53.45	0.00
Z562	0.00	63.00	53.00	0.00
Z563	2.72	62.98	52.98	0.00
Z564	2.72	62.96	52.96	0.00
Z565	0.00	62.98	52.98	0.00
Z566	2.72	62.85	52.85	0.00
Z567	0.00	61.47	51.47	0.00
Z568	2.72	61.46	51.46	0.00
Z569	0.00	61.13	51.13	0.00
Z570	2.72	61.12	51.12	0.00
Z571	2.72	59.59	49.59	0.00
Z572	2.72	58.51	48.51	0.00
Z573	2.72	57.89	47.89	0.00
Z574	2.72	57.88	47.88	0.00
Z575	0.00	62.85	52.85	0.00
Z576	0.00	56.93	46.93	0.00
Z577	0.00	57.18	47.18	0.00
Z578	0.00	56.86	46.86	0.00
Z579	0.00	56.46	46.46	0.00
Z580	0.00	56.12	46.12	0.00
Z581	2.72	56.08	46.08	0.00
Z582	2.72	56.45	46.45	0.00
Z583	0.00	56.82	46.82	0.00
Z584	2.72	56.81	46.81	0.00
Z585	0.00	56.81	46.81	0.00
Z586	2.72	56.80	46.80	0.00
Z587	2.72	56.80	46.80	0.00
Z588	0.00	55.94	45.94	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z589	2.72	55.93	45.93	0.00
Z590	0.00	55.92	45.92	0.00
Z591	2.72	55.91	45.91	0.00
Z592	2.72	55.91	45.91	0.00
Z593	0.00	57.11	47.11	0.00
Z594	0.00	57.05	47.05	0.00
Z595	0.00	57.10	47.10	0.00
Z596	0.00	56.61	46.61	0.00
Z597	2.72	57.04	47.04	0.00
Z598	2.72	56.61	46.61	0.00
Z599	0.00	56.55	46.55	0.00
Z600	2.72	56.55	46.55	0.00
Z601	0.00	56.01	46.01	0.00
Z602	0.00	55.95	45.95	0.00
Z603	2.72	55.95	45.95	0.00
Z604	0.00	56.01	46.01	0.00
Z605	0.00	55.98	45.98	0.00
Z606	2.72	55.97	45.97	0.00
Z607	2.72	55.97	45.97	0.00
Z608	0.00	55.50	45.50	0.00
Z609	0.00	55.43	45.43	0.00
Z610	2.72	55.42	45.42	0.00
Z611	0.00	55.43	45.43	0.00
Z612	2.72	55.42	45.42	0.00
Z613	0.00	55.27	45.27	0.00
Z614	2.72	55.27	45.27	0.00
Z615	0.00	55.24	45.24	0.00
Z616	2.72	55.23	45.23	0.00
Z617	2.72	55.23	45.23	0.00
Z618	2.72	55.24	45.24	0.00
Z619	0.00	55.33	45.33	0.00
Z620	0.00	55.32	45.32	0.00
Z621	2.72	55.31	45.31	0.00
Z622	0.00	55.28	45.28	0.00
Z623	2.72	55.27	45.27	0.00
Z624	0.00	55.22	45.22	0.00
Z625	2.72	55.21	45.21	0.00
Z626	0.00	55.17	45.17	0.00
Z627	2.72	55.17	45.17	0.00
Z628	2.72	55.16	45.16	0.00
Z629	2.72	55.16	45.16	0.00
Z630	2.72	55.11	45.11	0.00
Z631	0.00	55.20	45.20	0.00
Z632	2.72	55.19	45.19	0.00
Z633	0.00	55.24	45.24	0.00
Z634	2.72	55.24	45.24	0.00
Z517	0.00	56.03	46.03	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z635	0.00	56.14	46.14	0.00
Z636	0.00	56.50	46.50	0.00
Z637	0.00	56.90	46.90	0.00
Z638	2.72	56.87	46.87	0.00
Z639	2.72	56.88	46.88	0.00
Z640	2.72	56.02	46.02	0.00
Z641	0.00	56.04	46.04	0.00
Z642	0.00	56.02	46.02	0.00
Z643	0.00	55.77	45.77	0.00
Z644	2.72	55.76	45.76	0.00
Z645	2.72	55.76	45.76	0.00
Z646	2.72	55.76	45.76	0.00
Z647	2.72	55.97	45.97	0.00
Z648	2.72	56.01	46.01	0.00
Z649	0.00	56.88	46.88	0.00
Z650	0.00	56.05	46.05	0.00
Z651	0.00	56.02	46.02	0.00
Z652	2.72	56.04	46.04	0.00
Z653	2.72	56.02	46.02	0.00
Z654	2.72	56.02	46.02	0.00
Z655	2.72	55.98	45.98	0.00
Z656	0.00	57.12	47.12	0.00
Z657	0.00	57.25	47.25	0.00
Z658	0.00	57.34	47.34	0.00
Z659	0.00	57.48	47.48	0.00
Z660	0.00	57.95	47.95	0.00
Z661	0.00	58.36	48.36	0.00
Z662	2.72	60.16	50.16	0.00
Z663	0.00	61.03	51.03	0.00
Z664	0.00	63.18	53.18	0.00
Z665	0.00	65.15	55.15	0.00
Z666	0.00	66.36	56.36	0.00
Z667	2.72	66.35	56.35	0.00
Z668	2.72	66.35	56.35	0.00
Z669	0.00	63.70	53.70	0.00
Z670	0.00	62.56	52.56	0.00
Z671	0.00	58.83	48.83	0.00
Z672	0.00	58.70	48.70	0.00
Z673	0.00	56.98	46.98	0.00
Z674	0.00	58.66	48.66	0.00
Z675	2.72	58.64	48.64	0.00
Z676	2.72	58.65	48.65	0.00
Z677	2.72	58.69	48.69	0.00
Z678	2.72	62.55	52.55	0.00
Z679	2.72	63.69	53.69	0.00
Z680	2.72	56.98	46.98	0.00
Z681	0.00	56.47	46.47	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z682	0.00	56.19	46.19	0.00
Z683	0.00	56.07	46.07	0.00
Z684	0.00	56.05	46.05	0.00
Z685	0.00	55.98	45.98	0.00
Z686	2.72	55.95	45.95	0.00
Z687	2.72	56.46	46.46	0.00
Z688	2.72	56.19	46.19	0.00
Z689	2.72	56.07	46.07	0.00
Z690	2.72	56.04	46.04	0.00
Z691	2.72	55.97	45.97	0.00
Z692	0.00	63.04	53.04	0.00
Z693	0.00	63.02	53.02	0.00
Z694	2.72	63.01	53.01	0.00
Z695	0.00	62.94	52.94	0.00
Z696	2.72	62.93	52.93	0.00
Z697	2.72	62.93	52.93	0.00
Z698	0.00	63.04	53.04	0.00
Z699	2.72	63.03	53.03	0.00
Z700	2.72	62.87	52.87	0.00
Z701	2.72	62.87	52.87	0.00
Z702	0.00	62.88	52.88	0.00
Z703	0.00	60.82	50.82	0.00
Z704	0.00	59.96	49.96	0.00
Z705	0.00	58.81	48.81	0.00
Z706	0.00	58.46	48.46	0.00
Z707	0.00	58.17	48.17	0.00
Z708	2.72	58.16	48.16	0.00
Z709	0.00	58.22	48.22	0.00
Z710	2.72	58.15	48.15	0.00
Z711	2.72	60.81	50.81	0.00
Z712	2.72	59.95	49.95	0.00
Z713	2.72	58.80	48.80	0.00
Z714	2.72	58.45	48.45	0.00
Z715	2.72	58.16	48.16	0.00
Z716	0.00	59.50	49.50	0.00
Z717	0.00	57.32	47.32	0.00
Z718	0.00	57.13	47.13	0.00
Z719	2.72	57.11	47.11	0.00
Z720	0.00	57.01	47.01	0.00
Z721	0.00	56.99	46.99	0.00
Z722	0.00	56.94	46.94	0.00
Z723	2.72	56.91	46.91	0.00
Z724	2.72	56.93	46.93	0.00
Z725	2.72	56.98	46.98	0.00
Z726	2.72	57.00	47.00	0.00
Z727	2.72	57.12	47.12	0.00
Z728	0.00	57.17	47.17	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z729	0.00	57.14	47.14	0.00
Z730	2.72	57.13	47.13	0.00
Z731	2.72	57.07	47.07	0.00
Z732	0.00	56.75	46.75	0.00
Z733	2.72	56.74	46.74	0.00
Z734	0.00	56.63	46.63	0.00
Z735	2.72	56.62	46.62	0.00
Z736	0.00	56.36	46.36	0.00
Z737	2.72	56.36	46.36	0.00
Z738	0.00	56.21	46.21	0.00
Z739	2.72	56.20	46.20	0.00
Z740	0.00	55.64	45.64	0.00
Z741	2.72	55.63	45.63	0.00
Z742	0.00	55.61	45.61	0.00
Z743	0.00	55.50	45.50	0.00
Z744	0.00	55.49	45.49	0.00
Z745	2.72	55.49	45.49	0.00
Z746	2.72	55.48	45.48	0.00
Z747	2.72	55.36	45.36	0.00
Z748	0.00	56.84	46.84	0.00
Z749	0.00	56.44	46.44	0.00
Z750	0.00	56.15	46.15	0.00
Z751	0.00	55.94	45.94	0.00
Z752	0.00	55.82	45.82	0.00
Z753	0.00	55.81	45.81	0.00
Z754	0.00	55.81	45.81	0.00
Z755	2.72	55.78	45.78	0.00
Z756	2.72	55.77	45.77	0.00
Z757	2.72	55.80	45.80	0.00
Z758	2.72	55.81	45.81	0.00
Z759	2.72	56.43	46.43	0.00
Z760	2.72	55.94	45.94	0.00
Z761	0.00	55.58	45.58	0.00
Z762	0.00	55.54	45.54	0.00
Z763	0.00	55.53	45.53	0.00
Z764	2.72	55.52	45.52	0.00
Z765	2.72	55.52	45.52	0.00
Z766	2.72	55.54	45.54	0.00
Z767	2.72	55.58	45.58	0.00
Z768	0.00	55.93	45.93	0.00
Z769	0.00	55.91	45.91	0.00
Z770	0.00	55.82	45.82	0.00
Z771	0.00	55.74	45.74	0.00
Z772	0.00	55.47	45.47	0.00
Z773	2.72	55.41	45.41	0.00
Z774	0.00	55.40	45.40	0.00
Z775	2.72	55.40	45.40	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z776	2.72	55.39	45.39	0.00
Z777	2.72	55.73	45.73	0.00
Z778	2.72	55.81	45.81	0.00
Z779	2.72	55.90	45.90	0.00
Z780	2.72	55.92	45.92	0.00
Z781	0.00	57.24	47.24	0.00
Z782	0.00	56.97	46.97	0.00
Z783	0.00	56.86	46.86	0.00
Z784	0.00	56.84	46.84	0.00
Z785	0.00	57.04	47.04	0.00
Z786	0.00	56.78	46.78	0.00
Z787	0.00	56.77	46.77	0.00
Z788	0.00	56.77	46.77	0.00
Z789	0.00	56.77	46.77	0.00
Z790	0.00	56.77	46.77	0.00
Z791	0.00	56.96	46.96	0.00
Z792	0.00	57.06	47.06	0.00
Z793	0.00	57.33	47.33	0.00
Z794	0.00	57.47	47.47	0.00
Z795	0.00	57.54	47.54	0.00
Z796	2.72	58.19	48.19	0.00
Z797	2.72	57.46	47.46	0.00
Z798	2.72	57.32	47.32	0.00
Z799	2.72	57.05	47.05	0.00
Z800	2.72	56.95	46.95	0.00
Z801	2.72	56.76	46.76	0.00
Z802	2.72	56.76	46.76	0.00
Z803	2.72	56.77	46.77	0.00
Z804	2.72	56.77	46.77	0.00
Z805	2.72	56.83	46.83	0.00
Z806	2.72	56.85	46.85	0.00
Z807	2.72	56.96	46.96	0.00
Z808	2.72	57.24	47.24	0.00
Z809	0.00	58.22	48.22	0.00
Z810	0.00	56.71	46.71	0.00
Z811	0.00	56.51	46.51	0.00
Z812	0.00	56.39	46.39	0.00
Z813	0.00	55.89	45.89	0.00
Z814	0.00	55.60	45.60	0.00
Z815	0.00	55.43	45.43	0.00
Z816	0.00	55.32	45.32	0.00
Z817	2.72	55.30	45.30	0.00
Z818	2.72	55.28	45.28	0.00
Z819	2.72	56.70	46.70	0.00
Z820	2.72	56.50	46.50	0.00
Z821	2.72	56.38	46.38	0.00
Z822	2.72	55.88	45.88	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z823	2.72	55.59	45.59	0.00
Z824	2.72	55.42	45.42	0.00
Z825	0.00	56.88	46.88	0.00
Z826	0.00	56.67	46.67	0.00
Z827	0.00	56.64	46.64	0.00
Z828	0.00	56.47	46.47	0.00
Z829	0.00	56.24	46.24	0.00
Z830	0.00	56.03	46.03	0.00
Z831	0.00	56.01	46.01	0.00
Z832	0.00	55.57	45.57	0.00
Z833	0.00	55.57	45.57	0.00
Z834	0.00	55.52	45.52	0.00
Z835	0.00	55.20	45.20	0.00
Z836	0.00	55.17	45.17	0.00
Z837	2.72	55.15	45.15	0.00
Z838	2.72	56.87	46.87	0.00
Z839	2.72	56.66	46.66	0.00
Z840	2.72	56.63	46.63	0.00
Z841	2.72	56.46	46.46	0.00
Z842	2.72	56.24	46.24	0.00
Z843	2.72	56.00	46.00	0.00
Z844	2.72	56.00	46.00	0.00
Z845	2.72	55.56	45.56	0.00
Z846	2.72	55.54	45.54	0.00
Z847	2.72	55.51	45.51	0.00
Z848	2.72	55.19	45.19	0.00
Z849	2.72	55.16	45.16	0.00
Z850	0.00	56.87	46.87	0.00
Z851	0.00	56.84	46.84	0.00
Z852	0.00	56.51	46.51	0.00
Z853	0.00	56.42	46.42	0.00
Z854	0.00	56.15	46.15	0.00
Z855	0.00	55.99	45.99	0.00
Z856	0.00	55.60	45.60	0.00
Z857	0.00	55.40	45.40	0.00
Z858	0.00	55.25	45.25	0.00
Z859	0.00	55.19	45.19	0.00
Z860	0.00	55.51	45.51	0.00
Z861	0.00	55.40	45.40	0.00
Z862	2.72	56.86	46.86	0.00
Z863	2.72	56.83	46.83	0.00
Z864	2.72	56.50	46.50	0.00
Z865	2.72	56.42	46.42	0.00
Z866	2.72	55.98	45.98	0.00
Z867	2.72	55.59	45.59	0.00
Z868	2.72	55.39	45.39	0.00
Z869	2.72	55.24	45.24	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z870	2.72	55.18	45.18	0.00
Z871	2.72	55.16	45.16	0.00
Z872	2.72	55.50	45.50	0.00
Z873	2.72	55.39	45.39	0.00
Z874	2.72	55.34	45.34	0.00
Z875	0.00	84.52	74.52	0.00
Z876	0.00	84.30	74.30	0.00
Z877	0.00	84.30	74.30	0.00
Z878	0.00	84.30	74.30	0.00
Z879	0.00	84.30	74.30	0.00
Z880	0.00	84.30	74.30	0.00
Z881	0.00	84.30	74.30	0.00
Z882	0.00	84.52	74.52	0.00
Z883	0.00	84.52	74.52	0.00
Z884	0.00	84.52	74.52	0.00
Z885	0.00	84.52	74.52	0.00
Z886	0.00	84.52	74.52	0.00
Z887	0.00	84.52	74.52	0.00
Z888	0.00	84.06	74.06	0.00
Z889	0.00	84.10	74.10	0.00
Z890	0.00	84.12	74.12	0.00
Z891	0.00	84.15	74.15	0.00
Z892	0.00	84.17	74.17	0.00
Z893	0.00	84.20	74.20	0.00
Z894	0.00	84.20	74.20	0.00
Z895	0.00	84.23	74.23	0.00
Z896	0.00	84.21	74.21	0.00
Z897	0.00	83.77	73.77	0.00
Z898	0.00	83.77	73.77	0.00
Z899	0.00	83.55	73.55	0.00
Z900	0.00	83.55	73.55	0.00
Z901	0.00	83.55	73.55	0.00
Z902	0.00	83.69	73.69	0.00
Z903	0.00	83.69	73.69	0.00
Z904	0.00	83.68	73.68	0.00
Z905	0.00	83.68	73.68	0.00
Z906	0.00	83.68	73.68	0.00
Z907	0.00	83.67	73.67	0.00
Z908	0.00	83.66	73.66	0.00
Z909	0.00	83.64	73.64	0.00
Z910	0.00	83.64	73.64	0.00
Z911	0.00	83.63	73.63	0.00
Z912	0.00	83.61	73.61	0.00
Z913	0.00	83.60	73.60	0.00
Z914	0.00	83.59	73.59	0.00
Z915	0.00	83.58	73.58	0.00
Z916	0.00	83.57	73.57	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z917	0.00	83.56	73.56	0.00
Z918	0.00	83.56	73.56	0.00
Z919	0.00	83.55	73.55	0.00
Z920	0.00	83.53	73.53	0.00
Z921	0.00	83.53	73.53	0.00
Z922	0.00	83.53	73.53	0.00
Z923	0.00	83.52	73.52	0.00
Z924	0.00	83.51	73.51	0.00
Z925	0.00	83.51	73.51	0.00
Z926	0.00	83.50	73.50	0.00
Z927	0.00	83.48	73.48	0.00
Z928	0.00	83.48	73.48	0.00
Z929	0.00	83.47	73.47	0.00
Z930	0.00	83.44	73.44	0.00
Z931	0.00	83.44	73.44	0.00
Z932	0.00	83.43	73.43	0.00
Z933	0.00	83.40	73.40	0.00
Z934	0.00	83.41	73.41	0.00
Z935	0.00	83.29	73.29	0.00
Z936	0.00	83.29	73.29	0.00
Z937	0.00	83.29	73.29	0.00
Z938	0.00	83.29	73.29	0.00
Z939	0.00	83.29	73.29	0.00
Z940	0.00	83.29	73.29	0.00
Z942	0.00	83.29	73.29	0.00
Z943	0.00	83.29	73.29	0.00
Z944	0.00	83.29	73.29	0.00
Z945	0.00	80.32	70.32	0.00
Z946	0.00	80.32	70.32	0.00
Z947	0.00	80.32	70.32	0.00
Z948	0.00	80.32	70.32	0.00
Z949	0.00	80.32	70.32	0.00
Z950	0.00	80.32	70.32	0.00
Z951	0.00	80.32	70.32	0.00
Z952	0.00	80.32	70.32	0.00
Z953	0.00	80.32	70.32	0.00
Z954	0.00	80.32	70.32	0.00
Z955	0.00	80.32	70.32	0.00
Z956	0.00	80.32	70.32	0.00
Z957	0.00	80.32	70.32	0.00
Z958	0.00	80.32	70.32	0.00
Z959	0.00	80.32	70.32	0.00
Z960	0.00	81.37	71.37	0.00
Z961	0.00	84.52	74.52	0.00
Z962	0.00	84.52	74.52	0.00
Z963	0.00	84.52	74.52	0.00
Z964	0.00	84.52	74.52	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z965	0.00	84.52	74.52	0.00
Z966	0.00	84.52	74.52	0.00
Z967	0.00	84.52	74.52	0.00
Z968	0.00	84.30	74.30	0.00
Z969	0.00	84.30	74.30	0.00
Z970	0.00	84.30	74.30	0.00
Z971	0.00	84.07	74.07	0.00
Z972	0.00	83.55	73.55	0.00
Z973	0.00	83.55	73.55	0.00
Z974	0.00	83.77	73.77	0.00
Z975	0.00	83.69	73.69	0.00
Z976	0.00	83.68	73.68	0.00
Z977	0.00	83.68	73.68	0.00
Z978	0.00	83.68	73.68	0.00
Z979	0.00	83.67	73.67	0.00
Z980	0.00	83.66	73.66	0.00
Z981	0.00	83.64	73.64	0.00
Z982	0.00	83.41	73.41	0.00
Z983	0.00	83.43	73.43	0.00
Z984	0.00	83.44	73.44	0.00
Z985	0.00	83.44	73.44	0.00
Z986	0.00	83.47	73.47	0.00
Z987	0.00	83.48	73.48	0.00
Z988	0.00	83.48	73.48	0.00
Z989	0.00	83.50	73.50	0.00
Z990	0.00	83.51	73.51	0.00
Z991	0.00	83.52	73.52	0.00
Z992	0.00	83.53	73.53	0.00
Z993	0.00	83.53	73.53	0.00
Z994	0.00	83.53	73.53	0.00
Z995	0.00	83.56	73.56	0.00
Z996	0.00	83.56	73.56	0.00
Z997	0.00	83.57	73.57	0.00
Z998	0.00	83.58	73.58	0.00
Z999	0.00	83.59	73.59	0.00
Z1000	0.00	83.60	73.60	0.00
Z1001	0.00	83.61	73.61	0.00
Z1002	0.00	83.63	73.63	0.00
Z1003	0.00	84.23	74.23	0.00
Z1004	0.00	84.21	74.21	0.00
Z1005	0.00	84.20	74.20	0.00
Z1006	0.00	84.17	74.17	0.00
Z1007	0.00	84.15	74.15	0.00
Z1008	0.00	84.15	74.15	0.00
Z1009	0.00	84.12	74.12	0.00
Z1010	0.00	84.10	74.10	0.00
Z1011	0.00	84.07	74.07	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1012	0.00	84.20	74.20	0.00
Z1013	0.00	84.20	74.20	0.00
Z1014	0.00	84.20	74.20	0.00
Z1015	0.00	84.20	74.20	0.00
Z1016	0.00	84.20	74.20	0.00
Z1017	0.00	84.20	74.20	0.00
Z1018	0.00	84.20	74.20	0.00
Z1019	0.00	84.20	74.20	0.00
Z1020	0.00	84.20	74.20	0.00
Z1021	0.00	84.20	74.20	0.00
Z1022	0.00	84.20	74.20	0.00
Z1023	0.00	84.20	74.20	0.00
Z1024	0.00	84.20	74.20	0.00
Z1025	0.00	84.20	74.20	0.00
Z1026	0.00	84.20	74.20	0.00
Z1027	0.00	84.20	74.20	0.00
Z1028	0.00	84.20	74.20	0.00
Z1029	0.00	84.20	74.20	0.00
Z1030	0.00	84.20	74.20	0.00
Z1031	0.00	84.20	74.20	0.00
Z1032	0.00	83.69	73.69	0.00
Z1033	0.00	83.69	73.69	0.00
Z1034	0.00	83.69	73.69	0.00
Z1035	0.00	83.69	73.69	0.00
Z1036	0.00	83.69	73.69	0.00
Z1037	0.00	83.69	73.69	0.00
Z1038	0.00	83.69	73.69	0.00
Z1039	0.00	83.69	73.69	0.00
Z1040	0.00	83.69	73.69	0.00
Z1041	0.00	83.69	73.69	0.00
Z1042	0.00	83.69	73.69	0.00
Z1043	0.00	83.69	73.69	0.00
Z1044	0.00	83.69	73.69	0.00
Z1045	0.00	83.69	73.69	0.00
Z1046	0.00	83.64	73.64	0.00
Z1047	0.00	83.64	73.64	0.00
Z1048	0.00	83.64	73.64	0.00
Z1049	0.00	83.64	73.64	0.00
Z1050	0.00	83.64	73.64	0.00
Z1051	0.00	83.64	73.64	0.00
Z1052	0.00	83.64	73.64	0.00
Z1053	0.00	83.64	73.64	0.00
Z1054	0.00	83.64	73.64	0.00
Z1055	0.00	83.64	73.64	0.00
Z1056	0.00	83.64	73.64	0.00
Z1057	0.00	83.64	73.64	0.00
Z1058	0.00	83.64	73.64	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z11059	0.00	83.64	73.64	0.00
Z11060	0.00	83.64	73.64	0.00
Z11061	0.00	83.64	73.64	0.00
Z11062	0.00	83.64	73.64	0.00
Z11063	0.00	83.64	73.64	0.00
Z11064	0.00	83.64	73.64	0.00
Z11065	0.00	83.55	73.55	0.00
Z11066	0.00	83.55	73.55	0.00
Z11067	0.00	83.55	73.55	0.00
Z11068	0.00	83.55	73.55	0.00
Z11069	0.00	83.55	73.55	0.00
Z11070	0.00	83.55	73.55	0.00
Z11071	0.00	83.55	73.55	0.00
Z11072	0.00	83.55	73.55	0.00
Z11073	0.00	83.55	73.55	0.00
Z11074	0.00	83.55	73.55	0.00
Z11075	0.00	83.55	73.55	0.00
Z11076	0.00	83.51	73.51	0.00
Z11077	0.00	83.51	73.51	0.00
Z11078	0.00	83.51	73.51	0.00
Z11079	0.00	83.51	73.51	0.00
Z11080	0.00	83.51	73.51	0.00
Z11081	0.00	83.51	73.51	0.00
Z11082	0.00	83.51	73.51	0.00
Z11083	0.00	83.51	73.51	0.00
Z11084	0.00	83.51	73.51	0.00
Z11085	0.00	83.51	73.51	0.00
Z11086	0.00	83.51	73.51	0.00
Z11087	0.00	83.51	73.51	0.00
Z11088	0.00	83.29	73.29	0.00
Z11089	0.00	83.29	73.29	0.00
Z11090	0.00	83.29	73.29	0.00
Z11091	0.00	83.29	73.29	0.00
Z11092	0.00	83.29	73.29	0.00
Z11093	0.00	83.29	73.29	0.00
Z11094	0.00	83.29	73.29	0.00
Z11095	0.00	83.29	73.29	0.00
Z11096	0.00	83.29	73.29	0.00
Z11097	0.00	83.29	73.29	0.00
Z11098	0.00	83.29	73.29	0.00
Z11099	0.00	83.29	73.29	0.00
Z11100	0.00	83.29	73.29	0.00
Z11101	0.00	83.29	73.29	0.00
Z11102	0.00	83.29	73.29	0.00
Z11103	0.00	83.29	73.29	0.00
Z11104	0.00	77.52	67.52	0.00
Z11105	0.00	77.52	67.52	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z11106	0.00	77.52	67.52	0.00
Z11107	0.00	77.52	67.52	0.00
Z11108	0.00	83.29	73.29	0.00
Z11109	0.00	83.29	73.29	0.00
Z11110	0.00	83.29	73.29	0.00
Z11111	0.00	83.29	73.29	0.00
Z11112	0.00	83.29	73.29	0.00
Z11113	0.00	83.29	73.29	0.00
Z11114	0.00	83.29	73.29	0.00
Z11115	0.00	83.29	73.29	0.00
Z11116	0.00	83.29	73.29	0.00
Z11117	0.00	83.29	73.29	0.00
Z11118	0.00	83.29	73.29	0.00
Z11119	0.00	83.29	73.29	0.00
Z11120	0.00	83.29	73.29	0.00
Z11121	0.00	83.29	73.29	0.00
Z11122	0.00	83.29	73.29	0.00
Z11123	0.00	83.29	73.29	0.00
Z11124	0.00	83.29	73.29	0.00
Z11125	0.00	83.29	73.29	0.00
Z11126	0.00	80.32	70.32	0.00
Z11127	0.00	80.32	70.32	0.00
Z11128	0.00	80.32	70.32	0.00
Z11129	0.00	80.32	70.32	0.00
Z11130	0.00	80.32	70.32	0.00
Z11131	0.00	80.32	70.32	0.00
Z11132	0.00	80.32	70.32	0.00
Z11133	0.00	80.32	70.32	0.00
Z11134	0.00	80.32	70.32	0.00
Z11135	0.00	80.32	70.32	0.00
Z11136	0.00	80.32	70.32	0.00
Z11137	0.00	80.32	70.32	0.00
Z11138	0.00	80.32	70.32	0.00
Z11139	0.00	80.32	70.32	0.00
Z11140	0.00	80.32	70.32	0.00
Z11141	0.00	80.32	70.32	0.00
Z11142	0.00	83.29	73.29	0.00
Z11143	0.00	83.29	73.29	0.00
Z11144	0.00	83.29	73.29	0.00
Z11145	0.00	83.29	73.29	0.00
Z11146	0.00	83.29	73.29	0.00
Z11147	0.00	83.29	73.29	0.00
Z11148	0.00	83.29	73.29	0.00
Z11149	0.00	83.29	73.29	0.00
Z11150	0.00	83.29	73.29	0.00
Z11151	0.00	83.29	73.29	0.00
Z11152	0.00	83.29	73.29	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1153	0.00	83.29	73.29	0.00
Z1154	0.00	83.29	73.29	0.00
Z1155	0.00	83.29	73.29	0.00
Z1156	0.00	83.29	73.29	0.00
Z1157	0.00	83.29	73.29	0.00
Z1158	0.00	83.29	73.29	0.00
Z1159	0.00	80.32	70.32	0.00
Z1160	0.00	77.52	67.52	0.00
Z1161	0.00	77.52	67.52	0.00
Z1162	0.00	77.52	67.52	0.00
Z1163	0.00	77.52	67.52	0.00
Z1164	0.00	77.52	67.52	0.00
Z1166	0.00	80.32	70.32	0.00
Z1167	0.00	77.52	67.52	0.00
Z1168	0.00	77.52	67.52	0.00
Z1169	0.00	77.52	67.52	0.00
Z1170	0.00	77.52	67.52	0.00
Z1171	0.00	77.52	67.52	0.00
Z1172	0.00	81.37	71.37	0.00
Z1173	0.00	81.37	71.37	0.00
Z1174	0.00	81.37	71.37	0.00
Z1175	0.00	81.37	71.37	0.00
Z1176	0.00	81.37	71.37	0.00
Z1177	0.00	81.37	71.37	0.00
Z1178	0.00	81.37	71.37	0.00
Z1179	0.00	81.37	71.37	0.00
Z1180	0.00	81.37	71.37	0.00
Z1181	0.00	81.37	71.37	0.00
Z1182	0.00	81.37	71.37	0.00
Z1183	0.00	81.37	71.37	0.00
Z1184	0.00	81.37	71.37	0.00
Z1185	0.00	81.37	71.37	0.00
Z1186	0.00	81.37	71.37	0.00
Z1187	0.00	81.37	71.37	0.00
Z1188	0.00	81.37	71.37	0.00
Z1189	0.00	81.37	71.37	0.00
Z1190	0.00	81.37	71.37	0.00
Z1191	0.00	81.37	71.37	0.00
Z1192	0.00	81.37	71.37	0.00
Z1193	0.00	81.37	71.37	0.00
Z1194	0.00	81.37	71.37	0.00
Z1195	0.00	81.37	71.37	0.00
Z1196	0.00	81.37	71.37	0.00
Z1197	0.00	81.37	71.37	0.00
Z1198	0.00	81.37	71.37	0.00
Z1199	0.00	81.37	71.37	0.00
Z1200	0.00	81.37	71.37	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1201	0.00	81.37	71.37	0.00
Z1202	0.00	81.37	71.37	0.00
Z1203	0.00	81.37	71.37	0.00
Z1204	0.00	81.37	71.37	0.00
Z1205	0.00	81.37	71.37	0.00
Z1206	0.00	81.37	71.37	0.00
Z1207	0.00	81.37	71.37	0.00
Z1208	0.00	81.37	71.37	0.00
Z1209	0.00	81.37	71.37	0.00
Z1210	0.00	81.37	71.37	0.00
Z1211	0.00	81.37	71.37	0.00
Z1212	0.00	81.37	71.37	0.00
Z1213	0.00	83.69	73.69	0.00
Z1214	0.00	83.29	73.29	0.00
Z1215	2.72	77.04	67.04	0.00
Z1216	2.72	77.04	67.04	0.00
Z1217	2.72	71.56	61.56	0.00
Z1218	2.72	69.23	59.23	0.00
Z1219	2.72	68.29	58.29	0.00
Z1220	2.72	67.56	57.56	0.00
Z1221	2.72	66.93	56.93	0.00
Z1222	2.72	66.84	56.84	0.00
Z1223	2.72	66.72	56.72	0.00
Z1224	2.72	66.69	56.69	0.00
Z1225	0.00	57.88	47.88	0.00
Z1226	0.00	57.88	47.88	0.00
Z1227	0.00	57.84	47.84	0.00
Z1228	2.72	57.88	47.88	0.00
Z1229	2.72	57.87	47.87	0.00
Z1230	2.72	57.83	47.83	0.00
Z1231	2.72	57.83	47.83	0.00
Z1232	0.00	57.29	47.29	0.00
Z1233	2.72	57.28	47.28	0.00
Z1234	0.00	57.28	47.28	0.00
Z1235	2.72	57.26	47.26	0.00
Z1236	0.00	57.27	47.27	0.00
Z1237	2.72	57.26	47.26	0.00
Z1238	2.72	57.27	47.27	0.00
Z1239	2.72	56.02	46.02	0.00
Z1240	2.72	56.02	46.02	0.00
Z1241	2.72	56.34	46.34	0.00
Z1242	2.72	56.37	46.37	0.00
Z1243	0.00	77.52	67.52	0.00
Z1244	0.00	77.52	67.52	0.00
Z1245	0.00	77.52	67.52	0.00
Z1246	0.00	83.29	73.29	0.00
Z1247	0.00	83.29	73.29	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1248	0.00	80.88	70.88	0.00
S1	-900.32	10.00	0.00	0.00 Reservoir

Link Results:

Link ID	Flow LPS	Velocity m/s	Unit m/s	Headloss m/km	Status
G20	900.32	3.18	12.84		Open
G1	705.78	2.50	7.96		Open
R3	194.54	1.55	16.99		Open
R4	194.54	1.55	5.11		Open
R5	194.54	1.55	5.11		Open
R6	194.54	1.55	5.11		Open
R7	194.54	1.55	5.11		Open
R8	194.54	1.55	5.12		Open
R9	194.54	1.55	5.11		Open
R10	194.54	1.55	5.11		Open
R11	194.54	1.55	5.11		Open
R12	194.54	1.55	5.11		Open
R13	194.54	1.55	5.11		Open
R14	194.54	1.55	5.11		Open
R15	194.54	1.55	5.11		Open
R16	194.54	1.55	5.11		Open
R17	194.54	1.55	5.11		Open
R18	194.54	1.55	5.11		Open
R19	194.54	1.55	5.11		Open
R20	194.54	1.55	5.11		Open
R21	194.54	1.55	5.11		Open
R22	194.54	1.55	5.11		Open
R23	194.54	1.55	5.11		Open
R24	194.54	1.55	5.11		Open
R25	194.54	1.55	5.11		Open
R26	194.54	1.55	5.11		Open
R27	194.54	1.55	5.11		Open
R28	194.54	1.55	5.11		Open
R56	0.00	0.00	0.00		Open
R57	0.00	0.00	0.00		Open
R58	0.00	0.00	0.00		Open
R59	0.00	0.00	0.00		Open
R60	0.00	0.00	0.00		Open
R61	0.00	0.00	0.00		Open
R62	0.00	0.00	0.00		Open
R63	0.00	0.00	0.00		Open
R64	0.00	0.00	0.00		Open
R65	0.00	0.00	0.00		Open
R66	0.00	0.00	0.00		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/s	Headloss m/km	Status
R67	0.00	0.00	0.00	0.00	Open
R68	0.00	0.00	0.00	0.00	Open
R69	0.00	0.00	0.00	0.00	Open
R29	0.00	0.00	0.00	0.00	Open
R71	0.00	0.00	0.00	0.00	Open
R72	0.00	0.00	0.00	0.00	Open
R73	0.00	0.00	0.00	0.00	Open
R74	0.00	0.00	0.00	0.00	Open
R75	0.00	0.00	0.00	0.00	Open
R76	0.00	0.00	0.00	0.00	Open
R77	0.00	0.00	0.00	0.00	Open
R78	0.00	0.00	0.00	0.00	Open
R79	0.00	0.00	0.00	0.00	Open
R80	0.00	0.00	0.00	0.00	Open
R81	0.00	0.00	0.00	0.00	Open
R30	0.00	0.00	0.00	0.00	Open
R31	0.00	0.00	0.00	0.00	Open
R32	0.00	0.00	0.00	0.00	Open
R33	0.00	0.00	0.00	0.00	Open
R34	0.00	0.00	0.00	0.00	Open
R35	0.00	0.00	0.00	0.00	Open
R36	0.00	0.00	0.00	0.00	Open
R37	0.00	0.00	0.00	0.00	Open
R38	0.00	0.00	0.00	0.00	Open
R91	0.00	0.00	0.00	0.00	Open
R92	0.00	0.00	0.00	0.00	Open
R93	0.00	0.00	0.00	0.00	Open
R94	0.00	0.00	0.00	0.00	Open
R95	0.00	0.00	0.00	0.00	Open
R96	0.00	0.00	0.00	0.00	Open
R97	0.00	0.00	0.00	0.00	Open
R98	0.00	0.00	0.00	0.00	Open
R39	0.00	0.00	0.00	0.00	Open
R40	0.00	0.00	0.00	0.00	Open
R41	0.00	0.00	0.00	0.00	Open
R42	0.00	0.00	0.00	0.00	Open
R43	0.00	0.00	0.00	0.00	Open
R44	0.00	0.00	0.00	0.00	Open
R45	0.00	0.00	0.00	0.00	Open
R46	0.00	0.00	0.00	0.00	Open
R47	0.00	0.00	0.00	0.00	Open
R107	0.00	0.00	0.00	0.00	Open
R108	0.00	0.00	0.00	0.00	Open
R109	0.00	0.00	0.00	0.00	Open
R110	0.00	0.00	0.00	0.00	Open
R111	0.00	0.00	0.00	0.00	Open
R112	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R113	0.00	0.00	0.00	0.00	Open
R114	0.00	0.00	0.00	0.00	Open
R49	194.54	1.55	5.11	5.11	Open
R50	189.10	1.50	4.84	4.84	Open
R51	178.22	1.42	4.31	4.31	Open
R52	175.50	1.40	4.19	4.19	Open
R53	172.78	1.37	4.06	4.06	Open
R54	170.06	1.35	3.94	3.94	Open
R55	10.88	0.70	6.03	6.03	Open
R120	8.16	0.52	1.94	1.94	Open
R121	5.44	0.35	0.94	0.94	Open
R122	2.72	0.37	1.66	1.66	Open
R123	2.72	0.37	1.66	1.66	Open
R124	0.00	0.00	0.00	0.00	Open
R125	-2.72	0.37	1.66	1.66	Open
R126	2.72	0.17	0.27	0.27	Open
R127	2.72	0.37	1.66	1.66	Open
R82	156.46	1.25	3.35	3.35	Open
R83	148.30	1.18	3.02	3.02	Open
R84	159.18	1.27	3.46	3.46	Open
R85	145.58	1.16	2.91	2.91	Open
R86	142.86	1.14	2.81	2.81	Open
R87	140.14	1.12	2.71	2.71	Open
R88	137.42	1.09	2.61	2.61	Open
R89	134.70	1.07	2.51	2.51	Open
R90	131.98	1.05	2.41	2.41	Open
R99	129.26	1.03	2.31	2.31	Open
R100	123.82	0.99	25.56	25.56	Open
R101	8.16	0.52	3.69	3.69	Open
R102	5.44	0.35	0.94	0.94	Open
R103	2.72	0.17	0.27	0.27	Open
R104	2.72	0.37	1.66	1.66	Open
R105	2.72	0.37	1.66	1.66	Open
R106	2.72	0.37	1.66	1.66	Open
R115	2.72	0.37	1.66	1.66	Open
R116	2.72	0.17	0.27	0.27	Open
R117	2.72	0.37	1.66	1.66	Open
R118	10.88	0.70	6.95	6.95	Open
R119	8.16	0.52	6.49	6.49	Open
R128	2.72	0.17	0.27	0.27	Open
R129	2.72	0.37	1.66	1.66	Open
R130	2.72	0.37	1.66	1.66	Open
GI31	513.01	1.81	4.26	4.26	Open
R131	0.00	0.00	0.00	0.00	Open
R132	0.00	0.00	0.00	0.00	Open
R133	0.00	0.00	0.00	0.00	Open
R134	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R135	0.00	0.00	0.00	0.00	Open
R136	0.00	0.00	0.00	0.00	Open
R137	0.00	0.00	0.00	0.00	Open
R138	0.00	0.00	0.00	0.00	Open
R139	0.00	0.00	0.00	0.00	Open
R140	0.00	0.00	0.00	0.00	Open
R141	0.00	0.00	0.00	0.00	Open
R142	0.00	0.00	0.00	0.00	Open
R143	0.00	0.00	0.00	0.00	Open
R144	0.00	0.00	0.00	0.00	Open
R145	0.00	0.00	0.00	0.00	Open
R146	0.00	0.00	0.00	0.00	Open
R147	0.00	0.00	0.00	0.00	Open
GI48	513.01	1.81	4.26	4.26	Open
GI49	513.01	1.81	4.26	4.26	Open
R149	29.92	1.92	78.97	78.97	Open
R150	24.48	1.57	14.43	14.43	Open
R151	21.76	1.39	11.61	11.61	Open
R152	19.04	1.22	9.08	9.08	Open
R153	16.32	1.05	6.84	6.84	Open
R154	8.16	0.52	3.91	3.91	Open
R155	5.44	0.35	0.94	0.94	Open
R156	8.16	0.52	1.94	1.94	Open
R157	5.44	0.35	0.94	0.94	Open
R158	2.72	0.17	0.27	0.27	Open
R159	5.44	0.35	1.56	1.56	Open
R160	2.72	0.17	0.27	0.27	Open
R161	2.72	0.37	1.66	1.66	Open
R162	2.72	0.37	1.66	1.66	Open
R163	2.72	0.37	1.66	1.66	Open
R164	2.72	0.37	1.66	1.66	Open
R165	2.72	0.37	1.66	1.66	Open
R166	2.72	0.37	1.66	1.66	Open
R167	2.72	0.37	1.66	1.66	Open
R168	2.72	0.37	1.66	1.66	Open
R169	2.72	0.37	1.66	1.66	Open
GI70	483.09	1.71	3.79	3.79	Open
GI71	269.12	2.14	11.55	11.55	Open
GI72	193.59	1.54	5.07	5.07	Open
R172	38.08	1.24	19.41	19.41	Open
R173	35.36	1.16	5.48	5.48	Open
R174	32.64	1.07	4.73	4.73	Open
R175	29.92	0.98	4.03	4.03	Open
R176	27.20	0.89	3.39	3.39	Open
R177	24.48	0.80	2.79	2.79	Open
R178	8.16	0.52	4.14	4.14	Open
R179	5.44	0.35	0.94	0.94	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R180	2.72	0.17		0.27	Open
R181	16.32	1.05		7.29	Open
R182	13.60	0.87		4.90	Open
R183	5.44	0.35		1.44	Open
R184	2.72	0.17		0.27	Open
R185	8.16	0.52		1.94	Open
R186	5.44	0.35		0.94	Open
R187	2.72	0.17		0.27	Open
R188	2.72	0.37		1.66	Open
R189	2.72	0.37		1.66	Open
R190	2.72	0.37		1.66	Open
R191	2.72	0.37		1.66	Open
R192	2.72	0.37		1.66	Open
R193	2.72	0.37		1.66	Open
R194	2.72	0.37		1.66	Open
R195	2.72	0.37		1.66	Open
R196	2.72	0.37		1.66	Open
R197	2.72	0.37		1.66	Open
R198	2.72	0.37		1.66	Open
G199	155.51	1.24		3.31	Open
G200	147.35	1.17		3.31	Open
G201	250.35	1.28		2.67	Open
G202	236.75	1.21		2.40	Open
G203	185.07	0.94		1.49	Open
R200	13.60	0.87		31.65	Open
R201	8.16	0.52		6.33	Open
R202	5.44	0.35		0.94	Open
R203	2.72	0.17		0.27	Open
R204	5.44	0.35		0.94	Open
R205	2.72	0.17		0.27	Open
R206	2.72	0.37		1.66	Open
R207	2.72	0.37		1.66	Open
R208	2.72	0.37		1.66	Open
R209	51.68	1.69		81.71	Open
R210	40.80	1.33		7.14	Open
R211	38.08	1.24		6.28	Open
R212	29.92	0.98		4.03	Open
R213	27.20	0.89		3.39	Open
R214	24.48	0.80		2.79	Open
R215	21.76	0.71		2.25	Open
R216	19.04	0.62		1.77	Open
R217	16.32	0.53		1.34	Open
R218	8.16	0.52		2.18	Open
R219	5.44	0.35		0.94	Open
R220	2.72	0.17		0.27	Open
R221	8.16	0.52		2.05	Open
R222	5.44	0.35		0.94	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R223	2.72	0.17		0.27	Open
R224	8.16	0.52		1.99	Open
R225	5.44	0.35		0.94	Open
R226	2.72	0.17		0.27	Open
R48	0.00	0.00		0.00	Open
R70	0.00	0.00		0.00	Open
R148	0.00	0.00		0.00	Open
R170	0.00	0.00		0.00	Open
R171	0.00	0.00		0.00	Open
R199	0.00	0.00		0.00	Open
R227	0.00	0.00		0.00	Open
R228	0.00	0.00		0.00	Open
R229	0.00	0.00		0.00	Open
R230	0.00	0.00		0.00	Open
R231	0.00	0.00		0.00	Open
R232	0.00	0.00		0.00	Open
R233	0.00	0.00		0.00	Open
R234	0.00	0.00		0.00	Open
R235	0.00	0.00		0.00	Open
R236	0.00	0.00		0.00	Open
R237	0.00	0.00		0.00	Open
R238	0.00	0.00		0.00	Open
R239	0.00	0.00		0.00	Open
R240	0.00	0.00		0.00	Open
R241	0.00	0.00		0.00	Open
R242	0.00	0.00		0.00	Open
R243	0.00	0.00		0.00	Open
R244	0.00	0.00		0.00	Open
R245	0.00	0.00		0.00	Open
R246	0.00	0.00		0.00	Open
R247	0.00	0.00		0.00	Open
R248	0.00	0.00		0.00	Open
R249	0.00	0.00		0.00	Open
R250	0.00	0.00		0.00	Open
R251	0.00	0.00		0.00	Open
R252	0.00	0.00		0.00	Open
R253	0.00	0.00		0.00	Open
R254	0.00	0.00		0.00	Open
R255	0.00	0.00		0.00	Open
R256	0.00	0.00		0.00	Open
R257	0.00	0.00		0.00	Open
R258	0.00	0.00		0.00	Open
R259	0.00	0.00		0.00	Open
R260	0.00	0.00		0.00	Open
R261	0.00	0.00		0.00	Open
R263	0.00	0.00		0.00	Open
R264	0.00	0.00		0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R265	0.00	0.00	0.00	0.00	Open
R266	0.00	0.00	0.00	0.00	Open
R267	0.00	0.00	0.00	0.00	Open
R268	0.00	0.00	0.00	0.00	Open
R269	0.00	0.00	0.00	0.00	Open
R270	0.00	0.00	0.00	0.00	Open
R271	-192.77	1.53	5.02	0.00	Open
R272	0.00	0.00	0.00	0.00	Open
R273	0.00	0.00	0.00	0.00	Open
R274	0.00	0.00	0.00	0.00	Open
R275	0.00	0.00	0.00	0.00	Open
R276	0.00	0.00	0.00	0.00	Open
R277	0.00	0.00	0.00	0.00	Open
R278	0.00	0.00	0.00	0.00	Open
R279	0.00	0.00	0.00	0.00	Open
R280	0.00	0.00	0.00	0.00	Open
R281	-192.77	1.53	5.02	0.00	Open
R282	0.00	0.00	0.00	0.00	Open
R283	0.00	0.00	0.00	0.00	Open
R284	0.00	0.00	0.00	0.00	Open
R285	0.00	0.00	0.00	0.00	Open
R286	0.00	0.00	0.00	0.00	Open
R287	0.00	0.00	0.00	0.00	Open
R288	0.00	0.00	0.00	0.00	Open
R289	0.00	0.00	0.00	0.00	Open
R290	0.00	0.00	0.00	0.00	Open
R291	0.00	0.00	0.00	0.00	Open
R292	0.00	0.00	0.00	0.00	Open
R293	0.00	0.00	0.00	0.00	Open
R294	192.77	1.53	5.02	0.00	Open
R295	0.00	0.00	0.00	0.00	Open
R296	0.00	0.00	0.00	0.00	Open
R297	0.00	0.00	0.00	0.00	Open
R298	0.00	0.00	0.00	0.00	Open
R299	0.00	0.00	0.00	0.00	Open
R300	0.00	0.00	0.00	0.00	Open
R301	0.00	0.00	0.00	0.00	Open
R302	0.00	0.00	0.00	0.00	Open
R303	0.00	0.00	0.00	0.00	Open
R304	0.00	0.00	0.00	0.00	Open
R305	0.00	0.00	0.00	0.00	Open
R306	0.00	0.00	0.00	0.00	Open
R307	0.00	0.00	0.00	0.00	Open
R308	0.00	0.00	0.00	0.00	Open
R309	0.00	0.00	0.00	0.00	Open
R310	192.77	1.53	5.02	0.00	Open
R311	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R312	0.00	0.00	0.00	0.00	Open
R313	0.00	0.00	0.00	0.00	Open
R314	0.00	0.00	0.00	0.00	Open
R315	0.00	0.00	0.00	0.00	Open
R316	0.00	0.00	0.00	0.00	Open
R317	0.00	0.00	0.00	0.00	Open
R318	0.00	0.00	0.00	0.00	Open
R319	0.00	0.00	0.00	0.00	Open
R320	0.00	0.00	0.00	0.00	Open
R321	0.00	0.00	0.00	0.00	Open
R322	0.00	0.00	0.00	0.00	Open
R323	0.00	0.00	0.00	0.00	Open
R324	0.00	0.00	0.00	0.00	Open
R325	0.00	0.00	0.00	0.00	Open
R326	0.00	0.00	0.00	0.00	Open
R327	0.00	0.00	0.00	0.00	Open
R328	0.00	0.00	0.00	0.00	Open
R329	0.00	0.00	0.00	0.00	Open
R330	0.00	0.00	0.00	0.00	Open
R331	0.00	0.00	0.00	0.00	Open
R332	0.00	0.00	0.00	0.00	Open
R333	0.00	0.00	0.00	0.00	Open
R334	0.00	0.00	0.00	0.00	Open
R335	0.00	0.00	0.00	0.00	Open
R336	0.00	0.00	0.00	0.00	Open
R337	0.00	0.00	0.00	0.00	Open
R338	0.00	0.00	0.00	0.00	Open
R339	0.00	0.00	0.00	0.00	Open
R340	0.00	0.00	0.00	0.00	Open
R341	0.00	0.00	0.00	0.00	Open
R342	0.00	0.00	0.00	0.00	Open
R343	0.00	0.00	0.00	0.00	Open
R344	0.00	0.00	0.00	0.00	Open
R345	0.00	0.00	0.00	0.00	Open
R346	0.00	0.00	0.00	0.00	Open
R347	0.00	0.00	0.00	0.00	Open
R348	0.00	0.00	0.00	0.00	Open
R349	0.00	0.00	0.00	0.00	Open
R350	0.00	0.00	0.00	0.00	Open
R351	0.00	0.00	0.00	0.00	Open
R352	192.77	1.53	5.02	0.00	Open
R353	135.65	1.08	2.54	0.00	Open
R354	-103.01	0.82	1.70	0.00	Open
R355	10.88	0.70	12.17	0.00	Open
R356	8.16	0.52	1.94	0.00	Open
R357	2.72	0.17	0.27	0.00	Open
R358	2.72	0.37	1.66	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R359	2.72	0.37		1.66	Open
R360	2.72	0.37		1.66	Open
R361	46.24	1.51		18.17	Open
R362	43.52	1.42		8.04	Open
R363	40.80	1.33		7.14	Open
R364	10.88	0.70		8.33	Open
R365	8.16	0.52		1.94	Open
R366	5.44	0.35		0.94	Open
R367	2.72	0.17		0.27	Open
R368	2.72	0.17		0.30	Open
R369	29.92	1.92		26.33	Open
R370	27.20	1.74		17.53	Open
R371	24.48	1.57		14.43	Open
R372	21.76	1.39		11.61	Open
R373	8.16	0.52		2.25	Open
R374	5.44	0.35		0.94	Open
R375	2.72	0.17		0.27	Open
R376	13.60	0.87		4.90	Open
R377	10.88	0.70		3.27	Open
R378	8.16	0.52		1.94	Open
R379	2.72	0.17		0.27	Open
R380	2.72	0.37		1.66	Open
R381	2.72	0.37		1.66	Open
R382	2.72	0.37		1.66	Open
R383	2.72	0.37		1.66	Open
R384	2.72	0.37		1.66	Open
R385	2.72	0.37		1.66	Open
R386	2.72	0.37		1.66	Open
R387	2.72	0.37		1.66	Open
R388	2.72	0.37		1.66	Open
R389	32.64	2.09		104.73	Open
R390	16.32	1.05		6.84	Open
R391	13.60	0.87		4.90	Open
R392	10.88	0.70		3.27	Open
R393	8.16	0.52		1.94	Open
R394	5.44	0.35		0.94	Open
R395	2.72	0.17		0.27	Open
R396	2.72	0.37		1.66	Open
R397	2.72	0.37		1.66	Open
R398	2.72	0.37		1.66	Open
R399	2.72	0.37		1.66	Open
R400	2.72	0.17		0.27	Open
R401	16.32	1.05		12.03	Open
R402	2.72	0.37		1.66	Open
R403	2.72	0.37		1.66	Open
R404	10.88	0.70		3.27	Open
R405	2.72	0.37		1.66	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R406	2.72	0.37		1.66	Open
R407	5.44	0.35		0.94	Open
R408	2.72	0.37		1.66	Open
R409	2.72	0.17		0.27	Open
R410	10.88	0.70		3.59	Open
R411	8.16	0.52		1.94	Open
R412	5.44	0.35		0.94	Open
R413	2.72	0.17		0.27	Open
R414	2.72	0.37		1.66	Open
R415	2.72	0.37		1.66	Open
R416	2.72	0.37		1.66	Open
R417	2.72	0.37		1.66	Open
R418	2.72	0.37		1.66	Open
R419	2.72	0.37		1.66	Open
R420	2.72	0.37		1.66	Open
R421	2.72	0.37		1.66	Open
R422	2.72	0.37		1.66	Open
R423	2.72	0.37		1.66	Open
R424	2.72	0.37		1.66	Open
R425	2.72	0.37		1.66	Open
R426	2.72	0.37		1.66	Open
R427	2.72	0.37		1.66	Open
R428	2.72	0.37		1.66	Open
G429	157.87	0.80		1.10	Open
G430	144.27	0.73		1.13	Open
G431	130.05	0.66		0.76	Open
R429	46.24	0.60		3.11	Open
R431	2.72	0.17		0.44	Open
R433	-2.72	0.17		0.27	Open
R434	-5.44	0.35		0.94	Open
R435	-8.16	0.52		1.94	Open
R436	-10.88	0.70		3.93	Open
R437	-16.32	0.53		1.34	Open
R438	-19.04	0.62		1.77	Open
R439	-21.76	0.71		2.25	Open
R440	-24.48	0.80		2.79	Open
R441	-27.20	0.89		4.50	Open
R442	2.72	0.37		1.66	Open
R443	2.72	0.37		1.66	Open
R444	2.72	0.37		1.66	Open
R445	2.72	0.37		1.66	Open
R446	2.72	0.37		1.66	Open
R447	2.72	0.37		1.66	Open
R448	2.72	0.37		1.66	Open
R449	2.72	0.37		1.66	Open
R450	2.72	0.37		1.66	Open
R451	2.72	0.37		1.66	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R452	2.72	0.37		1.66	Open
R453	2.72	0.37		1.66	Open
R454	2.72	0.37		1.66	Open
R455	13.60	0.87		20.71	Open
R456	5.44	0.35		0.94	Open
R457	2.72	0.37		1.66	Open
R458	2.72	0.17		0.27	Open
R459	8.16	0.52		2.24	Open
R460	5.44	0.35		0.94	Open
R461	2.72	0.17		0.27	Open
R462	2.72	0.37		1.66	Open
R463	2.72	0.37		1.66	Open
R464	8.16	0.52		14.46	Open
R465	5.44	0.35		0.94	Open
R466	2.72	0.17		0.27	Open
R467	2.72	0.37		1.66	Open
R468	2.72	0.37		1.66	Open
R469	38.08	0.63		8.76	Open
R470	35.36	0.58		1.04	Open
R471	32.64	0.54		0.90	Open
R472	29.92	0.49		0.77	Open
R473	2.72	0.37		1.66	Open
R474	2.72	0.37		1.66	Open
R475	2.72	0.37		1.66	Open
R476	2.72	0.37		1.66	Open
R477	27.20	0.45		0.65	Open
R478	24.48	0.64		1.80	Open
R479	21.76	0.57		1.30	Open
R480	2.72	0.37		1.66	Open
R481	2.72	0.37		1.66	Open
R482	21.76	0.71		2.37	Open
R483	19.04	0.62		1.77	Open
R484	13.60	0.87		12.63	Open
R485	8.16	0.52		1.94	Open
R486	5.44	0.35		0.94	Open
R487	2.72	0.17		0.27	Open
R488	5.44	0.35		1.01	Open
R489	2.72	0.37		1.66	Open
R490	2.72	0.37		1.66	Open
R491	2.72	0.17		0.27	Open
R492	2.72	0.37		1.66	Open
R493	2.72	0.37		1.66	Open
R494	2.72	0.37		1.66	Open
R495	2.72	0.37		1.66	Open
R496	75.54	1.97		16.15	Open
R497	29.92	1.92		83.27	Open
R498	5.44	0.35		3.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R499	2.72	0.17		0.27	Open
R500	2.72	0.37		1.66	Open
R501	2.72	0.37		1.66	Open
R502	24.48	1.57		14.43	Open
R503	21.76	1.39		11.61	Open
R504	19.04	1.22		9.08	Open
R505	2.72	0.37		1.66	Open
R506	2.72	0.37		1.66	Open
R507	16.32	1.05		6.84	Open
R508	13.60	0.87		4.90	Open
R509	2.72	0.37		1.66	Open
R510	2.72	0.17		0.29	Open
R511	10.88	0.70		3.27	Open
R512	8.16	0.52		1.94	Open
R513	5.44	0.35		0.94	Open
R514	2.72	0.17		0.27	Open
R515	2.72	0.37		1.66	Open
R516	2.72	0.37		1.66	Open
R517	2.72	0.37		1.66	Open
R518	45.62	1.19		5.03	Open
R519	42.90	1.12		4.49	Open
R520	40.18	1.05		3.98	Open
R521	2.72	0.37		1.66	Open
R522	2.72	0.37		1.66	Open
R523	8.16	0.52		5.47	Open
R524	5.44	0.35		0.94	Open
R525	2.72	0.17		0.27	Open
R526	2.72	0.37		1.66	Open
R527	2.72	0.37		1.66	Open
R528	32.02	0.83		2.62	Open
R529	14.22	0.37		2.84	Open
R530	11.50	0.30		0.41	Open
R531	8.78	0.23		0.25	Open
R532	6.06	0.16		0.13	Open
R533	3.34	0.09		0.05	Open
R534	0.62	0.02		0.00	Open
R535	2.72	0.37		1.66	Open
R536	2.72	0.37		1.66	Open
R537	2.72	0.37		1.66	Open
R538	2.72	0.37		1.66	Open
R539	2.72	0.37		1.66	Open
R540	32.64	1.07		28.43	Open
R541	8.16	0.52		2.07	Open
R542	5.44	0.35		0.94	Open
R543	2.72	0.17		0.27	Open
R544	2.72	0.37		1.66	Open
R545	2.72	0.37		1.66	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R546	24.48	0.80	2.79	Open	
R547	21.76	0.71	2.25	Open	
R548	19.04	0.62	1.77	Open	
R549	8.16	0.52	4.50	Open	
R550	5.44	0.35	0.94	Open	
R551	2.72	0.17	0.27	Open	
R552	2.72	0.37	1.66	Open	
R553	2.72	0.37	1.66	Open	
R554	2.72	0.37	1.66	Open	
R555	2.72	0.37	1.66	Open	
R556	2.72	0.37	1.66	Open	
R557	10.88	0.70	3.74	Open	
R558	8.16	0.52	1.94	Open	
R559	5.44	0.35	0.94	Open	
R560	2.72	0.17	0.27	Open	
R561	2.72	0.37	1.66	Open	
R562	2.72	0.37	1.66	Open	
R563	2.72	0.37	1.66	Open	
R564	213.96	1.09	2.14	Open	
G565	83.81	0.43	0.33	Open	
R565	21.76	1.39	25.30	Open	
R566	13.60	0.87	4.90	Open	
R567	10.88	0.70	3.27	Open	
R568	2.72	0.17	0.30	Open	
R569	8.16	0.52	1.94	Open	
R570	5.44	0.35	0.94	Open	
R571	2.72	0.17	0.27	Open	
R572	8.16	0.52	6.67	Open	
R573	5.44	0.35	0.94	Open	
R574	2.72	0.37	1.66	Open	
R575	2.72	0.37	1.66	Open	
R576	2.72	0.37	1.66	Open	
R577	2.72	0.37	1.66	Open	
R578	2.72	0.37	1.66	Open	
R579	2.72	0.17	0.40	Open	
G580	62.05	0.32	0.19	Open	
G581	17.87	0.09	0.02	Open	
R580	2.72	0.37	1.66	Open	
R581	2.72	0.37	1.66	Open	
R582	2.72	0.37	1.66	Open	
R583	2.72	0.37	1.66	Open	
R584	2.72	0.37	1.66	Open	
R585	2.72	0.37	1.66	Open	
R586	2.72	0.37	1.66	Open	
R587	2.72	0.37	1.66	Open	
R588	2.72	0.37	1.66	Open	
R589	2.72	0.37	1.66	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R590	2.72	0.37	1.66	Open	
R591	2.72	0.37	1.66	Open	
R592	2.72	0.37	1.66	Open	
R593	2.72	0.37	1.66	Open	
R594	2.72	0.37	1.66	Open	
R595	2.72	0.37	1.66	Open	
R596	44.19	0.73	10.62	Open	
R597	41.47	0.69	1.40	Open	
R598	38.75	0.64	1.23	Open	
R599	2.72	0.17	0.42	Open	
R600	36.03	0.60	1.08	Open	
R601	-7.49	0.12	0.06	Open	
R602	5.44	0.35	1.46	Open	
R603	2.72	0.17	0.27	Open	
R604	43.52	0.72	11.01	Open	
R605	40.80	0.67	1.36	Open	
R606	13.60	0.44	1.32	Open	
R607	10.88	0.36	0.64	Open	
R608	8.16	0.27	0.38	Open	
R609	2.72	0.17	0.43	Open	
R610	27.20	0.45	0.65	Open	
R611	24.48	0.40	0.54	Open	
R612	13.60	0.44	1.44	Open	
R613	10.88	0.36	0.64	Open	
R614	8.16	0.52	4.14	Open	
R615	2.72	0.17	0.27	Open	
R616	10.88	0.36	3.28	Open	
R617	8.16	0.27	0.38	Open	
R618	5.44	0.35	1.25	Open	
R619	2.72	0.17	0.27	Open	
R620	-12.93	0.21	0.17	Open	
R621	-15.65	0.26	0.24	Open	
R622	-29.25	0.48	0.74	Open	
R623	45.57	0.75	2.23	Open	
R624	40.13	0.66	1.32	Open	
R625	2.72	0.37	1.66	Open	
R627	2.72	0.37	1.66	Open	
R628	13.60	0.87	17.32	Open	
R629	5.44	0.35	2.93	Open	
R630	8.16	0.52	1.94	Open	
R631	2.72	0.37	1.66	Open	
R632	2.72	0.37	1.66	Open	
R633	2.72	0.17	0.27	Open	
R634	2.72	0.37	1.66	Open	
R635	2.72	0.17	0.27	Open	
R636	5.44	0.35	2.76	Open	
R637	2.72	0.17	0.27	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R638	10.88	0.70	3.62	Open	Open
R639	8.16	0.52	1.94	Open	Open
R640	2.72	0.17	0.27	Open	Open
R641	2.72	0.37	1.66	Open	Open
R642	2.72	0.37	1.66	Open	Open
R643	2.72	0.37	1.66	Open	Open
R644	-27.71	0.14	0.04	Open	Open
R645	-73.95	0.38	0.26	Open	Open
R646	-101.15	0.52	0.47	Open	Open
R647	-112.03	0.57	0.49	Open	Open
R648	-173.80	0.89	1.32	Open	Open
R649	-184.68	0.94	1.48	Open	Open
R650	-250.75	1.28	2.68	Open	Open
R651	-269.79	1.37	3.09	Open	Open
R652	288.83	1.47	3.53	Open	Open
R653	305.15	1.55	3.93	Open	Open
R654	337.79	1.72	4.79	Open	Open
R655	2.72	0.37	1.66	Open	Open
R656	2.72	0.37	1.66	Open	Open
R657	5.44	0.35	1.21	Open	Open
R658	2.72	0.37	1.66	Open	Open
R659	2.72	0.37	1.66	Open	Open
R660	2.72	0.37	1.66	Open	Open
R661	2.72	0.37	1.66	Open	Open
R662	2.72	0.37	1.66	Open	Open
R663	2.72	0.37	1.66	Open	Open
R664	2.72	0.37	1.66	Open	Open
R665	2.72	0.37	1.66	Open	Open
R666	2.72	0.37	1.66	Open	Open
R667	2.72	0.37	1.66	Open	Open
R668	32.64	2.09	33.92	Open	Open
R669	29.92	1.92	20.92	Open	Open
R670	27.20	1.74	17.53	Open	Open
R671	5.44	0.35	1.00	Open	Open
R672	2.72	0.17	0.27	Open	Open
R673	21.76	1.39	11.61	Open	Open
R674	19.04	1.22	9.08	Open	Open
R675	16.32	1.05	6.84	Open	Open
R676	13.60	0.87	4.90	Open	Open
R677	10.88	0.70	3.27	Open	Open
R678	8.16	0.52	1.94	Open	Open
R679	5.44	0.35	0.94	Open	Open
R680	2.72	0.17	0.27	Open	Open
R681	2.72	0.37	1.66	Open	Open
R682	2.72	0.37	1.66	Open	Open
R683	16.32	1.05	28.62	Open	Open
R684	8.16	0.52	16.67	Open	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R685	5.44	0.35	0.94	Open	Open
R686	2.72	0.17	0.27	Open	Open
R687	8.16	0.52	1.94	Open	Open
R688	5.44	0.35	0.94	Open	Open
R689	2.72	0.17	0.27	Open	Open
R690	2.72	0.37	1.66	Open	Open
R691	2.72	0.37	1.66	Open	Open
R692	16.32	1.05	6.84	Open	Open
R693	13.60	0.87	4.90	Open	Open
R694	10.88	0.70	3.27	Open	Open
R695	8.16	0.52	1.94	Open	Open
R696	2.72	0.17	0.27	Open	Open
R697	5.44	0.35	1.19	Open	Open
R698	2.72	0.17	0.27	Open	Open
R699	2.72	0.37	1.66	Open	Open
R700	2.72	0.37	1.66	Open	Open
R701	2.72	0.37	1.66	Open	Open
R702	2.72	0.37	1.66	Open	Open
R703	2.72	0.37	1.66	Open	Open
R704	19.04	1.22	24.23	Open	Open
R705	16.32	1.05	8.06	Open	Open
R706	16.32	1.05	6.84	Open	Open
R707	5.44	0.35	0.99	Open	Open
R708	2.72	0.17	0.27	Open	Open
R709	10.88	0.70	3.27	Open	Open
R710	8.16	0.52	1.94	Open	Open
R711	5.44	0.35	1.21	Open	Open
R712	2.72	0.17	0.27	Open	Open
R713	2.72	0.37	1.66	Open	Open
R714	2.72	0.37	1.66	Open	Open
R715	2.72	0.37	1.66	Open	Open
R716	2.72	0.37	1.66	Open	Open
R626	27.20	0.89	30.21	Open	Open
R717	5.44	0.35	1.40	Open	Open
R718	-2.72	0.37	1.66	Open	Open
R719	2.72	0.17	0.27	Open	Open
R720	21.76	0.71	2.25	Open	Open
R721	19.04	0.62	1.77	Open	Open
R722	16.32	0.53	1.34	Open	Open
R723	13.60	0.44	0.96	Open	Open
R724	10.88	0.70	3.54	Open	Open
R725	8.16	0.52	1.94	Open	Open
R726	8.16	0.52	2.49	Open	Open
R727	5.44	0.35	0.94	Open	Open
R728	2.72	0.17	0.27	Open	Open
R729	2.72	0.37	1.66	Open	Open
R730	2.72	0.37	1.66	Open	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R731	2.72	0.37		1.66	Open
R732	2.72	0.37		1.66	Open
R733	2.72	0.37		1.66	Open
R734	2.72	0.37		1.66	Open
R735	2.72	0.37		1.66	Open
R736	46.24	1.51		33.62	Open
R737	27.20	1.74		58.45	Open
R738	24.48	1.57		14.43	Open
R739	10.88	0.70		3.79	Open
R740	8.16	0.52		1.94	Open
R741	5.44	0.35		0.94	Open
R742	2.72	0.17		0.29	Open
R743	2.72	0.17		0.27	Open
R744	13.60	0.87		4.90	Open
R745	10.88	0.70		3.27	Open
R746	8.16	0.52		1.94	Open
R747	5.44	0.35		0.94	Open
R748	2.72	0.17		0.27	Open
R749	2.72	0.37		1.66	Open
R750	2.72	0.37		1.66	Open
R751	2.72	0.37		1.66	Open
R752	2.72	0.37		1.66	Open
R753	2.72	0.37		1.66	Open
R754	2.72	0.37		1.66	Open
R755	2.72	0.37		1.66	Open
R756	2.72	0.37		1.66	Open
R757	2.72	0.37		1.66	Open
R758	2.72	0.37		1.66	Open
R759	2.72	0.37		1.66	Open
R760	2.72	0.37		1.66	Open
R761	19.04	0.62		1.77	Open
R762	16.32	0.53		1.34	Open
R763	13.60	0.44		0.96	Open
R764	10.88	0.70		7.55	Open
R765	8.16	0.52		1.94	Open
R766	5.44	0.35		1.12	Open
R767	2.72	0.17		0.27	Open
R768	2.72	0.17		0.27	Open
R769	61.77	1.02		4.86	Open
R770	59.05	0.98		2.67	Open
R771	23.69	0.39		0.51	Open
R772	20.97	0.35		0.41	Open
R773	18.25	0.30		0.32	Open
R774	15.53	0.26		0.24	Open
R775	12.81	0.21		0.17	Open
R776	10.09	0.17		0.11	Open
R777	7.37	0.12		0.06	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R778	4.65	0.08		0.03	Open
R779	-17.11	0.45		0.93	Open
R780	-19.83	0.52		1.10	Open
R781	-22.55	0.59		1.39	Open
R782	-25.27	0.66		1.70	Open
R783	-27.99	0.73		6.60	Open
R785	63.35	1.05		3.04	Open
R785	2.72	0.37		1.66	Open
R786	2.72	0.37		1.66	Open
R787	2.72	0.37		1.66	Open
R788	2.72	0.37		1.66	Open
R789	2.72	0.37		1.66	Open
R790	2.72	0.37		1.66	Open
R791	2.72	0.37		1.66	Open
R792	2.72	0.37		1.66	Open
R793	2.72	0.37		1.66	Open
R794	2.72	0.37		1.66	Open
R795	2.72	0.37		1.66	Open
R796	2.72	0.37		1.66	Open
R797	2.72	0.37		1.66	Open
R799	66.07	1.09		13.46	Open
R800	21.76	0.71		10.39	Open
R801	19.04	0.62		1.77	Open
R802	16.32	0.53		1.34	Open
R803	13.60	0.87		5.69	Open
R804	10.88	0.70		3.27	Open
R805	8.16	0.52		1.94	Open
R806	5.44	0.35		0.94	Open
R807	2.72	0.17		0.27	Open
R808	2.72	0.17		0.30	Open
R809	2.72	0.37		1.66	Open
R810	2.72	0.37		1.66	Open
R811	2.72	0.37		1.66	Open
R812	2.72	0.37		1.66	Open
R813	2.72	0.37		1.66	Open
R814	2.72	0.37		1.66	Open
R784	2.72	0.37		1.66	Open
R815	2.72	0.37		1.66	Open
R816	2.72	0.37		1.66	Open
R817	2.72	0.37		1.66	Open
R818	2.72	0.37		1.66	Open
R819	2.72	0.37		1.66	Open
R820	2.72	0.37		1.66	Open
R821	2.72	0.37		1.66	Open
R822	2.72	0.37		1.66	Open
R823	2.72	0.37		1.66	Open
R824	2.72	0.37		1.66	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R825	35.36	0.58	1.30	Open	Open
R826	32.64	0.54	0.90	Open	Open
R827	29.92	0.49	0.77	Open	Open
R828	27.20	0.71	2.65	Open	Open
R829	24.48	0.64	1.61	Open	Open
R830	21.76	0.57	1.30	Open	Open
R831	5.44	0.35	2.28	Open	Open
R832	16.32	0.53	1.42	Open	Open
R833	2.72	0.17	0.30	Open	Open
R834	13.60	0.44	0.96	Open	Open
R835	10.88	0.36	0.64	Open	Open
R836	8.16	0.52	2.11	Open	Open
R837	5.44	0.35	0.94	Open	Open
R838	2.72	0.17	0.27	Open	Open
R839	35.36	0.92	3.56	Open	Open
R840	32.64	0.85	2.72	Open	Open
R841	29.92	0.78	2.32	Open	Open
R842	27.20	0.71	1.95	Open	Open
R843	24.48	0.64	1.61	Open	Open
R844	16.32	0.53	1.59	Open	Open
R845	13.60	0.87	5.99	Open	Open
R846	10.88	0.70	3.27	Open	Open
R847	8.16	0.52	1.94	Open	Open
R848	5.44	0.35	0.94	Open	Open
R849	2.72	0.17	0.27	Open	Open
R850	8.16	0.52	2.02	Open	Open
R851	5.44	0.35	0.94	Open	Open
R852	2.72	0.17	0.27	Open	Open
R853	2.72	0.37	1.66	Open	Open
R854	2.72	0.37	1.66	Open	Open
R855	2.72	0.37	1.66	Open	Open
R856	2.72	0.37	1.66	Open	Open
R857	2.72	0.37	1.66	Open	Open
R858	2.72	0.37	1.66	Open	Open
R859	2.72	0.37	1.66	Open	Open
R860	2.72	0.37	1.66	Open	Open
R861	2.72	0.37	1.66	Open	Open
R862	2.72	0.37	1.66	Open	Open
R863	2.72	0.37	1.66	Open	Open
R864	62.31	0.50	0.60	Open	Open
R865	0.00	0.00	0.00	Open	Open
R866	0.00	0.00	0.00	Open	Open
R867	0.00	0.00	0.00	Open	Open
R868	0.00	0.00	0.00	Open	Open
R869	0.00	0.00	0.00	Open	Open
R870	0.00	0.00	0.00	Open	Open
R871	0.00	0.00	0.00	Open	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R872	0.00	0.00	0.00	0.00	Open
R873	0.00	0.00	0.00	0.00	Open
R874	0.00	0.00	0.00	0.00	Open
R875	0.00	0.00	0.00	0.00	Open
R876	0.00	0.00	0.00	0.00	Open
R877	0.00	0.00	0.00	0.00	Open
R878	62.31	0.50	0.57	0.57	Open
R879	57.84	0.46	0.50	0.50	Open
R880	62.31	0.50	0.57	0.57	Open
R881	4.47	0.15	0.23	0.23	Open
R882	0.00	0.00	0.00	0.00	Open
R883	0.00	0.00	0.00	0.00	Open
R884	0.00	0.00	0.00	0.00	Open
R885	0.00	0.00	0.00	0.00	Open
R886	0.00	0.00	0.00	0.00	Open
R887	0.00	0.00	0.00	0.00	Open
R888	0.00	0.00	0.00	0.00	Open
R889	4.47	0.15	0.13	0.13	Open
R890	4.47	0.15	0.13	0.13	Open
R891	4.47	0.15	0.13	0.13	Open
R896	-4.47	0.15	0.35	0.35	Open
R897	-4.47	0.15	0.13	0.13	Open
R898	-4.47	0.15	0.13	0.13	Open
R899	-4.47	0.15	0.13	0.13	Open
R900	-4.47	0.15	0.13	0.13	Open
R901	-4.47	0.15	0.13	0.13	Open
R902	-4.47	0.15	0.13	0.13	Open
R903	51.39	0.41	0.40	0.40	Open
R904	-62.31	0.81	1.88	1.88	Open
R905	-62.31	0.81	1.65	1.65	Open
R906	-62.31	0.50	0.57	0.57	Open
R907	-51.39	0.41	0.40	0.40	Open
R908	0.00	0.00	0.00	0.00	Open
R909	0.00	0.00	0.00	0.00	Open
R910	0.00	0.00	0.00	0.00	Open
R911	0.00	0.00	0.00	0.00	Open
R912	10.92	0.14	0.55	0.55	Open
R913	10.92	0.14	0.07	0.07	Open
R914	0.00	0.00	0.00	0.00	Open
R915	10.92	0.14	0.07	0.07	Open
R916	10.92	0.14	0.07	0.07	Open
R917	10.92	0.14	0.07	0.07	Open
R918	10.92	0.14	0.07	0.07	Open
R919	10.92	0.14	0.07	0.07	Open
R920	10.92	0.14	0.07	0.07	Open
R921	10.92	0.14	0.07	0.07	Open
R922	10.92	0.14	0.07	0.07	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R923	0.00	0.00	0.00	0.00	Open
R924	0.00	0.00	0.00	0.00	Open
R925	0.00	0.00	0.00	0.00	Open
R926	0.00	0.00	0.00	0.00	Open
R927	0.00	0.00	0.00	0.00	Open
R928	0.00	0.00	0.00	0.00	Open
R929	0.00	0.00	0.00	0.00	Open
R930	-10.92	0.14	0.21	0.21	Open
R931	-10.92	0.14	0.07	0.07	Open
R932	-10.92	0.14	0.07	0.07	Open
R933	-10.92	0.14	0.07	0.07	Open
R934	-10.92	0.14	0.07	0.07	Open
R935	-10.92	0.14	0.07	0.07	Open
R936	-10.92	0.14	0.07	0.07	Open
R937	-10.92	0.14	0.07	0.07	Open
R938	-10.92	0.14	0.07	0.07	Open
R939	-10.92	0.14	0.07	0.07	Open
R940	-10.92	0.14	0.07	0.07	Open
R941	-10.92	0.14	0.07	0.07	Open
R942	-10.92	0.14	0.07	0.07	Open
R943	-10.92	0.14	0.07	0.07	Open
R944	-10.92	0.14	0.07	0.07	Open
R945	-10.92	0.14	0.07	0.07	Open
R946	-10.92	0.14	0.07	0.07	Open
R947	-10.92	0.14	0.07	0.07	Open
R948	-10.92	0.14	0.07	0.07	Open
R949	-10.92	0.14	0.07	0.07	Open
R950	-10.92	0.14	0.07	0.07	Open
R951	-10.92	0.14	0.07	0.07	Open
R952	-10.92	0.14	0.07	0.07	Open
R953	-10.92	0.14	0.07	0.07	Open
R954	0.00	0.00	0.00	0.00	Open
R955	0.00	0.00	0.00	0.00	Open
R956	0.00	0.00	0.00	0.00	Open
R957	0.00	0.00	0.00	0.00	Open
R958	0.00	0.00	0.00	0.00	Open
R959	0.00	0.00	0.00	0.00	Open
R960	0.00	0.00	0.00	0.00	Open
R961	0.00	0.00	0.00	0.00	Open
R962	0.00	0.00	0.00	0.00	Open
R963	0.00	0.00	0.00	0.00	Open
R964	0.00	0.00	0.00	0.00	Open
R965	0.00	0.00	0.00	0.00	Open
R966	0.00	0.00	0.00	0.00	Open
R967	0.00	0.00	0.00	0.00	Open
R968	0.00	0.00	0.00	0.00	Open
R969	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R970	0.00	0.00	0.00	0.00	Open
R971	0.00	0.00	0.00	0.00	Open
R972	0.00	0.00	0.00	0.00	Open
R973	0.00	0.00	0.00	0.00	Open
R974	0.00	0.00	0.00	0.00	Open
R975	0.00	0.00	0.00	0.00	Open
R976	0.00	0.00	0.00	0.00	Open
R977	0.00	0.00	0.00	0.00	Open
R978	0.00	0.00	0.00	0.00	Open
R979	0.00	0.00	0.00	0.00	Open
R980	0.00	0.00	0.00	0.00	Open
R981	0.00	0.00	0.00	0.00	Open
R982	0.00	0.00	0.00	0.00	Open
R983	0.00	0.00	0.00	0.00	Open
R984	0.00	0.00	0.00	0.00	Open
R985	0.00	0.00	0.00	0.00	Open
R986	0.00	0.00	0.00	0.00	Open
R987	0.00	0.00	0.00	0.00	Open
R988	0.00	0.00	0.00	0.00	Open
R989	0.00	0.00	0.00	0.00	Open
R990	0.00	0.00	0.00	0.00	Open
R991	0.00	0.00	0.00	0.00	Open
R992	0.00	0.00	0.00	0.00	Open
R993	0.00	0.00	0.00	0.00	Open
R994	0.00	0.00	0.00	0.00	Open
R995	0.00	0.00	0.00	0.00	Open
R996	0.00	0.00	0.00	0.00	Open
R997	0.00	0.00	0.00	0.00	Open
R998	0.00	0.00	0.00	0.00	Open
R999	0.00	0.00	0.00	0.00	Open
R1000	0.00	0.00	0.00	0.00	Open
R1001	0.00	0.00	0.00	0.00	Open
R1002	0.00	0.00	0.00	0.00	Open
R1003	0.00	0.00	0.00	0.00	Open
R892	0.00	0.00	0.00	0.00	Open
R893	0.00	0.00	0.00	0.00	Open
R894	0.00	0.00	0.00	0.00	Open
R895	0.00	0.00	0.00	0.00	Open
R1004	0.00	0.00	0.00	0.00	Open
R1005	0.00	0.00	0.00	0.00	Open
R1006	0.00	0.00	0.00	0.00	Open
R1007	0.00	0.00	0.00	0.00	Open
R1008	0.00	0.00	0.00	0.00	Open
R1009	0.00	0.00	0.00	0.00	Open
R1010	0.00	0.00	0.00	0.00	Open
R1011	0.00	0.00	0.00	0.00	Open
R1012	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1013	0.00	0.00	0.00	0.00	Open
R1014	0.00	0.00	0.00	0.00	Open
R1015	0.00	0.00	0.00	0.00	Open
R1016	0.00	0.00	0.00	0.00	Open
R1017	0.00	0.00	0.00	0.00	Open
R1018	0.00	0.00	0.00	0.00	Open
R1019	0.00	0.00	0.00	0.00	Open
R1020	0.00	0.00	0.00	0.00	Open
R1021	0.00	0.00	0.00	0.00	Open
R1022	0.00	0.00	0.00	0.00	Open
R1023	0.00	0.00	0.00	0.00	Open
R1024	0.00	0.00	0.00	0.00	Open
R1025	0.00	0.00	0.00	0.00	Open
R1026	0.00	0.00	0.00	0.00	Open
R1027	0.00	0.00	0.00	0.00	Open
R1028	0.00	0.00	0.00	0.00	Open
R1029	0.00	0.00	0.00	0.00	Open
R1030	0.00	0.00	0.00	0.00	Open
R1031	0.00	0.00	0.00	0.00	Open
R1032	0.00	0.00	0.00	0.00	Open
R1033	0.00	0.00	0.00	0.00	Open
R1034	0.00	0.00	0.00	0.00	Open
R1035	0.00	0.00	0.00	0.00	Open
R1036	0.00	0.00	0.00	0.00	Open
R1037	0.00	0.00	0.00	0.00	Open
R1038	0.00	0.00	0.00	0.00	Open
R1039	0.00	0.00	0.00	0.00	Open
R1040	0.00	0.00	0.00	0.00	Open
R1041	0.00	0.00	0.00	0.00	Open
R1042	0.00	0.00	0.00	0.00	Open
R1043	0.00	0.00	0.00	0.00	Open
R1044	0.00	0.00	0.00	0.00	Open
R1045	0.00	0.00	0.00	0.00	Open
R1046	0.00	0.00	0.00	0.00	Open
R1047	0.00	0.00	0.00	0.00	Open
R1048	0.00	0.00	0.00	0.00	Open
R1049	0.00	0.00	0.00	0.00	Open
R1050	0.00	0.00	0.00	0.00	Open
R1051	0.00	0.00	0.00	0.00	Open
R1052	0.00	0.00	0.00	0.00	Open
R1053	0.00	0.00	0.00	0.00	Open
R1054	0.00	0.00	0.00	0.00	Open
R1055	0.00	0.00	0.00	0.00	Open
R1056	0.00	0.00	0.00	0.00	Open
R1057	0.00	0.00	0.00	0.00	Open
R1058	0.00	0.00	0.00	0.00	Open
R1059	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1060	0.00	0.00	0.00	0.00	Open
R1061	0.00	0.00	0.00	0.00	Open
R1062	0.00	0.00	0.00	0.00	Open
R1063	0.00	0.00	0.00	0.00	Open
R1064	0.00	0.00	0.00	0.00	Open
R1065	0.00	0.00	0.00	0.00	Open
R1066	0.00	0.00	0.00	0.00	Open
R1067	0.00	0.00	0.00	0.00	Open
R1068	0.00	0.00	0.00	0.00	Open
R1069	0.00	0.00	0.00	0.00	Open
R1070	0.00	0.00	0.00	0.00	Open
R1071	0.00	0.00	0.00	0.00	Open
R1072	0.00	0.00	0.00	0.00	Open
R1073	0.00	0.00	0.00	0.00	Open
R1074	0.00	0.00	0.00	0.00	Open
R1075	0.00	0.00	0.00	0.00	Open
R1076	0.00	0.00	0.00	0.00	Open
R1077	0.00	0.00	0.00	0.00	Open
R1079	0.00	0.00	0.00	0.00	Open
R1080	0.00	0.00	0.00	0.00	Open
R1082	0.00	0.00	0.00	0.00	Open
R1083	0.00	0.00	0.00	0.00	Open
R1084	0.00	0.00	0.00	0.00	Open
R1085	0.00	0.00	0.00	0.00	Open
R1086	0.00	0.00	0.00	0.00	Open
R1088	0.00	0.00	0.00	0.00	Open
R1089	0.00	0.00	0.00	0.00	Open
R1090	0.00	0.00	0.00	0.00	Open
R1091	0.00	0.00	0.00	0.00	Open
R1092	0.00	0.00	0.00	0.00	Open
R1093	0.00	0.00	0.00	0.00	Open
R1095	0.00	0.00	0.00	0.00	Open
R1096	0.00	0.00	0.00	0.00	Open
R1097	0.00	0.00	0.00	0.00	Open
R1099	0.00	0.00	0.00	0.00	Open
R1100	0.00	0.00	0.00	0.00	Open
R1101	0.00	0.00	0.00	0.00	Open
R1102	0.00	0.00	0.00	0.00	Open
R1103	0.00	0.00	0.00	0.00	Open
R1104	0.00	0.00	0.00	0.00	Open
R1105	0.00	0.00	0.00	0.00	Open
R1106	0.00	0.00	0.00	0.00	Open
R1107	0.00	0.00	0.00	0.00	Open
R1108	0.00	0.00	0.00	0.00	Open
R1109	0.00	0.00	0.00	0.00	Open
R1110	0.00	0.00	0.00	0.00	Open
R1111	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1112	0.00	0.00	0.00	0.00	Open
R1113	0.00	0.00	0.00	0.00	Open
R1114	0.00	0.00	0.00	0.00	Open
R1115	0.00	0.00	0.00	0.00	Open
R1116	0.00	0.00	0.00	0.00	Open
R1117	0.00	0.00	0.00	0.00	Open
R1118	0.00	0.00	0.00	0.00	Open
R1119	0.00	0.00	0.00	0.00	Open
R1120	0.00	0.00	0.00	0.00	Open
R1121	0.00	0.00	0.00	0.00	Open
R1122	0.00	0.00	0.00	0.00	Open
R1123	0.00	0.00	0.00	0.00	Open
R1124	0.00	0.00	0.00	0.00	Open
R1125	0.00	0.00	0.00	0.00	Open
R1126	0.00	0.00	0.00	0.00	Open
R1127	0.00	0.00	0.00	0.00	Open
R1128	0.00	0.00	0.00	0.00	Open
R1129	0.00	0.00	0.00	0.00	Open
R1130	0.00	0.00	0.00	0.00	Open
R1131	0.00	0.00	0.00	0.00	Open
R1132	0.00	0.00	0.00	0.00	Open
R1133	0.00	0.00	0.00	0.00	Open
R1134	0.00	0.00	0.00	0.00	Open
R1135	0.00	0.00	0.00	0.00	Open
R1136	0.00	0.00	0.00	0.00	Open
R1137	0.00	0.00	0.00	0.00	Open
R1138	0.00	0.00	0.00	0.00	Open
R1139	0.00	0.00	0.00	0.00	Open
R1140	0.00	0.00	0.00	0.00	Open
R1141	0.00	0.00	0.00	0.00	Open
R1142	0.00	0.00	0.00	0.00	Open
R1143	0.00	0.00	0.00	0.00	Open
R1144	0.00	0.00	0.00	0.00	Open
R1145	0.00	0.00	0.00	0.00	Open
R1146	0.00	0.00	0.00	0.00	Open
R1147	0.00	0.00	0.00	0.00	Open
R1148	0.00	0.00	0.00	0.00	Open
R1149	0.00	0.00	0.00	0.00	Open
R1150	0.00	0.00	0.00	0.00	Open
R1151	0.00	0.00	0.00	0.00	Open
R1152	0.00	0.00	0.00	0.00	Open
R1153	0.00	0.00	0.00	0.00	Open
R1154	0.00	0.00	0.00	0.00	Open
R1155	0.00	0.00	0.00	0.00	Open
R1156	0.00	0.00	0.00	0.00	Open
R1157	0.00	0.00	0.00	0.00	Open
R1158	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1159	0.00	0.00	0.00	0.00	Open
R1162	0.00	0.00	0.00	0.00	Open
R1163	0.00	0.00	0.00	0.00	Open
R1164	0.00	0.00	0.00	0.00	Open
R1165	0.00	0.00	0.00	0.00	Open
R1166	0.00	0.00	0.00	0.00	Open
R1167	0.00	0.00	0.00	0.00	Open
R1168	0.00	0.00	0.00	0.00	Open
R1169	0.00	0.00	0.00	0.00	Open
R1170	0.00	0.00	0.00	0.00	Open
R1171	0.00	0.00	0.00	0.00	Open
R1172	0.00	0.00	0.00	0.00	Open
R1173	0.00	0.00	0.00	0.00	Open
R1174	0.00	0.00	0.00	0.00	Open
R1175	0.00	0.00	0.00	0.00	Open
R1176	0.00	0.00	0.00	0.00	Open
R1177	0.00	0.00	0.00	0.00	Open
R1178	0.00	0.00	0.00	0.00	Open
R1179	0.00	0.00	0.00	0.00	Open
R1180	0.00	0.00	0.00	0.00	Open
R1181	0.00	0.00	0.00	0.00	Open
R1182	0.00	0.00	0.00	0.00	Open
R1183	0.00	0.00	0.00	0.00	Open
R1184	0.00	0.00	0.00	0.00	Open
R1185	0.00	0.00	0.00	0.00	Open
R1186	0.00	0.00	0.00	0.00	Open
R1187	0.00	0.00	0.00	0.00	Open
R1188	0.00	0.00	0.00	0.00	Open
R1189	0.00	0.00	0.00	0.00	Open
R1190	0.00	0.00	0.00	0.00	Open
R1191	0.00	0.00	0.00	0.00	Open
R1192	0.00	0.00	0.00	0.00	Open
R1193	0.00	0.00	0.00	0.00	Open
R1194	0.00	0.00	0.00	0.00	Open
R1195	0.00	0.00	0.00	0.00	Open
R1196	0.00	0.00	0.00	0.00	Open
R1197	0.00	0.00	0.00	0.00	Open
R1198	0.00	0.00	0.00	0.00	Open
R1199	0.00	0.00	0.00	0.00	Open
R1200	0.00	0.00	0.00	0.00	Open
R1201	0.00	0.00	0.00	0.00	Open
R1202	0.00	0.00	0.00	0.00	Open
R1203	0.00	0.00	0.00	0.00	Open
R1204	0.00	0.00	0.00	0.00	Open
R1205	0.00	0.00	0.00	0.00	Open
R1206	0.00	0.00	0.00	0.00	Open
R1207	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1208	2.72	0.37	1.66	Open
R1209	2.72	0.37	1.66	Open
R1210	2.72	0.37	1.66	Open
R1211	2.72	0.37	1.66	Open
R1212	2.72	0.37	1.66	Open
R1213	2.72	0.37	1.66	Open
R1214	2.72	0.37	1.66	Open
R1215	2.72	0.37	1.66	Open
R1216	2.72	0.37	1.66	Open
R1217	2.72	0.37	1.66	Open
R1218	10.88	0.70	9.81	Open
R1219	5.44	0.35	0.94	Open
R1220	2.72	0.17	0.27	Open
R1221	2.72	0.37	1.66	Open
R1222	5.44	0.35	1.24	Open
R1223	2.72	0.37	1.66	Open
R1224	2.72	0.37	1.66	Open
R1225	10.88	0.70	19.75	Open
R1226	8.16	0.52	1.94	Open
R1227	5.44	0.35	0.94	Open
R1228	2.72	0.17	0.27	Open
R1229	2.72	0.17	0.54	Open
R1230	2.72	0.37	1.66	Open
R1231	2.72	0.37	1.66	Open
R1	2.72	0.37	1.66	Open
R2	2.72	0.37	1.66	Open
R1232	2.72	0.37	1.66	Open
R1233	2.72	0.37	1.66	Open
R430	40.80	0.53	0.76	Open
R1234	0.00	0.00	0.00	Open
R1235	0.00	0.00	0.00	Open
R1236	0.00	0.00	0.00	Open
R1237	0.00	0.00	0.00	Open
R1238	0.00	0.00	0.00	Open
R3187	0.00	0.00	0.00	Open
R1239	0.00	0.00	0.00	Open
R1240	0.00	0.00	0.00	Open
R1241	0.00	0.00	0.00	Open
R1078	130.46	0.46	0.31	Open
R1081	192.77	1.53	8.18	Open
P1	0.00	0.00	0.00	Closed Pump
P2	150.05	0.00	-79.98	Open Pump
P3	150.05	0.00	-79.98	Open Pump
P4	150.05	0.00	-79.98	Open Pump
P5	150.05	0.00	-79.98	Open Pump
P6	150.05	0.00	-79.98	Open Pump
P7	150.05	0.00	-79.98	Open Pump

2.6 CONCLUSIONI

Il dimensionamento della rete di distribuzione risulta verificato e corretto alla luce dei risultati sopra riportati.

In particolare nell'ipotesi di funzionamento "a" la rete risulta ben bilanciata e non si evidenziano particolari perdite di carico. Considerando una prevalenza in centrale pari a 80 m si verifica che nei nodi periferici le pressioni di esercizio calcolate sono largamente sopra il limite minimo garantito di 4,5 atm.

Si è ipotizzata inoltre una suddivisione della rete in due semidistretti, di seguito riportati, per i quali è stato verificato il modello nelle condizioni descritte nell'ipotesi di funzionamento "b" e "c". Anche in tali configurazioni, nei rami periferici, sui quali è stato simulato il funzionamento turnato, risultano comunque pressioni di esercizio superiori al limite minimo di 4,5 atm :

- Configurazione b - semicomparto nord : nodo Z1020 - $p = 45.20$ m;
- Configurazione c - semicomparto sud : nodo Z496 - $p = 45.00$ m;

INDICE

1. CALCOLI E VERIFICHE IDRAULICHE	2
1.1 PREMESSA.....	2
1.2 DISTRETTO IRRIGUO “BONCELLINO”	3
1.3 IPOTESI DI FUNZIONAMENTO A	29
1.4 IPOTESI DI FUNZIONAMENTO B	53
1.5 IPOTESI DI FUNZIONAMENTO C	77
1.6 IPOTESI DI FUNZIONAMENTO D	101
1.7 CONCLUSIONI.....	125
2. CALCOLI E VERIFICHE IDRAULICHE	127
2.1 PREMESSA.....	127
2.2 DISTRETTO IRRIGUO “VILLA PRATI”	128
2.3 IPOTESI DI FUNZIONAMENTO A	174
2.4 IPOTESI DI FUNZIONAMENTO B	217
2.5 IPOTESI DI FUNZIONAMENTO C	260
2.6 CONCLUSIONI.....	303