NEW APPLICATION ORIGINAL

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Phoenix, Arizona 85012
Telephone (602) 916-5000

Attorneys for New River Utility Company

W-01737A-04-0502

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF NEW RIVER UTILITY COMPANY FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY FOR WATER SERVICE.	DOCKET NO. W-01737A - **APPLICATION FOR EXTENSION OF CERTIFICATE OF CONVENIENCE AND NECESSITY**

New River Utility Company, ("Applicant"), an Arizona public service corporation, hereby applies for an Order approving an extension of its existing Certificate of Convenience and Necessity ("CC&N") for water service to include an area encompassing two projects known as Riverstone Estates ("Riverstone") and Cody Farms (collectively the "Developments"). In support of this Application, Applicant states as follows:

1. Applicant is a public service corporation engaged in providing water for public purposes within portions of Maricopa County, Arizona. Applicant was first granted its CC&N in Decision No. 33131 (May 24, 1961) and Decision No. 33354 (August 15, 1961), and currently serves approximately 2,575 water utility customers. The area served by Applicant contains both residential and commercial properties.

2. Columbia Property Development, LLC and Cody Farms, Inc. ("Developers") have requested that Applicant extend water utility service to the Developments. A copy of the request for service is attached hereto as Exhibit 1. Riverstone encompasses approximately 33 acres, which will consist of 101 residential units. Cody Farms encompasses approximately 20 acres, and will consist of 66 residential units. Legal descriptions for the areas covered by this

Application are attached hereto as Exhibit 2.

3. Applicant's management contact is Robert Fletcher, whose business address is 7839 West Deer Valley Road, Peoria, Arizona 85382. The telephone number is (623) 561-1848.

4. Applicant's operator, certified by the Arizona Department of Environmental Quality, is Jack Muir (Jack Muir Enterprises, Inc.), whose business address is P.O. Box 629, Cascade, Idaho 83611. The local telephone number is (623) 849-3720.

5. Applicant's attorneys are Fennemore Craig, whose address is 3003 North Central Avenue, Suite 2600, Phoenix, Arizona 85012-2913. The individual attorney responsible for this application is Jay L. Shapiro. Mr. Shapiro's telephone number is (602) 916-5366. **All Data Requests or other Requests for Information should be directed to Mr. Robert Fletcher, with a copy to Mr. Shapiro's attention, on behalf of New River Utility Company**.

6. A Certificate of Good Standing for New River Utility Company is attached hereto as Exhibit 3.

7. The newly acquired customers in the areas covered by the application will receive water service subject to Applicant's current rates and charges for utility service, which were approved in Decision No. 65134 (August 22, 2002).

8. A service area map indicating Applicant's present water CC&N, and the areas requested by this Application, is attached hereto as Exhibit 4.

9. Applicant's balance sheet and profit and loss information for the 12-month period ending 2003 is attached hereto as Exhibit 5.

10. A Master Water Design report is attached hereto as Exhibit 6.

11. A copy of Applicant's most recent Annual Report (2003) is attached hereto as Exhibit 7.

12. The estimated numbers of residential customers to be served in each of the first five years of water utility service to the areas covered by this Application are as follows:

///

	Riverstone	Cody Farms	Combined
1st Year:	32	66	98
2nd Year:	80	66	146
3rd Year:	101	66	167
4th Year:	101	66	167
5th Year:	101	66	167

13. Applicant's estimated annual operating revenue and operating expenses for each of the first five years of operation in the new area covered by this Application are as follows:

Operating Revenue	Operating Expenses
1st Year - $21,207	1st Year - $17,945
2nd Year - $47,902	2nd Year - $45,849
3rd Year - $62,597	3rd Year - $61,064
4th Year - $67,756	4th Year - $65,220
5th Year – $67,756	5th Year - $65,481

14. Applicant's total estimated cost to construct utility facilities to serve customers in the area covered by this Application is approximately $2,703 per service connection. The plant cost projections, including service meters, by year for the next five (5) years are as follows:

Plant Cost Projection

1st Year: $417,950
2nd Year: $451,425
3rd Year: $451,425
4th Year: $451,425
5th Year: $451,425

15. The water facilities needed to serve the area covered by this Application will be constructed as needed to provide service to customers, and shall consist of two phases. The starting and completion dates for the construction of facilities at the Development are approximately April 2004 and April 2005, respectively.

16. The construction of additional utility facilities needed to serve the area covered by this Application will be financed by Advances in Aid of Construction pursuant to the terms of any main extension agreement between Applicant and Developers.

17. Applicant currently has an Operating Agreement with the City of Peoria to provide water service near the areas requested by this Application, and is attached hereto as Exhibit 8.

18. The construction of the additional utility facilities needed to serve the area covered by this Application will be financed by Advances in Aid of Construction pursuant to the terms of any main extension agreement between Applicant and Developers. A copy of the water main extension agreements are attached hereto as Exhibit 9.

19. The Maricopa County Environmental Services Division ("MCESD") will issue certain Approvals to Construct facilities to serve the requested extension area. These Approvals to Construct will be provided to the Commission once they are issued.

20. Notice of this Application will be given by publication in a newspaper of general circulation as required by the Commission. Proof of publication will be filed with the Commission.

21. Applicant has a pending request to extend its CC&N to include the Arrowhead Ranch Office Park development, which is adjacent to the Developments. Docket No. W-01737A–04-0274. A further extension of Applicant's CC&N would be consistent with promoting orderly growth in Maricopa County and the City of Peoria in areas adjacent to Applicant's service territory, and Applicant is in the best position to extend and provide water service to the Developments at this time. Additionally, expansion of service will benefit Applicant's existing customers by allowing the cost of providing water service to be spread over a larger customer base to achieve greater economies of scale. As a result, Applicant maintains that this Application is in the public interest and should be granted.

22. To the best of its knowledge and belief, Applicant is currently in compliance with all regulatory requirements applicable to its provision of water utility service in Arizona, including all applicable orders, rules and regulations of the Commission, ADEQ and MCESD

.

WHEREFORE, Applicant respectfully requests the following:

A. That the Commission proceed to consider and act upon this Application as timely as possible and to schedule a hearing, if necessary, on this matter;

B. That upon completion of said hearing that the Commission enter an Order approving the extension of New River Utility Company's current Certificate of Convenience and Necessities to include the additional geographic areas requested by this Application as shown in Exhibit 4;

C. That the Commission grant such other and further relief as may be appropriate under the circumstances herein.

DATED this 9th day of July, 2004.

FENNEMORE CRAIG, P.C.

By: _____
Jay L. Shapiro
Patrick J. Black
Attorneys for New River Utility Company

ORIGINAL and 13 copies filed this 9th day of July, 2004:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

COPY delivered this 9th day of July, 2004:

Jim Fisher, Executive Consultant
Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

COPY mailed this 9th day of July, 2004:

Richard Cannon, Director
Columbia Property Development, LLC
17797 North Perimeter, Suite 115
Scottsdale, Arizona 85255

By: _____

1556972.1/69300.022

EXHIBIT 1

COLUMBIA
COMMUNITIES

JAY SHAPIRO
APR 0 3 2004
ACTION _____

April 2, 2004

Mr. Jay Shapiro
FENNEMORE CRAIG
3003 N. Central Avenue, Suite 2600
Phoenix, Arizona 85012-2913

Re: Will Serve Letter

Dear Jay:

Columbia Property Development, LLC is purchasing the 27.27-Acre parcel that will be developed into a 101 lot single-family subdivision known as RIVERSTONE ESTATES.

This letter is to serve as our official request for service from the New River Utility Company that was authorized to provide service through an Agreement between the Utility and the City of Peoria.

I have included the following information to support this request:

- Copy of Preliminary Plat
- Site map showing future service to:

Residential	Cody Farms	66 lots
	RIVERSTONE ESTATES	101 lots
Commercial	C-1 Rencor	8.89 Acres
	C-2 Deer Valley Service	19.45 Acres
	C-3 Cody Farms	3.45 Acres
Church Site		4.21 Acres

- Builder Back Ground

We are projecting a need for water by October/November 2004 when we start construction of our models, with first buyer occupancy projected for 1st quarter of 2005.

If you need additional information from me please call.

Sincerely,

Dick Cannon
Director of Forward Planning

Attachments:

17797 North Perimeter • Suite 115 • Scottsdale, Arizona 85255
480.473.4696 • Fax 480.473.1686

EXHIBIT 2

Legal Description Cody Farms

FIRST AMENDED
NO. 265-940-1235330

The West half of the Southwest quarter of the Northwest quarter of the Northeast quarter of Section 23, Township 4 North, Range 1 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona

Legal Description of Columbia Parcel

PARCEL NO. 4:
THE EAST HALF OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 23, TOWNSHIP 4 NORTH, RANGE 1 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT THE EAST 25.00 FEET THEREOF; AND

EXCEPT ALL COAL, OIL, GAS AND OTHER MINERAL DEPOSITS AS RESERVED IN PATENT FROM THE UNITED STATES OF AMERICA RECORDED APRIL 22, 1959 IN DOCKET 2835, PAGE 562.

PARCEL NO. 12:
A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 23, TOWNSHIP 4 NORTH, RANGE 1 EAST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTH QUARTER CORNER OF SAID SECTION 23;
THENCE SOUTH 00 DEGREES 12 MINUTES 46 SECONDS EAST (Record), SOUTH 00 DEGREES 09 MINUTES 34 SECONDS WEST (Record per plat recorded at Book 447, Page 31) ALONG THE MID-SECTION LINE, A DISTANCE OF 1318.75 FEET (Record), 1319.00 (Record per plat recorded Book 447, Page 31);
THENCE NORTH 89 DEGREES 24 MINUTES 42 SECONDS EAST (Record), NORTH 89 DEGREES 45 MINUTES 16 SECONDS EAST (Measured) A DISTANCE OF 200.00 FEET TO THE POINT OF BEGINNING;
THENCE NORTH 89 DEGREES 24 MINUTES 41 SECONDS EAST (Record), NORTH 89 DEGREES 45 MINUTES 16 SECONDS EAST (Measured) A DISTANCE OF 1129.59 FEET (Record), 1129.64 FEET (Measured);
THENCE SOUTH 00 DEGREES 02 MINUTES 55 SECONDS EAST (Record), SOUTH 00 DEGREES 14 MINUTES 59 SECONDS WEST (Measured) A DISTANCE OF 1321.77 FEET (Record), 1321.33 FEET (Measured) TO THE EAST-WEST MID-SECTION LINE;
THENCE SOUTH 89 DEGREES 32 MINUTES 28 SECONDS WEST (Record), SOUTH 89 DEGREES 52 MINUTES 06 SECONDS WEST (Measured) ALONG THE SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 1125.79 FEET; (Record), 1126.74 FEET (Measured);
THENCE NORTH 00 DEGREES 12 MINUTES 46 SECONDS WEST (Record), NORTH 00 DEGREES 07 MINUTES 28 SECONDS EAST (Measured) A DISTANCE OF 1318.75 FEET (Record), 1319.07 FEET (Measured) TO THE TRUE POINT OF BEGINNING.

EXCEPT ALL OIL GAS AND OTHER HYDROCARBON SUBSTANCES, HELIUM OR OTHER SUBSTANCES OF A GASEOUS NATURE, GEOTHERMAL RESOURCES, COAL, METALS, MINERALS, FOSSILS, FERTILIZER OF EVERY NAME AND DESCRIPTION AND EXCEPT ALL MATERIALS WHICH MAY BE ESSENTIAL TO PRODUCTION OF FISSIONABLE MATERIAL AS RESERVED IN ARIZONA REVISED STATUTES; AND

EXCEPT COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 23;
THENCE SOUTH 00 DEGREES 19 MINUTES 06 SECONDS WEST (Record), SOUTH 00 DEGREES 21 MINUTES 25 SECONDS WEST (Measured) AND ALONG THE EAST LINE OF SAID SECTION 23, A DISTANCE OF 1323.96 FEET (Record), 1323.985 FEET (Measured);
THENCE SOUTH 89 DEGREES 43 MINUTES 48 SECONDS WEST (Record), SOUTH 89 DEGREES 45 MINUTES 16 SECONDS WEST (Measured) AND ALONG THE NORTH LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 23, A DISTANCE OF 1329.18 FEET (Record), 1329.24 FEET (Measured);
THENCE SOUTH 00 DEGREES 12 MINUTES 32 SECONDS WEST (Record), SOUTH 00 DEGREES 14 MINUTES 59 SECONDS WEST (Measured) AND ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 23, A DISTANCE OF 314.79 FEET TO THE TRUE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL;
THENCE CONTINUING SOUTH 00 DEGREES 12 MINUTES 32 SECONDS WEST (Record), SOUTH 00 DEGREES 14 MINUTES 59 SECONDS WEST (Measured)AND ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 23, A DISTANCE OF 1006.97 FEET (Record), 1006.54 FEET (Measured);
THENCE SOUTH 89 DEGREES 49 MINUTES 58 SECONDS WEST (Record), SOUTH 89 DEGREES 52 MINUTES 06 SECONDS WEST (Measured) AND ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 23, A DISTANCE OF 447.31 FEET;
THENCE NORTH 08 DEGREES 11 MINUTES 03 SECONDS EAST (Record), NORTH 08 DEGREES 13 MINUTES 11 SECONDS EAST (Measured), A DISTANCE OF 204.01 FEET;
THENCE NORTH 27 DEGREES 54 MINUTES 52 SECONDS EAST (Record), NORTH 27 DEGREES 57 MINUTES 00 SECONDS EAST (Measured), A DISTANCE OF 392.55 FEET;
THENCE NORTH 27 DEGREES 49 MINUTES 08 SECONDS EAST (Record), NORTH 27 DEGREES 51 MINUTES 16 SECONDS EAST (Measured) A DISTANCE OF 367.28 FEET;
THENCE NORTH 26 DEGREES 22 MINUTES 30 SECONDS EAST (Record), NORTH 26 DEGREES 30 MINUTES 59 SECONDS EAST (Measured), A DISTANCE OF 150.27 FEET (Record), 149.93 FEET (Measured) TO THE TRUE POINT OF BEGINNING.

EXHIBIT 3

STATE OF ARIZONA

Office of the
CORPORATION COMMISSION

CERTIFICATE OF GOOD STANDING

To all to whom these presents shall come, greeting:

I, Brian C. McNeil, Executive Secretary of the Arizona Corporation Commission, do hereby certify that

******NEW RIVER UTILITY COMPANY******

a domestic corporation organized under the laws of the State of Arizona, did incorporate on March 26, 1959.

I further certify that according to the records of the Arizona Corporation Commission, as of the date set forth hereunder, the said corporation is not administratively dissolved for failure to comply with the provisions of the Arizona Business Corporation Act; that its most recent Annual Report, subject to the provisions of A.R.S. sections 10-122, 10-123, 10-125 & 10-1622, has been delivered to the Arizona Corporation Commission for filing; and that the said corporation has not filed Articles of Dissolution as of the date of this certificate.

This certificate relates only to the legal existence of the above named entity as of the date issued. This certificate is not to be construed as an endorsement, recommendation, or notice of approval of the entity's condition or business activities and practices.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the Arizona Corporation Commission. Done at Phoenix, the Capital, this 31st Day of March, 2004, A. D.

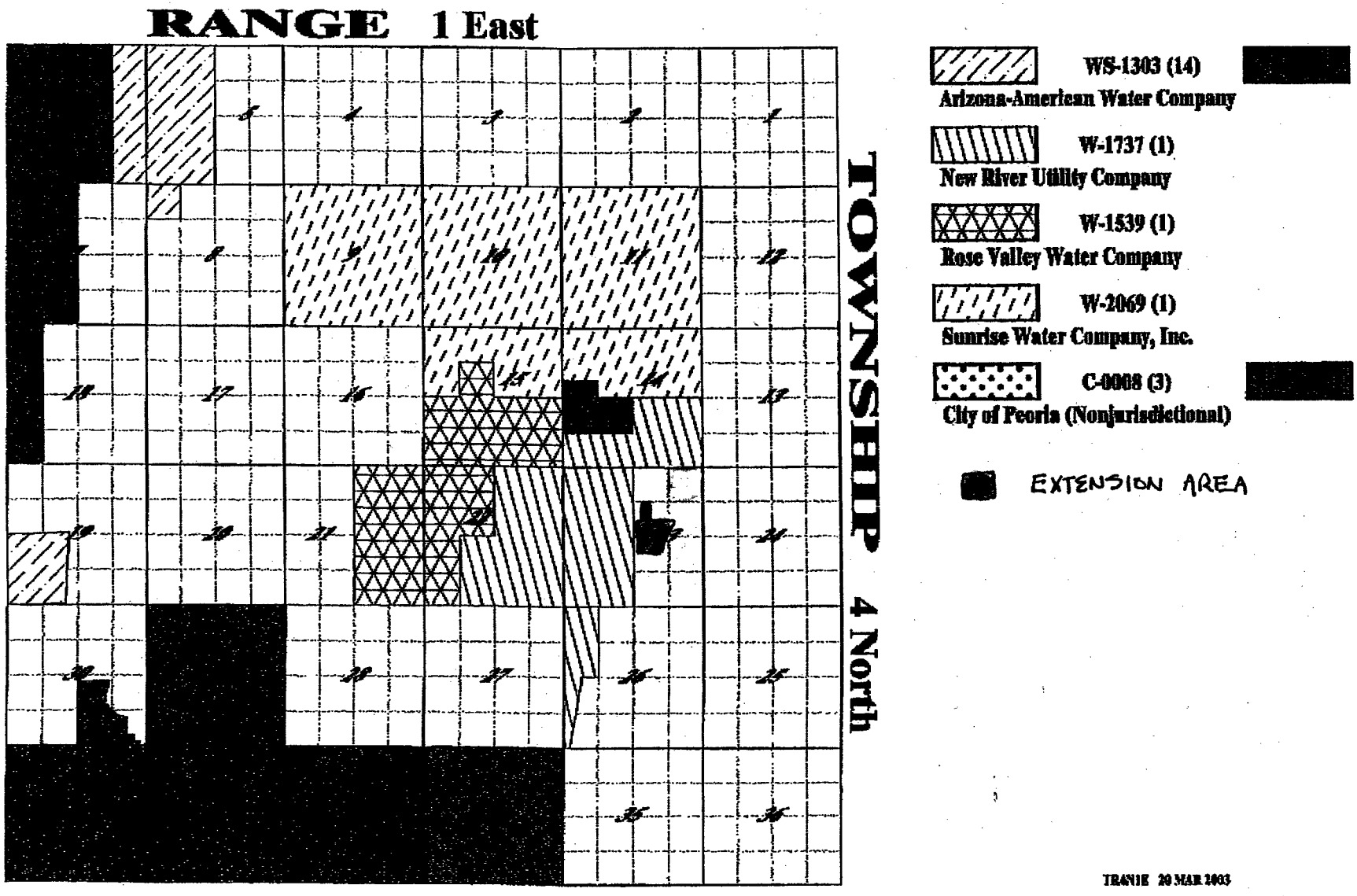
SEAL OF THE ARIZONA CORPORATION COMMISSION
DITAT DEUS
* 1912 *

Executive Secretary

By Pam Bedard

EXHIBIT 4

COUNTY: *Maricopa*



TRANIE 20 MAR 2003

EXHIBIT 5

Company name	New River Utility Company

EXHIBIT 5

STATEMENT OF NET INCOME

Acct. No.			
	OPERATING REVENUE		
461	Metered Water Revenue	$ 950,575	$ 1,220,733
460	Unmetered Revenue		3,060
474	Other Operating Revenue	$ 1,898	2,543
	TOTAL OPERATING REVENUE	$ 952,473	$ 1,226,336
	OPERATING EXPENSES		
601	Salaries & Wages	$ 131,924	$ 517,750
610	Purchased Water		
615	Purchased Pumping Power	156,516	122,204
618	Chemicals	4,509	2,509
620	Materials & Supplies:repairs and maintenance	17,772	24,310
621	Office Supplies and Expense	26,653	24,464
630	Outside Services	65,488	47,840
635	Water Testing	45,146	22,579
640	Rents	29,700	30,000
650	Transportation Expense		
650	Insurance - General Liability	12,330	17,761
665	Regulatory Commission Expense - Rate Case	12,201	12,145
675	Misc. Operating Expenses	3,080	5,074
403	Depreciation Expense	212,771	222,541
408.11	Taxes other Than income; property tax	6,500	10,482
	Property Taxes	17,327	28,017
409	Income Tax		
	TOTAL OPERATING EXPENSE	$ 741,918	$ 1,087,676
	OPERATING INCOME / (LOSS)	$ 210,555	$ 138,660
	OTHER INCOME/EXPENSE		
419	Interest Income		
421	Other Income		
426	Other Expense		
427	Interest Expense		
	TOTAL OTHER INCOME (EXPENSE)		
	NET INCOME / (LOSS)	$ 210,555	$ 138,660

$ (210,555)

COMPANY NAME	New River Utility Company

EXHIBIT 5

BALANCE SHEET

Acct. No.	ASSETS	BALANCE AT BEGINNING OF YEAR	BALANCE AT END OF YEAR
	CURRENT AND ACCRUED ASSETS		
131	Cash	$ 3,891	$ 156,720
134	Working Funds		
135	Temporary Cash		
141	Customer Accounts Receivable	31,760	33,821
151	Plant Materials and Supplies		
151	Materials & Supply Inventory		104,000
162	Prepayments		
174	Miscellaneous Current & Accrued Assets		
	TOTAL CURRENT AND ACCRUED ASSETS	$ 35,651	$ 294,541
	FIXED ASSETS		
101	Utility Plant	$ 4,754,796	$ 4,798,999
103	Property Held for Future Use		
105	Construction Work in Progress	-	
108	Accumulated Depreciation	(641,653)	(864,194)
121	Non-Utility Property		
122	Accumulated Depreciation-NonUtility		
	TOTAL FIXED ASSETS	$ 4,113,143	$ 3,934,805
	TOTAL ASSETS	$ 4,148,794	$ 4,229,346

COMPANY NAME	New River Utility Company

EXHIBIT 5

BALANCE SHEET

Acct No.	LIABILITIES	BALANCE AT BEGINNING OF YEAR	BALANCE AT END OF YEAR
	CURRENT LIABILITIES		
231	Accounts Payable	$ 239,833	$ 301,923
232	Notes Payable (Current Portion)		
234	Notes/Accounts Payable Associated companies		
235	Customer Deposits	$ 6,938	4,830
236	Accrued Taxes		
237	Accrued Interest		
241	Miscellaneous Current & Accrued Liabilities		
	TOTAL CURRENT LIABILITIES	$ 246,771	$ 306,753
	LONG-TERM DEBT(Over 12 months)		
224	Long-Term Notes and Bonds		
	DEFERRED CREDITS		
251	Unamortized Premium on Debt		
252	Advances in Aid of Construction	$ 3,320,397	$ 3,202,308
255	Accumulated Deferred Investment Tax Credits		
271	Contributions in Aid of Construction	-	
272	Less: Amortization of Contributions	-	
281	Accumulated Deferred Income Taxes	6,722	6,722
	TOTAL DEFERRED CREDITS	$ 3,327,119	$ 3,209,030
	TOTAL LIABILITIES	$ 3,573,890	$ 3,515,783
	CAPITAL ACCOUNTS		
201	Common Stock Issues	$ 100	$ 100
211	Other Paid in Capital	978,819	978,819
215	Retained Earnings	(404,016)	(265,356)
218	Proprietory Capital (Sole Props. and Partnerships)		
	TOTAL EQUITY	$ 574,903	$ 713,563
	TOTAL LIABLITIES AND EQUITY	$ 4,148,793	$ 4,229,346

EXHIBIT 6

POTABLE WATER REPORT
FOR RESIDENTIAL DEVELOPMENTS OF
CODY FARMS AND RIVERSTONE ESTATES

IN SUPPORT OF AN APPLICATION
FOR AN EXTENSION OF CERTIFICATE
OF CONVENIENCE AND NECESSITY

Prepared for:
New River Utility Company
PWS No. 07051
7839 West Deer Valley Road
Peoria, AZ 85382
Phone: 623-561-1848
Fax: 623-561-5831

Prepared by:
Ballinger Consultants, P.C.
P.O. Box 12187
Scottsdale, AZ 85267
Phone: 602-266-7031
Fax: 480-419-0606

June 2004

Registered Professional Engineer (Sanitary)
CERTIFICATE NO. 27610
CHARLES W. BALLINGER
Date Signed 6-16-04
ARIZONA, U.S.A.

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LIST OF ABBREVIATIONS

Abbreviation	Word
ac	Acre
ADD	annual average day demand
ADEQ	Arizona Department of Environmental Quality
ANSI	American National Standards Institute
AWWA	American Water Works Association
DU	dwelling unit
E	East
fps	feet per second
ft	Foot
G&SRB&M	Gila and Salt River Base and Meridian
gal	Gallon
gpcpd	gallons per capita per day
gpd	gallons per day
gph	gallons per hour
gpm	gallons per minute
hr	Hour
lb	Pound
MAG	Maricopa Association of Governments
MCESD	Maricopa County Environmental Services Department
MDD	maximum day demand
MG	million gallons
N	North
NRUC	New River Utility Company
PVC	polyvinyl chloride
PHD	peak hour demand
POE	point of entry
psi	pounds per square inch
psig	pounds per square inch gauge
R	Range
S	South
sq mi	square mile
T	Township
W	West

1.0 Introduction

1.1 General

Cody Farms and Riverstone Estates are two planned residential developments (the Projects) in the vicinity of Deer Valley Road and 78th Avenue (Figure 1-1, courtesy of Stantec Consulting). The Projects are generally located in the northeast quarter of Section 23, Township 4 North, Range 1 East, of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. Cody Farms is being developed by Mr. Robert Fletcher and Riverstone Estates is being developed by Columbia Property Development, LLC.

The Projects will be located within the City of Peoria. The City of Peoria does not have potable water infrastructure in the immediate area. Therefore, the Projects desire that New River Utility Company (NRUC) provide potable water service. NRUC currently provides service in the area. However, the Projects will be located outside of the area covered under NRUC's current certification of convenience and necessity. Therefore, an application to extend the certification of convenience and necessity will be submitted, and this report is intended to provide technical support for the request.

Flight Date Jan. 2002

Stantec

NORTH

N.T.S.

Aerial Photo
78th Avenue & Deer Valley Road

FIGURE 1-1

2.0 New River Utility Company

2.1 Customers and Water Usage

NRUC customers and water usage for the thirteen month period (397 days) of May 2003 through May 2004 are given in Tables 2-1 through 2-4. Customer types are residential, commercial, and construction. Construction customers and their usage are expected to decrease as the service area reaches build-out.

2.2 Water Demands

Water demands were projected for both master planning data and existing usage, and are summarized in Table 2-5. Projections include both the current and the expanded service areas. Existing usage and demands are approximately seventy (70) percent of the master planning projection. Calculations are included in Appendix A.

Table 2-1 Total Water Usage May 2003 Thru May 2004

Year	Month	Number of Customers	Gallons Sold (Thousands)	Average Gallons Sold Per Day (Thousands)
2003	May	2,412	46,924	1,514
	June	2,419	61,951	2,065
	July	2,459	73,331	2,366
	Aug	2,480	78,565	2,534
	Sept	2,497	60,264	2,008
	Oct	2,527	47,614	1,536
	Nov	2,534	60,426	2,014
	Dec	2,555	37,640	1,214
2004	Jan	2,567	37,553	1,211
	Feb	2,582	27,231	939
	Mar	2,586	34,821	1,124
	April	2,592	45,263	1,509
	May	2,600	50,184	1,619
	Average	2,524	50,905	1,667

Table 2-2 Total Residential Water Usage May 2003 Thru May 2004

Year	Month	Number of Customers	Gallons Sold (Thousands)	Average Gallons Sold Per Day (Thousands)
2003	May	2,391	42,879	1,383
	June	2,398	56,693	1,890
	July	2,438	68,452	2,208
	Aug	2,463	73,268	2,363
	Sept	2,479	56,912	1,897
	Oct	2,507	44,495	1,435
	Nov	2,514	57,829	1,928
	Dec	2,532	35,802	1,155
2004	Jan	2,542	35,530	1,146
	Feb	2,558	25,061	864
	Mar	2,562	31,827	1,027
	April	2,564	40,036	1,335
	May	2,569	45,088	1,454
	Average	2,501	47,221	1,546

Table 2-3 Total Commercial Water Usage May 2003 Thru May 2004

Year	Month	Number of Customers	Gallons Sold (Thousands)	Average Gallons Sold Per Day (Thousands)
2003	May	12	430	14
	June	12	568	19
	July	12	674	22
	Aug	12	715	23
	Sept	12	552	18
	Oct	14	426	14
	Nov	14	552	18
	Dec	16	339	11
2004	Jan	17	335	11
	Feb	17	328	11
	Mar	17	298	10
	April	20	374	12
	May	22	420	14
	Average	15	462	15

Table 2-4 Total Construction Water Usage May 2003 Thru May 2004

Year	Month	Number of Customers	Gallons Sold (Thousands)	Average Gallons Sold Per Day (Thousands)
2003	May	9	3,615	117
	June	9	4,690	156
	July	9	4,205	136
	Aug	5	4,582	148
	Sept	6	2,800	93
	Oct	6	2,693	87
	Nov	6	2,045	68
	Dec	7	1,499	48
2004	Jan	8	1,688	54
	Feb	7	1,842	64
	Mar	7	2,696	87
	April	8	4,853	162
	May	9	4,676	151
	Average	7	3,222	106

Table 2-5 Projected Total Water Demands With Expanded Service Area

Annual Average Day		Average Day of Maximum Month		Maximum Day of Maximum Month		Peak Hour	
gpd	gpm	gpd	gpm	gpd	gpm	gpd	gpm
Based On Master Planning Projections With Expanded Service Area							
2,345,000	1,630	3,750,000	2,600	4,690,000	3,260	8,207,000	5,700
Based On Current Demands With Expanded Service Area							
1,590,000	1,100	2,545,000	1,770	3,330,000	2,310	5,996,000	4,165

2.3 Water Supply

NRUC has four (4) permitted, operational wells. Capacities are shown in Table 2-6. NRUC has two other wells with capacities of 600 gpm and 900 gpm that are not permitted and are not used.

Table 2-6 NRUC Permitted Wells

Well No.	ADWR Well ID Number	Point of Entry POE	Nominal Pumping Capacity, gpm	24-hour Operating Day	18-hour Operating Day	12-hour Operating Day
				Nominal Capacity, gpd	Nominal Capacity, gpd	Nominal Capacity, gpd
1	55-805437-L	2	900	1,296,000	972,000	648,000
2	55-616944	2	375	540,000	405,000	270,000
4	55-616946	2	300	432,000	324,000	216,000
6	55-616948	3	1,250	1,800,000	1,350,000	900,000
		Subtotal	2,825	4,068,000	3,051,000	2,034,000
Total with largest pump out of service			1,575	2,268,000	1,701,000	1,134,000

2.4 Water Transmission Mains

NRUC has a water transmission main associated with each well. All wells discharge into a water storage tank and not directly into the distribution system.

2.5 Water Storage

NRUC has three (3) aboveground steel water storage tanks with capacities given in Table 2-7. The total usable capacity satisfies the Arizona Administrative Code, Title 18, Chapter 4 requirement for storage of the average day of the maximum month for both the existing and expanded service areas when all wells, except for the largest one, are pumping.

A gas chlorination system is located at each point of entry and all water entering the water storage tanks from the wells is chlorinated.

Table 2-7 Existing Water Storage

Storage Tank Number	Location	Point of Entry Location	Usable Tank Volume, gal
1	78th Drive and Deer Valley Road	2	773,000
2	87th Avenue and Rose Garden Lane	3	773,000
3	87th Avenue and Rose Garden Lane	3	773,000
		Total Normal Usable	2,319,000
		Total Emergency	570,000
		Total Usable	2,889,000

2.6 *Booster Pumping*

NRUC has two points of entry (POE), each with a booster pumping station. One booster station is located on the east side (at POE2) of the NRUC system adjacent to the Projects. The second booster station is located on the west side (at POE3) of the NRUC system near 87th Avenue and Rose Garden Lane. Each booster pump is constant speed with nominal pump capacities shown in Table 2-8.

Each booster pump is started and stopped from pressure settings at the adjacent hydropneumatic tank. Pressure settings vary from a high of approximately 70 to 75 psig to a low of approximately 50 psig. Pumps are started in a Lead, Lag 1, Lag 2, and Lag 3 sequence. An analysis for single and parallel pumping operation determined that the two stations have the combined capacity shown in Table 2-9. System pressures for computer modeling in this report were based upon these findings.

Table 2-8 Booster Pump Capacities

Point of Entry 2 (East Side)		
Booster Pump	Motor Size, Horsepower	Nominal Pump Capacity, gpm
1	25	525
2	25	525
3	100	1,750
4	25	525
Point of Entry 3 (West Side)		
Booster Pump	Motor Size, Horsepower	Nominal Pump Capacity, gpm
1	25	525
2	25	525
3	100	1,750
4	25	525

Table 2-9 Total Booster Pumping Capacity

Points of Entry 2 and 3 Combined	
Flowrate, gpm	Approximate System Pressure At Hydropneumatic Tank, psig
0 to 4,850	60 to 75
4,850 to 5,875	50 to 60
Greater than 5,875	Less than 50

2.7 Water Distribution Mains

The existing NRUC water distribution system consists of wide range of pipe sizes. Pipe materials are ductile iron and ANSI/AWWA C900 PVC, Classes 150 and 200.

2.8 Water Quality

During preparation of this report, NRUC stated that there were no outstanding violations or notices issued by Maricopa County Environmental Services Department (MCESD).

3.0 Cody Farms

3.1 Existing Site Description

The existing site is generally flat, with a gradual slope from northwest to southeast. The site was formally used for agricultural purposes and includes buildings, horse paddocks, and a garden with irrigation.

3.2 Land Use and Water Usage Projections

Cody Farms is planned for sixty-six (66) single family residential lots at build-out in 2005. Projected number of customers and annual water usage is given in Table 3-1. Water usage is expected to remain constant each year after build-out.

Table 3-1 Cody Farms Customer and Water Usage Projection

Year	Residential		Commercial		Total	
	Number of Customers	Projected Annual Water Consumption, gallons	Number of Customers	Projected Annual Water Consumption, gallons	Number of Customers	Projected Annual Water Consumption, gallons
2005	66	13,875,000	0	0	66	13,875,000

3.3 Water Demands

Projected water demands for Cody Farms are given in Table 3-2.

Table 3-2 Cody Farms Master Planning Water Demand Projection

Annual Average Day		Average Day of Maximum Month		Maximum Day of Maximum Month		Peak Hour	
gpd	gpm	gpd	gpm	gpd	gpm	gpd	gpm
38,000	26	61,000	42	76,000	53	133,000	92

3.4 Fire Flow Requirements

This report assumed that houses will be no larger than 3,300 sq. ft. and that an International Fire Code requirement of a minimum hydrant fire flow of 1,500 gpm at 20 psig for 2 hours for Type V-B construction will apply.

3.5 Storage Requirements

Storage to serve Cody Farms will be provided from the existing NRUC water storage tanks.

3.6 Planned Water Facilities

3.6.1 Onsite Improvements

Water distribution mains throughout the development will be 8-inch diameter except on the northwest side (Figure 3-1 courtesy of Stantec Consulting). New lots will be placed where an existing 12-inch diameter water distribution main is located. New 12-inch diameter water distribution mains will be installed in this area to reconnect the POE2 booster station to the existing the 12-inch diameter water main in Deer Valley Road.

3.6.2 Offsite Improvements

Refer to discussion in Section 4 regarding off-site improvements.

4.0 Riverstone Estates

4.1 Existing Site Description

The existing site is generally flat, with a gradual slope from northwest to southeast. A portion of the site was formally used for agricultural purposes and includes buildings, horse paddocks, and a garden with irrigation. The remainder of the site is vacant desert.

4.2 Land Use and Water Usage Projections

Riverstone Estates is planned for one hundred and one (101) single family residential lots at build-out in 2007. It will be constructed in two phases. Projected number of customers and annual water usage is given in Table 4-1. Water usage is expected to remain constant each year after build-out.

Table 4-1 Columbia Communities, Inc. Customer and Water Usage Projection

Year	Residential		Commercial		Total	
	Number of Customers	Projected Annual Water Consumption, gallons	Number of Customers	Projected Annual Water Consumption, gallons	Number of Customers	Projected Annual Water Consumption, gallons
2005	32	6,728,000	0	0	32	6,728,000
2006	48	10,092,000	0	0	48	10,092,000
2007	21	4,415,000	0	0	21	4,415,000
Total	101	21,235,000	0	0	101	21,235,000

4.3 Water Demands

Projected water demands for Riverstone Estates are given in Table 4-2.

Table 4-2 Riverstone Estates Master Planning Water Demand Projection

Annual Average Day		Average Day of Maximum Month		Maximum Day of Maximum Month		Peak Hour	
gpd	gpm	gpd	gpm	gpd	gpm	gpd	gpm
58,000	40	93,000	65	116,000	81	204,000	142

4.4 Fire Flow Requirements

This report assumed that houses will be no larger than 3,300 sq. ft. and that an International Fire Code requirement of a minimum hydrant fire flow of 1,500 gpm at 20 psig for 2 hours for Type V-B construction will apply.

4.5 Storage Requirements

Storage to serve Riverstone Estates will be provided from the existing NRUC water storage tanks.

4.6 Planned Water Facilities

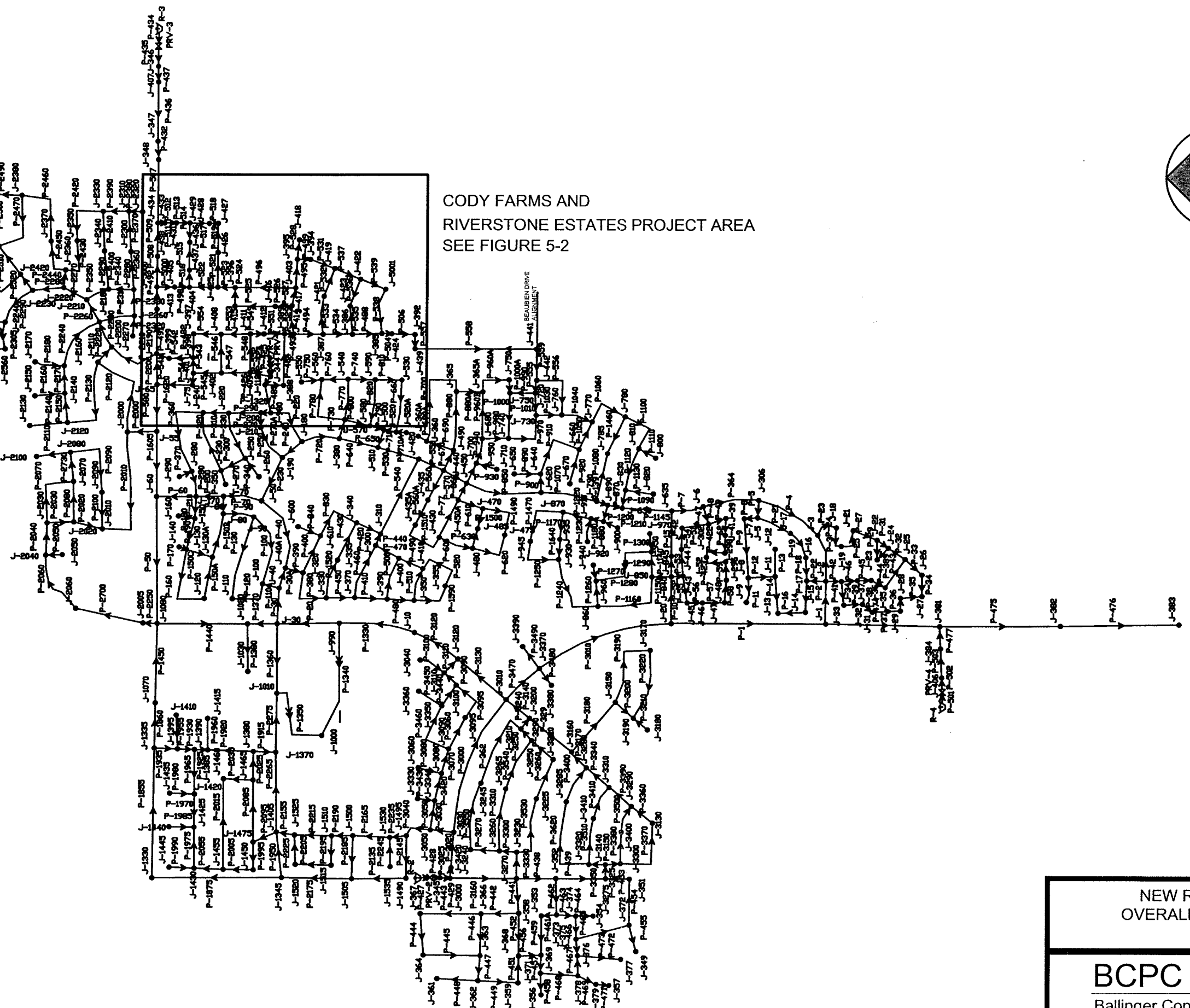
4.6.1 Onsite Improvements

Water distribution mains throughout the development will be 8-inch diameter (Figure 3-1).

4.6.2 Offsite Improvements

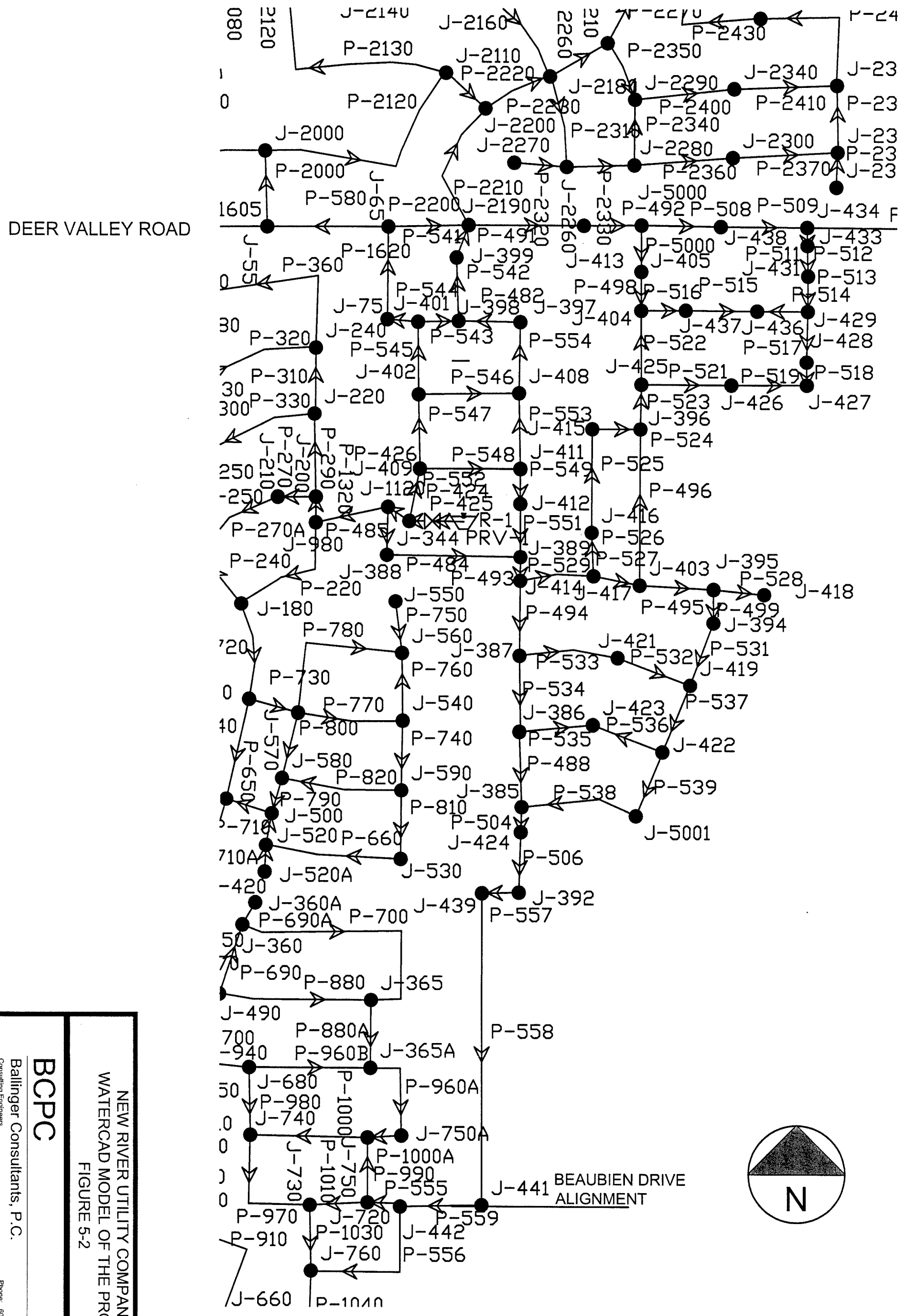
The 8-inch water distribution main at the south side of the development will be extended to connect to an existing water main located in Beaubien Drive. This will provide a looped system for both Riverstone Estates and Cody Farms.

A future connection going south from the POE2 booster station and then east to the Projects' north-south water distribution main is planned when Phase 2 of a nearby commercial area is constructed. This connection will not be included in improvements for the Projects.



NEW RIVER UTILITY COMPANY
OVERALL NRUC WATERCAD MODEL
FIGURE 5-1

BCPC
Ballinger Consultants, P.C.
Consulting Engineers
P.O. Box 12187
Scottsdale, Arizona 85267
Phone: 602-266-7031
Fax: 480-419-0606



NEW RIVER UTILITY COMPANY
WATERCAD MODEL OF THE PROJECTS
FIGURE 5-2

BCPC
Ballinger Consultants, P.C.
Consulting Engineers
P.O. Box 12187
Scottsdale, Arizona 85267
Phone: 602-266-7031
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5.0 WaterCAD Modeling Analysis

5.1 General

The existing NRUC potable water system and the potable water system planned for the Projects were analyzed using the computer program WaterCAD, Version 6.5, by Haestad Methods. The Hazen-Williams equation was selected within the program for estimating friction losses. The Projects were modeled together with the entire NRUC water system as each system is integral to the other in order to operate properly. The model layout is shown in Figures 5-1 and 5-2.

Fixed grade nodes were simulated using a reservoir and a pressure-reducing valve to establish fixed known hydraulic grade lines to match calculated and known pressures and flowrates at corresponding water demand conditions. Pressures used in the model are given in Table 5-1.

Table 5-1 Model Fixed Pressures

Water Demand Condition	Model Fixed Grade Node At POE2 (East) R-1/PRV-1/J-344 Pressure, psig	Model Fixed Grade Node At POE3 (West) R-2/PRV-2/J-345 Pressure, psig	Average Model Fixed Grade Node Pressure, psig
Average Day Demand	66	70	68
Maximum Day Demand	58	62	60
Peak Hour Demand	46	53	50
Maximum Day Demand Plus Fire Flows	58	62	60

Estimated total water demand was assigned to nodes in the analyzed water network based on the number of units each node was anticipated to serve. The proposed water network was analyzed for four different water demand scenarios:

- Average Day Demand (ADD)
- Maximum Day Demand (MDD)
- Peak Hour Demand (PHD)
- Maximum Day Demand Plus Fire Flow

Fire flows were applied at all nodes for simplicity in modeling; however, fire hydrants will only be constructed at selected locations during detailed design.

5.2 *Model Demands*

5.2.1 Domestic

Domestic water demands used in the model are shown in Table 5-2.

Table 5-2 WaterCAD Model Demands

Water Demand Condition	The Projects, gpm	Total System, gpm
Average Day Demand	67	1,628
Maximum Day Demand	134	3,257
Peak Hour Demand	234	5,699

5.2.2 Fire Flows

Fire flows used in the model were 1,500 gpm for the Projects, and 1,000 gpm to 2,500 gpm for existing residential and commercial areas in the existing NRUC system.

5.3 *Survey Benchmark*

Stantec Consulting reported that the survey benchmark relevant to the Projects is the Maricopa County Department of Transportation (MCDOT) benchmark at the intersection of 83rd Avenue and Deer Valley Road. Information on this benchmark is shown in Table 5-3 below.

Table 5-3 Survey Benchmark

East/West Street Alignment	North/South Street Alignment	Monument Description	Township/Range	Section/Corner	NGVD 29 Elev.(feet)
Deer Valley Road	83rd Avenue	MC BC in HH	T4N R1E	NW 1/4 Sec 23	1,279.40

5.4 *Design Criteria*

The following criteria are generally found for a properly designed water system. However, no system will generally meet all these criteria at all times.

- ADD Pressure Range = 60 to 80 psig
- MDD Pressure Range = 40 to 80 psig
- PHD Pressure Range = 40 to 80 psig
- Maximum Pipe Velocity = 5 fps (at PHD)
- Maximum Pipe Headloss = 10ft/1000ft (at PHD)

5.5 *Modeling Results*

5.5.1 Domestic

Modeling results are summarized in the tables below. Detailed modeling printouts are included in Appendix B. The future connection going south from the POE2 booster station to the Projects' north-south water distribution main was included in the model. However, several modeling runs were performed with this connection closed and it was found that this connection did not offer much benefit. The need for this connection should be reevaluated during detailed design of the nearby Phase 2 commercial area.

Table 5-4 NRUC System Model Results [1]

Water Demand Condition	Minimum Pressure, psig [3]	At Junction	Maximum Pressure, psig	At Junction [2]	Maximum Headloss (ft/1000 ft)	At Pipe	Maximum Velocity, fps	At Pipe
Average Day Demand (ADD)	54.5	2470	79.8	383	2.52	3030	2.3	3030
Maximum Day Demand (MDD)	45.5	2470	70.8	383	3.95	3030	3.1	3020
Peak Hour Demand (PHD)	31.3	2470	57.2	383	13.5	3030	5.8	3020

Notes:

1. Model includes existing and expanded service area.
2. Data shows higher pressures at some junctions, but these are fixed grade nodes with pipes closed for this report.
3. It is expected that actual minimum pressures at PHD will be higher than modeling results shown since actual system demands are less than master planning demands used in the model.

Table 5-5 The Projects System Model Results

Water Demand Condition	Minimum Pressure, psig [2]	At Junction	Maximum Pressure, psig	At Junction [1]	Maximum Headloss (ft/1000 ft)	At Pipe	Maximum Velocity, fps	At Pipe
Average Day Demand (ADD)	60.8	398	70.7	442	0.3	493	0.7	493
Maximum Day Demand (MDD)	52.5	398	61.9	442	1.4	552	2.0	552
Peak Hour Demand (PHD)	39.8	399	48.7	442	4.8	493	3.1	493

Notes:

1. Data shows higher pressures at some junctions, but these are fixed grade nodes with pipes closed for this report.
2. It is expected that actual minimum pressures at PHD will be higher than modeling results shown since actual system demands are less than master planning demands used in the model.

5.5.2 Fire Flow

Modeling results are summarized in the Table 5-6 and in detailed printouts included in Appendix B. Minimum pressure in the water system under fire flow conditions concurrent with the maximum day demand were at or above the permissible pressure of 20 psig.

Table 5-6 NRUC System Fire Flow Model Results [1, 4]

Fire Flow Condition	Residual Pressure, psig	At Junction	Minimum System Pressure, psig	At Junction	Maximum Headloss (ft/1000 ft)	At Pipe	Maximum Velocity, fps	At Pipe
MDD Plus 1,000 gpm Fire Flow At Junction 2130 [2]	20.0	2130	34.5	2120	75.1	2140	11.4	2140
MDD Plus 2,500 gpm Fire Flow At Junction 427	41.9	427	42.6	2500	35.5	517	9.1	517
MDD Plus 2,000 gpm Fire Flow At Junction 403 [3]	51.2	403	44.0	1010	24.1	493	7.4	493

Notes:

1. Model includes existing and expanded service area.
2. Junction 2130 has the lowest available fire flow in the NRUC systems.
3. Minimum required fire flow is 1,500 gpm at Junction 403. Greater than minimum required is available.
4. It is expected that actual minimum and residual pressures will be higher than modeling results shown since actual system demands are less than master planning demands used in the model.

6.0 References

1. Water Infrastructure Master Plan, City of Peoria, September 2001, Malcolm Pirnie, Inc.
2. Engineering Bulletin No. 10, Guidelines for the Construction of Water Systems, ADEQ, May 1978.
3. E-mail dated February 3, 2004, Steven Hader, Stantec to Charles Ballinger, Ballinger Consultants, P.C.
4. Fletcher Heights, Phase IV, Water System Analysis within New River Utility Co. Service Area, CMX Group Inc., June 1999.
5. Arizona Administrative Code, Title 18, Chapter 4.

APPENDIX A
CALCULATIONS

New River Utility Company
PWS No. 07051

Ballinger
6/15/2004

Land Use Summary

Development	Phase	Single Family Residential, No.	School, ac	Park, ac	Maintenance, ac	Commercial. Ac	Multi-family, No.
Fletcher Heights	1A	668	15	7.9	6.8		
Fletcher Heights	1B	276					
Fletcher Heights	1C	191					
Fletcher Heights	IIA	213					
Fletcher Heights	IIB	426		9.3			
Fletcher Heights	III	339		11.3		14.4	
Fletcher Heights	IV	137					560
Silverton 1 Development		322				12.0	
Silverton 2 Development		162					
83rd Ave and Union Hills Drive, Commercial						15.0	
Future Church- 5 ac							
Columbia Communities, Residential		101					
Cody Farms, Residential		66					
Arrowhead Ranch Office Park- Phases 1 and 2, Commercial						9.4	
Future Commercial Project A						5.0	
Future Commercial Project B						1.8	
TOTAL		2901	15	28.5	6.8	57.6	560

Point of Entry 3 (POE 3) is located on the west side of the system

Point of Entry 2 (POE 2) is located on the east side of the system

Potable Water Demand Summary

		Annual Average Day Demand (ADD), gpd								Note 1 Annual Avg. Day x 2.0 Maximum Day		Note 2 Max Day x 1.75 Peak Hour		
Development	Phase	Single Family Residential	Church or School	Park	Maintenance	Commercial	Multi-family	Total, gpd	Total, gpm	Total, gpd	Total, gpm	Total, gpd	Total, gpm	
Current Certificated Service Area														
Fletcher Heights	1A	384,768	25,920	13,650	11,750			436,088	303	872,176	606	1,526,308	1,060	
Fletcher Heights	1B	158,976						158,976	110	317,952	221	556,416	386	
Fletcher Heights	1C	110,016						110,016	76	220,032	153	385,056	267	
Fletcher Heights	IIA	122,688	3,000					125,688	87	251,376	175	439,908	305	
Fletcher Heights	IIB	245,376		16,070				261,446	182	522,892	363	915,061	635	
Fletcher Heights	III	195,264		19,525		19,440		234,229	163	468,458	325	819,802	569	
Fletcher Heights	IV	78,912					252,000	330,912	230	661,824	460	1,158,192	804	
Silverton 1 Development		185,472	168,190			16,200		369,862	257	739,724	514	1,294,517	899	135,360 for sunrise HS
Silverton 2 Development		93,312						93,312	65	186,624	130	326,592	227	
83rd Ave and Union Hills Drive, Commercial						34,560		34,560	24	69,120	48	120,960	84	
Future Church- 5 ac			8,750					8,750	6	17,500	12	30,625	21	
Arrowhead Ranch Office Park- Phases 1 and 2, Commercial						49,211		49,211	34	98,423	68	172,239	120	
Future Commercial Project A						26,176		26,176	18	52,352	36	91,617	64	
Future Commercial Project B						9,423		9,423	7	18,847	13	32,982	23	
Subtotal		1,574,784	205,860	49,245	11,750	155,011	252,000	2,248,650	1,562	4,497,300	3,123	7,870,275	5,465	
New Expansion Request To Current Certificated Service Area														
Columbia Communities, Residential		58,176						58,176	40	116,352	81	203,616	141	
Cody Farms, Residential		38,016						38,016	26	76,032	53	133,056	92	
Subtotal		96,192						96,192	67	192,384	134	336,672	234	
TOTAL		1,670,976	205,860	49,245	11,750	155,011	252,000	2,344,842	1,628	4,689,684	3,257	8,206,947	5,699	
											2.0 times ADD		3.5 times ADD	
Percent of Total		71.3	8.8	2.1	0.5	6.6	10.7	100.0						

Note 1: City of Peoria historical data in Water Master Plan shows factor of 1.8.
Note 2: City of Peoria historical data in Water Master Plan shows factor of 1.7.

Potable Water Demand:
Based on Master Planning Projections

Single Family Residential

Average Daily Demand per Capita, gpd =	180	Reference 4	Note 1
Lost and Unaccounted Water Factor =	1.0		Note 2
Average Population per Dwelling Unit, persons =	3.2	Reference 4	
Average Demand Per Dwelling Unit, gpd =	576		

Maximum Day Demand =	2.0	Times Average Day Demand	Reference 4
Peak Hour Demand =	1.75	Times Maximum Day Demand	Reference 4

Multi-Family Residential

Average Daily Demand per Capita, gpd =	180	Reference 4	Note 1
Lost and Unaccounted Water Factor =	1.0		Note 2
Average Population per Dwelling Unit, persons =	2.5	Reference 4	
Average Demand Per Dwelling Unit, gpd =	450		

Maximum Day Demand =	2.0	Times Average Day Demand	Reference 4
Peak Hour Demand =	1.75	Times Maximum Day Demand	Reference 4

Notes
1. The City of Peoria recommends a value of 220 gpcd. However, since commercial areas were estimated separately, it is anticipated that actual average residential demand may be closer to 180 gpcd.

Commercial

Unit Average Daily Water Use, gpd/sq ft =	0.60	City of Scottsdale Design Standards, Figure 4.1-3 for Office
Unit Average Daily Water Use, gpd/sq ft =	0.75	City of Phoenix Design Manual for Water and Wastewater Systems, February 1, 2004 Draft
Use	0.75	

	Total Area, acres	Building Area, sq ft	Building Area As Percent of Total Area	Average Daily Water Use, gpd	Average Daily Water Flowrate, gpm
Arrowhead Ranch Office Park- Phases 1 and 2					
Building A		7,977		5,983	4.15
Building B		7,316		5,487	3.81
Building C		6,511		4,883	3.39
Building D		6,511		4,883	3.39
Building E		4,850		3,638	2.53
Building F		4,850		3,638	2.53
Building G		6,600		4,950	3.44
Building H		7,000		5,250	3.65
Building I		7,000		5,250	3.65
Building J		7,000		5,250	3.65
Subtotal	9.4	65,615	16.0	49,211	34.17
Future Commercial - Phase 2	5.0	34,902	16.0	26,176	18.18
Future Commercial - Phase 3	1.8	12,565	16.0	9,423	6.54
Subtotal Future	6.8	47,466		35,600	24.72
Total	16.2	113,081		84,811	58.90

Church

Unit Average Daily Water Use, gpd/sq ft =	0.60	Considering church facility similar to office
Unit Average Daily Water Use, gpd/person =	70.0	Adapted fom Arizona Administrative Code, Title 18, Chapter 9, Table 1

	Assumed Maximum Attendance, persons	Building Area, sq ft	Building Loading, Sq ft/Person	Average Daily Water Use, gpd	Average Daily Water Flowrate, gpm
Assuming similar to office		12,650		7,590	5.27
Using Arizona Administrative Code	125		101.2	8,750	6.08
			Use	8750	6.08

Potable Water Demand: Actual Usage

From NRUC Records from May 2003 To May 2004	Total gals per min	Total gals per day	Residential gals per day	Commercial gals per day	Construction gals per day
Current Annual Average Day Demand =	1,158	1,666,919	1,546,277	15,141	105,501
Current Average Day of Maximum Month Demand =	1,760	2,534,355	2,363,484	23,065	161,767
Current Maximum Day of Maximum Month Demand =	2,315	3,333,839	3,092,554	30,282	211,003
Current Peak Hour Demand =	4,167	6,000,910	5,566,597	54,508	379,805

Maximum day and peak hour values were calculated using estimated peaking factors below.
Daily flow readings are not made on this water system.

	Estimated	
Current Percent of Residential Buildout =	95	This % was used in calculation below.
Current Percent of Commercial Buildout =	40	This % was used in calculation below.

Projected Demands At Buildout Based Upon Actual Usage	Total gals per min	With No Factor of Safety Total gals per day	Residential gals per day	Commercial gals per day	Construction gals per day
Annual Average Day Demand =	1,157	1,665,513	1,627,660	37,853	0
Average Day of Maximum Month Demand =	1,768	2,545,539	2,487,878	57,661	0
Maximum Day of Maximum Month Demand =	2,313	3,331,025	3,255,320	75,705	0
Peak Hour Demand =	4,164	5,995,846	5,859,576	136,270	0

Projected Peaking Factors At Buildout

	With No Factor of Safety
Maximum Day of Maximum Month/Annual Average Day =	2.0
Peak Hour/Annual Average Day =	3.6
Peak Hour/Maximum Day of Maximum Month =	1.8
Maximum Day of Maximum Month/Average Day of Maximum Month =	1.3
Average Day of Maximum Month/Annual Average Day =	1.5

Potable Water Demand- Commercial Area North of Union Hills Drive on 83rd Ave.

Area, ac =	15	
Unit Average Day Demand, gpd/ac =	2,304	Conservative to account for any future land use changes
Total ADD, gpd =	34,560	
Total ADD, gpm =	24.00	
Number of Junctions =	3	
ADD/Junction, gpm =	8.00	

Water Supply

Desirable Design Criteria: Provide supply facilities to meet maximum day plus 10 percent with largest pumping unit out of service. Reference 1 This is not a regulatory requirement.

Total Demands Based On Master Planning Projections at Buildout With Expanded Service Area

Annual Average Day	Maximum Day	Maximum Day	Maximum Day Plus 10%	
gpd	gpd	gpm	gpd	gpm
2,344,842	4,689,684	3,257	5,158,652	3,582

Annual Average Demand = 855,867,285 gal
2627 acre-ft

Total Demands Based On Actual Usage Projections at Buildout With Expanded Service Area

Annual Average Day	Maximum Day	Maximum Day	Maximum Day Plus 10%	
gpd	gpd	gpm	gpd	gpm
1,665,513	3,331,025	2,313	3,664,128	2,545

Annual Average Demand = 607,912,145 gal
1866 acre-ft

Existing Usable Wells' Nominal Capacities

Point of Entry POE	Well No.	Nominal Pumping Capacity, gpm	24-hour Operating Day Nominal Capacity, gpd	18-hour Operating Day Nominal Capacity, gpd	12-hour Operating Day Nominal Capacity, gpd
2	1	900	1,296,000	972,000	648,000
2	2	375	540,000	405,000	270,000
3	3		0	0	0
2	4	300	432,000	324,000	216,000
2	5		0	0	0
3	6	1,250	1,800,000	1,350,000	900,000
	SUBTOTAL	2,825	4,068,000	3,051,000	2,034,000
Total w/largest pump out of service		1,575	2,268,000	1,701,000	1,134,000

Existing Unusable Wells' Nominal Capacities

Point of Entry POE	Well No.	Nominal Pumping Capacity, gpm	24-hour Operating Day Nominal Capacity, gpd	18-hour Operating Day Nominal Capacity, gpd	12-hour Operating Day Nominal Capacity, gpd
2	1		0	0	0
2	2		0	0	0
3	3	900	1,296,000	972,000	648,000
2	4		0	0	0
2	5	600	864,000	648,000	432,000
3	6		0	0	0
	SUBTOTAL	1,500	2,160,000	1,620,000	1,080,000

Total Existing Usable and Unusable Wells' Nominal Capacities

	Nominal Pumping Capacity, gpm	24-hour Operating Day Nominal Capacity, gpd	18-hour Operating Day Nominal Capacity, gpd	12-hour Operating Day Nominal Capacity, gpd
TOTAL	4,325	6,228,000	4,671,000	3,114,000
Total w/largest pump out of service	3,075	4,428,000	3,321,000	2,214,000

New River Utility Company
PWS No. 07051

Ballinger
6/15/2004

Water Storage- Distribution System
Based on Master Planning Projections at Buildout With Expanded Service Area

Total Demands

Annual Average Day gpd	Average Day of Maximum Month gpd	Maximum Day gpd
2,344,842	3,564,160	4,689,684

Usable Storage Required = Average Day of Maximum Month	3,564,160	gal	Reference 5
Usable Storage Required = Average Day of Maximum Month	1,296,160	gal	Reference 5- Considering wells based on 24-hour operation
Usable Storage Required = Average Day of Maximum Month	1,863,160	gal	Reference 5- Considering wells based on 18-hour operation

Known: 1 ft^3 = 7.48 gal.
Vol. Of Cylinder = pi*r^2*Height
Steel Sections commonly available come in 8 ft. widths. 63,541.75 gal/ft

Useable Volume [gal.]	[ft^3]	Diameter [ft]	Area [ft^2]	Side Water Height [ft]
773,303	103,383	104	8,495	12.17

Loss of 1.83 feet at bottom, 1' freeboard at top plus 1 feet of emergency storage left at bottom

Design = Approximately One 104' Dia. X 16' Side Water Height AWWA Steel Tank

Distribution System Storage

	Location	Total Tank 1 Volume, gal	Total Tank 2 Volume, gal	Total Tank Volume, gal	Usable Tank 1 Volume, gal	Usable Tank 2 Volume, gal	Total Usable Tank Volume, gal	Emergency Storage Volume, gal
Existing	POE 2	1,000,000	0	1,000,000	773,303	0	773,303	63,500
Existing	POE 3	1,000,000	1,000,000	2,000,000	773,303	773,303	1,546,606	127,000
			Total	3,000,000		Subtotal	2,319,909	190,500
						Total	2,510,409	

New River Utility Company
PWS No. 07051

Ballinger
6/15/2004

Water Storage- Distribution System
Based on Actual Usage Projections at Buildout With Expanded Service Area

Total Demands

Annual Average Day gpd	Average Day of Maximum Month gpd	Maximum Day of Maximum Month gpd
1,665,513	2,545,539	3,331,025

Needed Fire Flow = 1,500 gpm for 2 hours Reference 6
Fire Flow Storage, gal = 180,000

Usable Storage Required = Average Day of Maximum Month	2,545,539	gal	Reference 5
Usable Storage Required = Average Day of Maximum Month	277,539	gal	Reference 5- Considering wells pumping 24 hours
Usable Storage Required = Average Day of Maximum Month	844,539	gal	Reference 5- Considering wells pumping 18 hours

Known: 1 ft^3 = 7.48 gal.
Vol. Of Cylinder = pi*r^2*Height
Steel Sections commonly available come in 8 ft. widths. 63,541.75 gal/ft

Useable Volume [gal.]	[ft^3]	Diameter [ft]	Area [ft^2]	Side Water Height [ft]
773,303	103,383	104	8,495	12.17

Loss of 1.83 feet at bottom, 1' freeboard at top plus 1 feet of emergency storage left at bottom

Design = Approximately One 104' Dia. X 16' Side Water Height AWWA Steel Tank

Distribution System Storage

	Location	Total Tank 1 Volume, gal	Total Tank 2 Volume, gal	Total Tank Volume, gal	Usable Tank 1 Volume, gal	Usable Tank 2 Volume, gal	Total Usable Tank Volume, gal	Emergency Storage Volume, gal
Existing	POE 2	1,000,000	0	1,000,000	773,303	0	773,303	63,500
Existing	POE 3	1,000,000	1,000,000	2,000,000	773,303	773,303	1,546,606	127,000
				3,000,000		Subtotal	2,319,909	190,500
						Total	2,510,409	

Existing Booster Pumping Capacity at 60 psig

Point of Entry 2

Booster Pump No.	Berkeley Pump Model	Motor Size, Horsepower	Each Pump Alone Capacity, gpm	Pumps 1 and 2 or 2 and 4 Capacity, gpm	Pumps 1, 2, and 3 or 2, 3, and 4 Capacity, gpm	Pumps 1, 2, 3, and 4 Capacity, gpm	Pumps 1 and 3 or 3 and 4 Capacity, gpm	Pumps 1, 2 and 4 Capacity, gpm
1	B3ZPL- 7.250" Impeller	25	660					
2	B3ZPL- 7.250" Impeller	25	660					
3	B5EXPBH- 14.37" Impeller	100	1,950					
4	B3ZPL- 7.250" Impeller	25	660					
SUBTOTAL				1,390	3,300	3,900	2,600	1,975

Point of Entry 3

Booster Pump No.	Berkeley Pump Model	Motor Size, Horsepower	Each Pump Alone Capacity, gpm	Pumps 1 and 2 or 2 and 4 Capacity, gpm	Pumps 1, 2, and 3 or 2, 3, and 4 Capacity, gpm	Pumps 1, 2, 3, and 4 Capacity, gpm	Pumps 1 and 3 or 3 and 4 Capacity, gpm	Pumps 1, 2 and 4 Capacity, gpm
1	B3ZPL- 7.250" Impeller	25	660					
2	B3ZPL- 7.250" Impeller	25	660					
3	B5EXPBH- 14.37" Impeller	100	1,950					
4	B3ZPL- 7.250" Impeller	25	660					
SUBTOTAL				1,390	3,300	3,900	2,600	1,975
			TOTAL	2,780	6,600	7,800	5,200	3,950

TOTAL with Largest Pump Out of Service 5,875 at 60 psig

Existing Booster Pumping Capacity at 50 psig

Point of Entry 2

Booster Pump No.	Berkeley Pump Model	Motor Size, Horsepower	Each Pump Alone Capacity, gpm	Pumps 1 and 2 or 2 and 4 Capacity, gpm	Pumps 1, 2, and 3 or 2, 3, and 4 Capacity, gpm	Pumps 1, 2, 3, and 4 Capacity, gpm	Pumps 1 and 3 or 3 and 4 Capacity, gpm	Pumps 1, 2 and 4 Capacity, gpm
1	B3ZPL- 7.250" Impeller	25	725					
2	B3ZPL- 7.250" Impeller	25	725					
3	B5EXPBH- 14.37" Impeller	100	2,100					
4	B3ZPL- 7.250" Impeller	25	725					
SUBTOTAL				1,450	3,550	4,275	2,825	2,190

Point of Entry 3

Booster Pump No.	Berkeley Pump Model	Motor Size, Horsepower	Each Pump Alone Capacity, gpm	Pumps 1 and 2 or 2 and 4 Capacity, gpm	Pumps 1, 2, and 3 or 2, 3, and 4 Capacity, gpm	Pumps 1, 2, 3, and 4 Capacity, gpm	Pumps 1 and 3 or 3 and 4 Capacity, gpm	Pumps 1, 2 and 4 Capacity, gpm
1	B3ZPL- 7.250" Impeller	25	725					
2	B3ZPL- 7.250" Impeller	25	725					
3	B5EXPBH- 14.37" Impeller	100	2,100					
4	B3ZPL- 7.250" Impeller	25	725					
SUBTOTAL				1,450	3,550	4,275	2,825	2,190
			TOTAL	2,900	7,100	8,550	5,650	4,380

TOTAL with Largest Pump Out of Service 6,465 at 50 psig

New River Utility Company
PWS No. 07051

Ballinger
6/15/2004

Booster Pumping

Provide booster pumping to meet peak hour or maximum day plus fire flow, whichever is greater, with largest pumping unit out of service.

Total Demands- Based on Master Planning Projections at Buildout With Expanded Service Area

Average Day of Maximum Month gpd	Maximum Day of Maximum Month gpd	Peak Hour gpd	Peak Hour gpm	Peak Hour Plus 10% gpm	Maximum Day of Maximum Month Plus 1000 gpm Fire Flow gpm	Maximum Day of Maximum Month Plus 1500 gpm Fire Flow gpm	Maximum Day of Maximum Month Plus 2500 gpm Fire Flow gpm
3,751,747	4,689,684	8,206,947	5,699	6,269	4,257	4,757	5,757

Total Demands- Based on Actual Usage Projections at Buildout With Expanded Service Area

Average Day of Maximum Month gpd	Maximum Day of Maximum Month gpd	Peak Hour gpd	Peak Hour gpm	Peak Hour Plus 10% gpm	Maximum Day of Maximum Month Plus 1000 gpm Fire Flow gpm	Maximum Day of Maximum Month Plus 1500 gpm Fire Flow gpm	Maximum Day of Maximum Month Plus 2500 gpm Fire Flow gpm
2,545,539	3,331,025	5,995,846	4,164	4,580	3,313	3,813	4,813

Total Demands- Based on Actual Usage during May 2003 Through May 2004

Average Day of Maximum Month gpd	Maximum Day of Maximum Month gpd	Peak Hour gpd	Peak Hour gpm	Peak Hour Plus 10% gpm	Maximum Day of Maximum Month Plus 1000 gpm Fire Flow gpm	Maximum Day of Maximum Month Plus 1500 gpm Fire Flow gpm	Maximum Day of Maximum Month Plus 2500 gpm Fire Flow gpm
2,534,355	3,333,839	6,000,910	4,167	4,584	3,315	3,815	4,815

Existing Booster Pumping Capacity at 75 psig

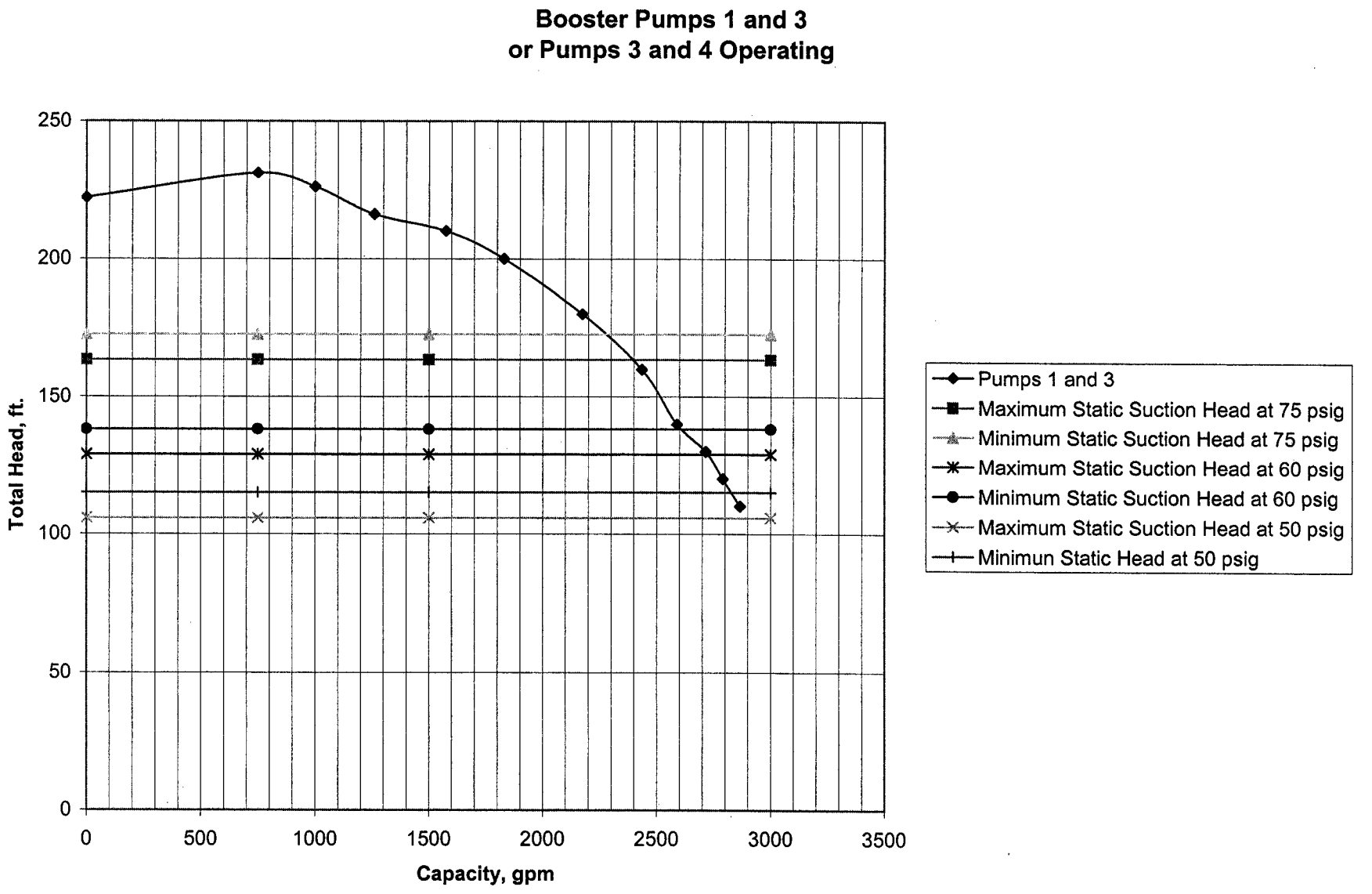
Point of Entry 2 (East Side)

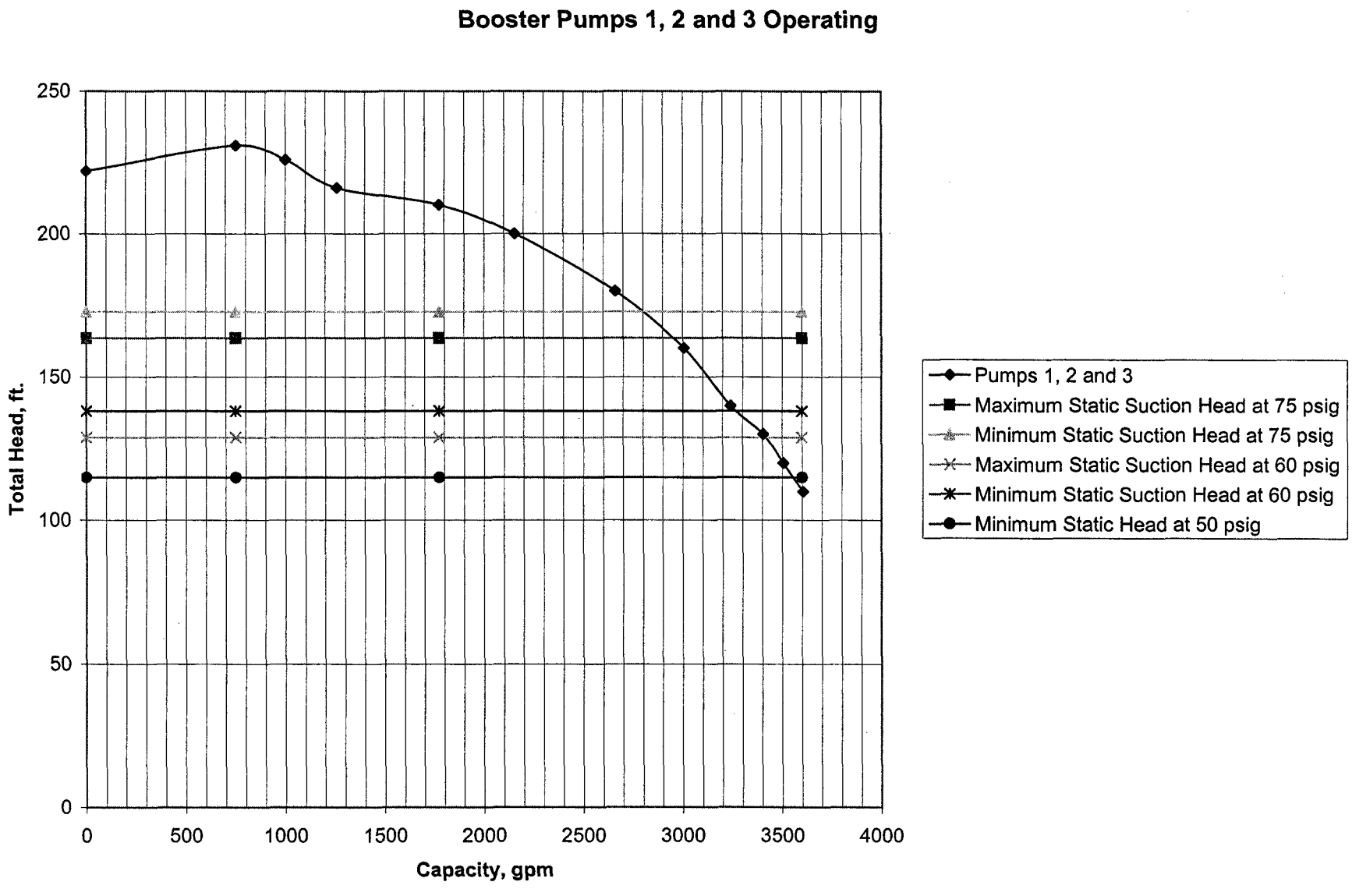
Booster Pump No.	Berkeley Pump Model	Motor Size, Horsepower	Each Pump Alone Capacity, gpm	Pumps 1 and 2 or 2 and 4 Capacity, gpm	Pumps 1, 2, and 3 or 2, 3, and 4 Capacity, gpm	Pumps 1, 2, 3, and 4 Capacity, gpm	Pumps 1 and 3 or 3 and 4 Capacity, gpm	Pumps 1, 2 and 4 Capacity, gpm
1	B3ZPL- 7.250" Impeller	25	525					
2	B3ZPL- 7.250" Impeller	25	525					
3	B5EXPBH- 14.37" Impeller	100	1,750					
4	B3ZPL- 7.250" Impeller	25	525					
SUBTOTAL				1,050	2,800	3,300	2,300	1,550

Point of Entry 3 (West Side)

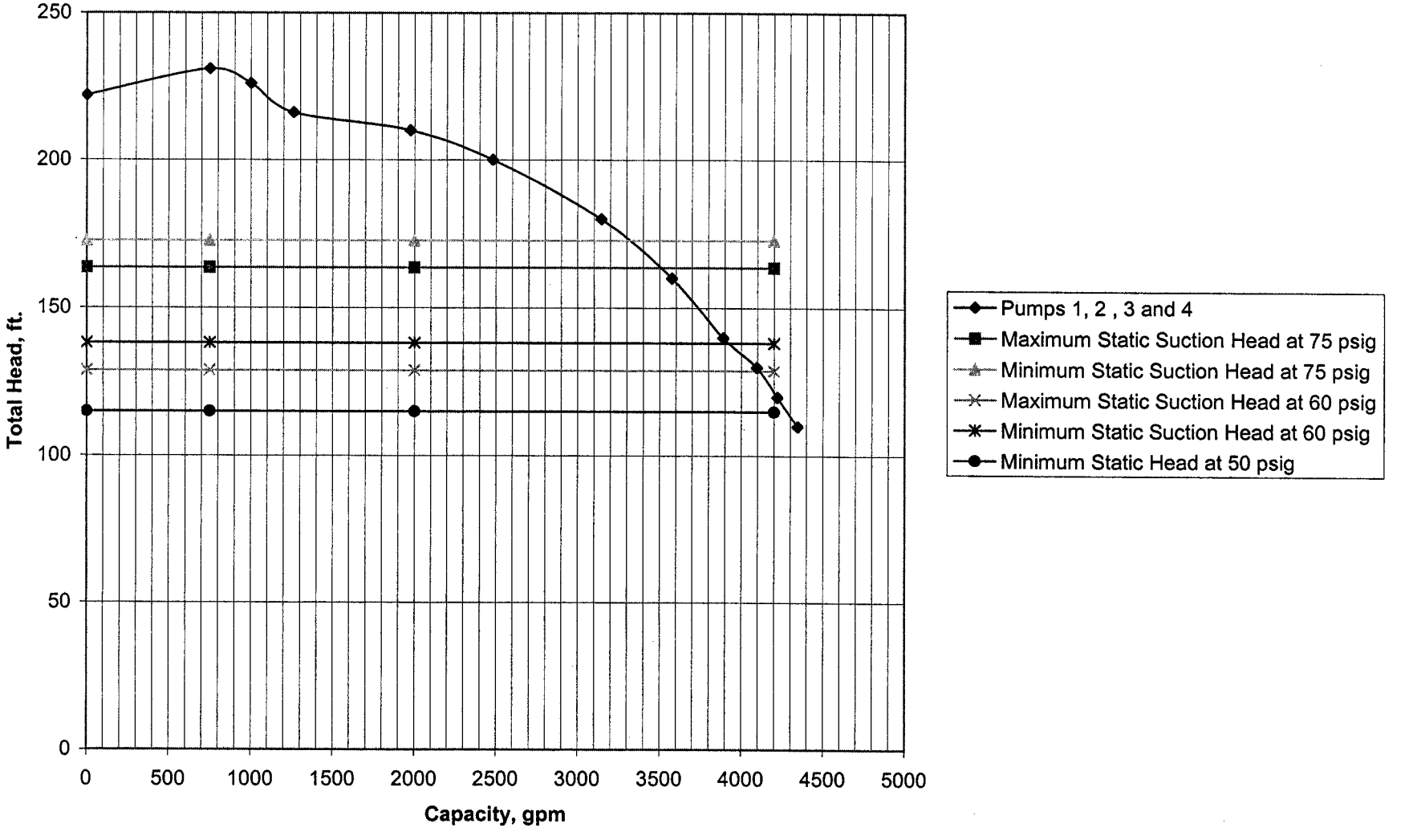
Booster Pump No.	Berkeley Pump Model	Motor Size, Horsepower	Each Pump Alone Capacity, gpm	Pumps 1 and 2 or 2 and 4 Capacity, gpm	Pumps 1, 2, and 3 or 2, 3, and 4 Capacity, gpm	Pumps 1, 2, 3, and 4 Capacity, gpm	Pumps 1 and 3 or 3 and 4 Capacity, gpm	Pumps 1, 2 and 4 Capacity, gpm
1	B3ZPL- 7.250" Impeller	25	525					
2	B3ZPL- 7.250" Impeller	25	525					
3	B5EXPBH- 14.37" Impeller	100	1,750					
4	B3ZPL- 7.250" Impeller	25	525					
SUBTOTAL				1,050	2,800	3,300	2,300	1,550
			TOTAL	2,100	5,600	6,600	4,600	3,100

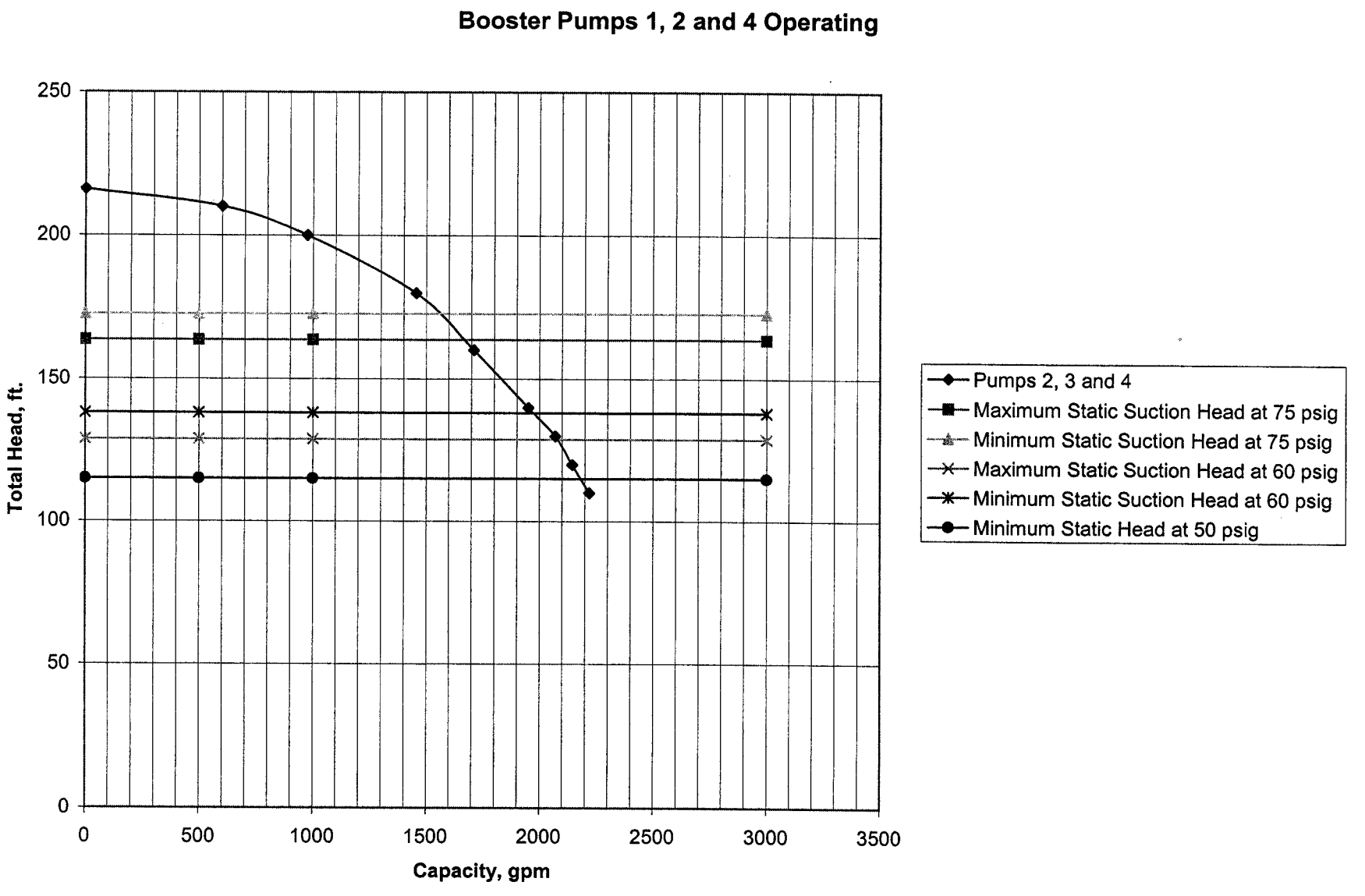
TOTAL with Largest Pump Out of Service 4,850 at 75 psig

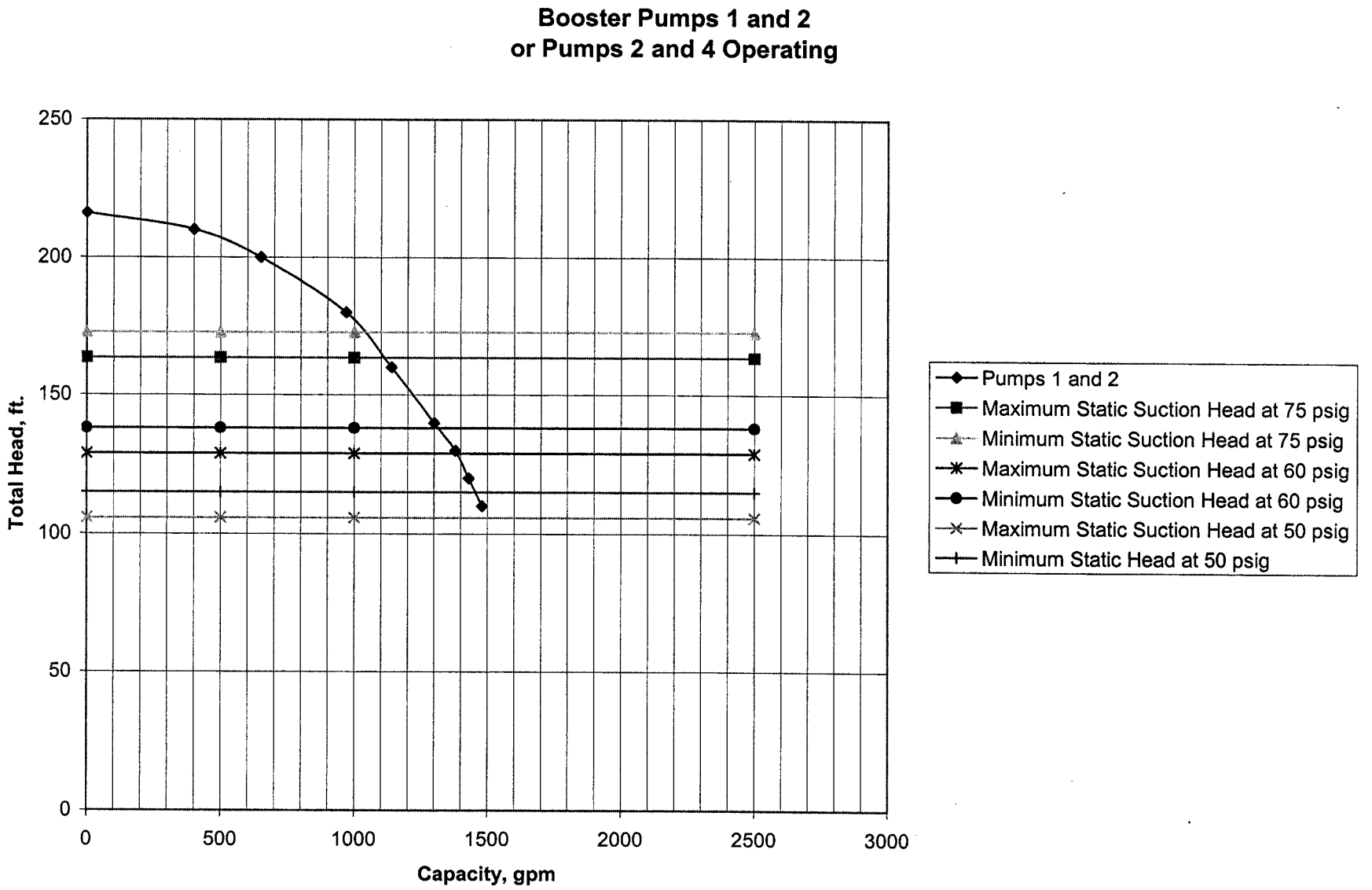

Booster Pumps 1 and 3
or Pumps 3 and 4 Operating
Total Head, ft.
250
200
150
100
50
0
0
500
1000
1500
2000
2500
3000
3500
Capacity, gpm
Pumps 1 and 3
Maximum Static Suction Head at 75 psig
Minimum Static Suction Head at 75 psig
Maximum Static Suction Head at 60 psig
Minimum Static Suction Head at 60 psig
Maximum Static Suction Head at 50 psig
Minimun Static Head at 50 psig

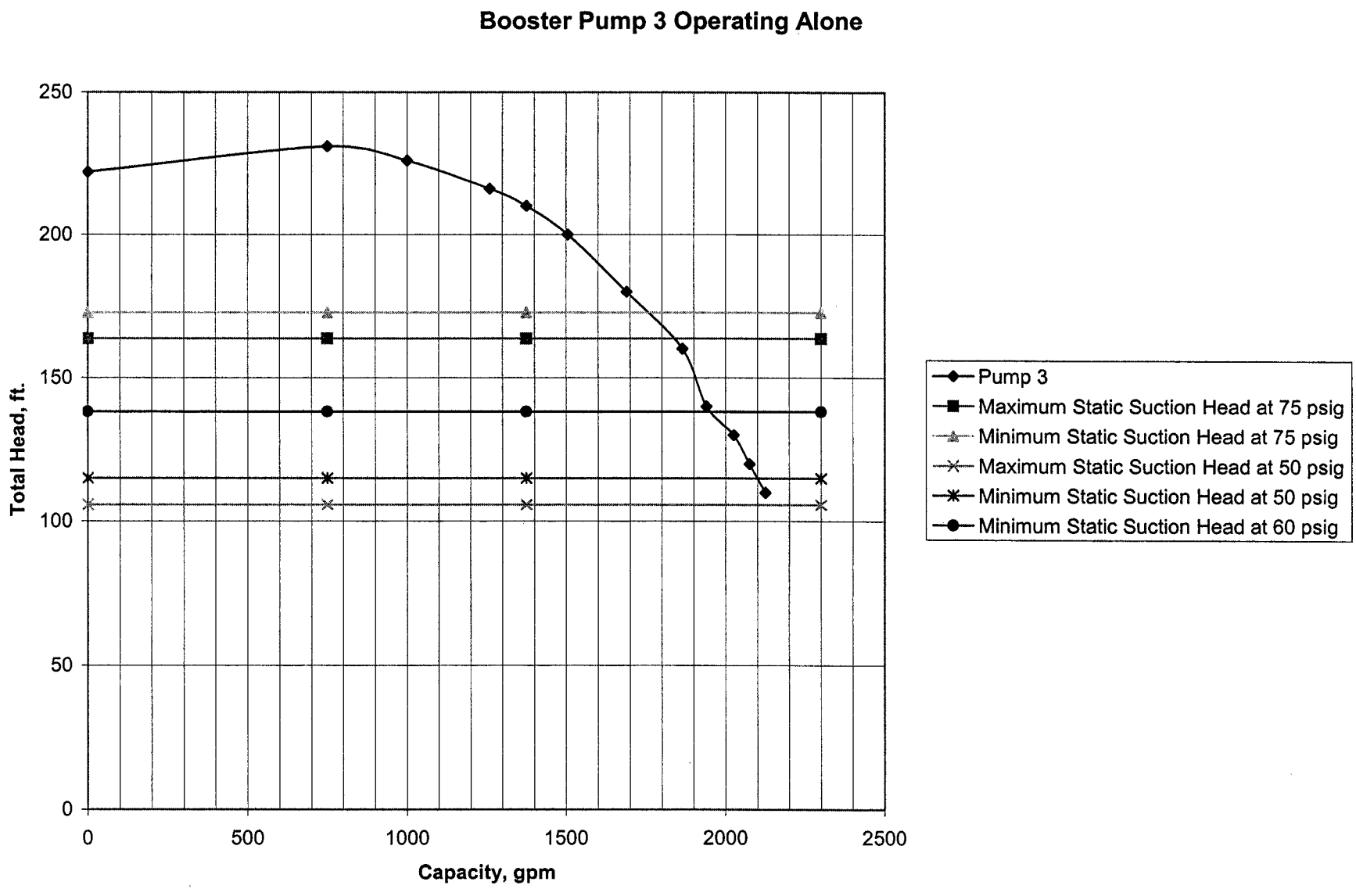

Booster Pumps 1, 2 and 3 Operating
Total Head, ft.
250
200
150
100
50
0
0
500
1000
1500
2000
2500
3000
3500
4000
Capacity, gpm
Pumps 1, 2 and 3
Maximum Static Suction Head at 75 psig
Minimum Static Suction Head at 75 psig
Maximum Static Suction Head at 60 psig
Minimum Static Suction Head at 60 psig
Minimum Static Head at 50 psig

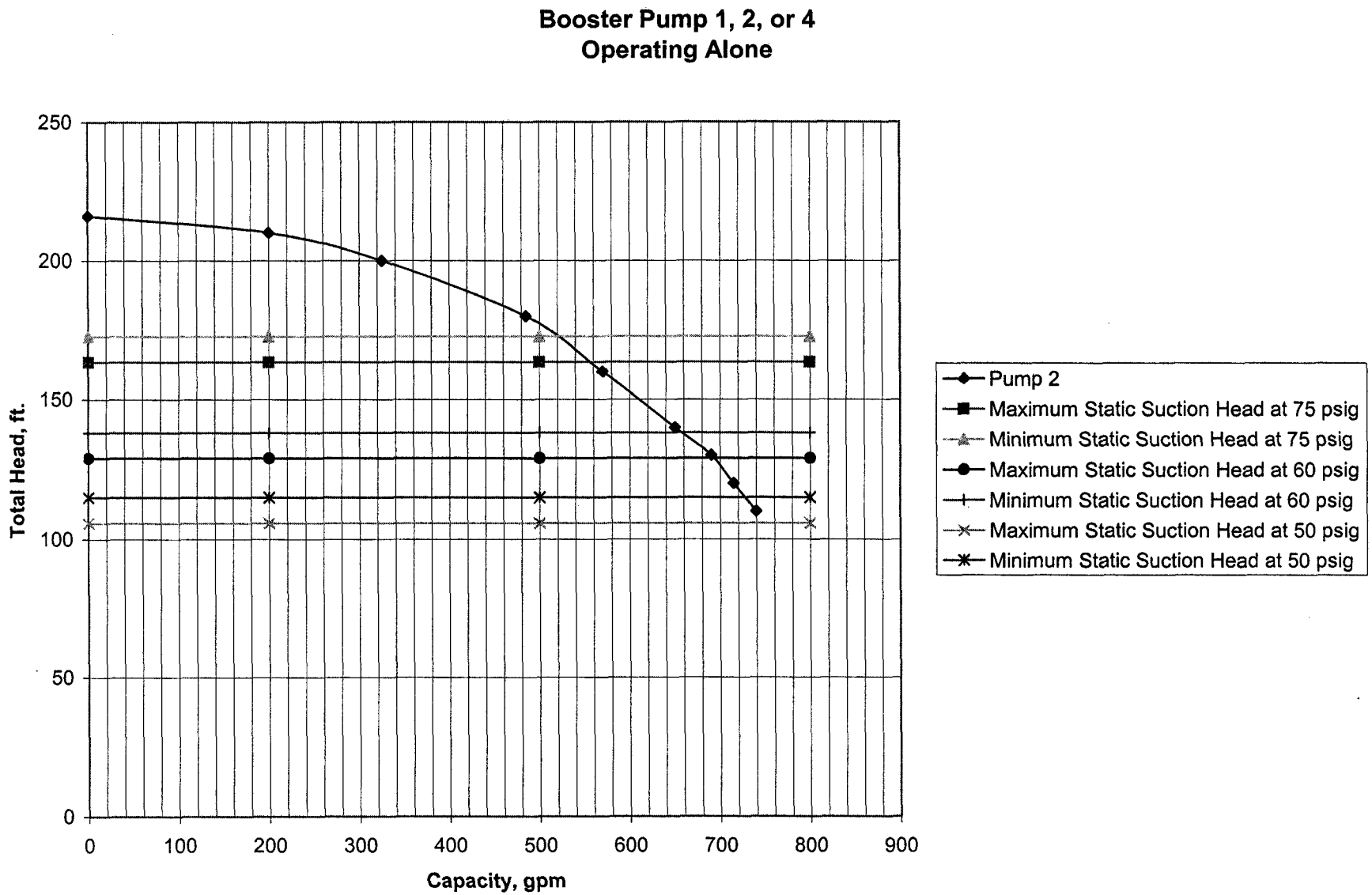
Booster Pumps 1, 2, 3 and 4 Operating




Booster Pumps 1, 2 and 4 Operating
Total Head, ft.
250
200
150
100
50
0
0
500
1000
1500
2000
2500
3000
3500
Capacity, gpm
Pumps 2, 3 and 4
Maximum Static Suction Head at 75 psig
Minimum Static Suction Head at 75 psig
Maximum Static Suction Head at 60 psig
Minimum Static Suction Head at 60 psig
Minimum Static Head at 50 psig


Booster Pumps 1 and 2
or Pumps 2 and 4 Operating
Total Head, ft.
250
200
150
100
50
0
0
500
1000
1500
2000
2500
3000
Capacity, gpm
Pumps 1 and 2
Maximum Static Suction Head at 75 psig
Minimum Static Suction Head at 75 psig
Maximum Static Suction Head at 60 psig
Minimum Static Suction Head at 60 psig
Maximum Static Suction Head at 50 psig
Minimum Static Head at 50 psig


Booster Pump 3 Operating Alone
Total Head, ft.
250
200
150
100
50
0
0
500
1000
1500
2000
2500
Capacity, gpm
Pump 3
Maximum Static Suction Head at 75 psig
Minimum Static Suction Head at 75 psig
Maximum Static Suction Head at 50 psig
Minimum Static Suction Head at 50 psig
Minimum Static Suction Head at 60 psig


Booster Pump 1, 2, or 4
Operating Alone
Total Head, ft.
250
200
150
100
50
0
0
100
200
300
400
500
600
700
800
900
Capacity, gpm
Pump 2
Maximum Static Suction Head at 75 psig
Minimum Static Suction Head at 75 psig
Maximum Static Suction Head at 60 psig
Minimum Static Suction Head at 60 psig
Maximum Static Suction Head at 50 psig
Minimum Static Suction Head at 50 psig

References

Reference	Title
1	Water Infrastructure Master Plan, City of Peoria, September 2001, Malcolm Pirnie, Inc.
2	Engineering Bulletin No. 10, Guidelines for the Construction of Water Systems, ADEQ, May 1978.
3	E-mail dated February 3, 2004, Steven Hader, Stantec to Charles Ballinger, Ballinger Consultants, P.C.
4	Fletcher Heights, Phase IV, Water System Analysis within New River Utility Co. Service Area, CMX Group Inc., June 1999
5	Arizona Administrative Code, Title 18, Chapter 4.

New River Utility Company
PWS No. 07051

Ballinger
8/22/2002

Booster Pumps

Pump 3
100 hp
B5EXPBH- 14.37" Impeller

Total Head, ft	Capacity, gpm
222	0
231	750
226	1000
216	1260
210	1375
200	1505
180	1690
160	1865
140	1940
130	1955
120	2075
110	2125

Pumps 1, 2, and 4
25 hp
B3ZPL- 7.250" Impeller

Total Head, ft	Capacity, gpm
222	0
231	0
226	0
216	0
210	200
200	325
180	485
160	570
140	650
130	690
120	715
110	740

Total Head, ft	Pump 3 Capacity, gpm	Pump 1 Capacity, gpm	Pumps 1 and 3 Pumps 2 and 3 or Pumps 3 and 4 Capacity, gpm	Pumps 1, 2 and 3 Capacity, gpm	Pumps 1, 2, 3, and 4 Capacity, gpm	Pumps 1, 2, and 4 Capacity, gpm	Pumps 1 and 2 or Pumps 2 and 4 Capacity, gpm
222	0	0	0	0	0		
231	750	0	750	750	750		
226	1000	0	1000	1000	1000		
216	1260	0	1260	1260	1260	0	0
210	1375	200	1575	1775	1975	600	400
200	1505	325	1830	2155	2480	975	650
180	1690	485	2175	2660	3145	1455	970
160	1865	570	2435	3005	3575	1710	1140
140	1940	650	2590	3240	3890	1950	1300
130	2025	690	2715	3405	4095	2070	1380
120	2075	715	2790	3505	4220	2145	1430
110	2125	740	2865	3605	4345	2220	1480

Operating Pressure

Maximum Static Suction Head, ft =	13.7
Minimum Static Suction Head, ft =	4.5

	Starting High	Starting Medium	Starting Low
Operating Pressure At Hydropneumatic Tank, psig =	75	60	50
Operating Pressure At Hydropneumatic Tank, ft =	173	139	116

At Maximum Static Suction Head For now add in 4.0 feet for dynamic losses and elevation differences

At 50 psig Total Head, ft	At 60 psig Total Head, ft	At 75 psig Total Head, ft	Pump 3 Capacity, gpm	Pump 1 Capacity, gpm	Pumps 1 and 3 Capacity, gpm	Pumps 1, 2 and 3 Capacity, gpm	Pumps 1, 2, 3, and 4 Capacity, gpm	Pumps 1, 2, and 4 Capacity, gpm	Pumps 1 and 2 or Pumps 2 and 4 Capacity, gpm
106	129	164	0	0	0	0	0	0	0
106	129	164	750	200	750	750	750	500	500
106	129	164	1375	500	1500	1775	2000	1000	1000
106	129	164	2300	800	3000	3600	4200	3000	2500

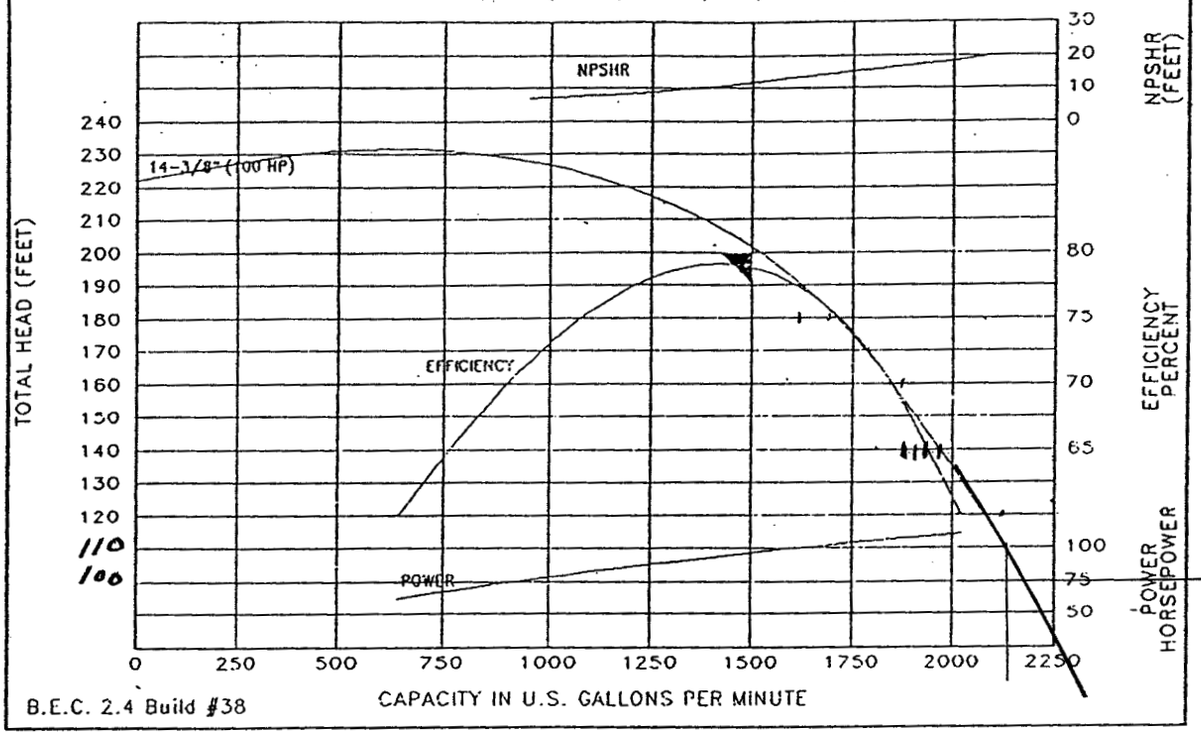
At Minimum Static Suction Head For now add in 4.0 feet for dynamic losses and elevation differences

At 50 psig Total Head, ft	At 60 psig Total Head, ft	At 75 psig Total Head, ft	Pump 3 Capacity, gpm	Pump 1 Capacity, gpm	Pumps 1 and 3 Capacity, gpm	Pumps 1, 2 and 3 Capacity, gpm	Pumps 1, 2, 3, and 4 Capacity, gpm	Pumps 1, 2, and 4 Capacity, gpm	Pumps 1 and 2 or Pumps 2 and 4 Capacity, gpm
115	138	173	0	0	0	0	0	0	0
115	138	173	750	200	750	750	750	500	500
115	138	173	1375	500	1500	1775	2000	1000	1000
115	138	173	2300	800	3000	3600	4200	3000	2500

Nominal RPM 1800

Based on Fresh Water @ 68 deg. F

Selected Imp Dia (Motor): 14-3/8" (100 HP)



B.E.C. 2.4 Build #38

SELECTION CONDITIONS

Flow:	1500.0 GPM	Priming Type:	Standard
Total Dynamic Head:	200.0 feet	Motor Loading:	Standard

PUMP DESCRIPTION

Pump Model:	B5EXPBH	Priming Type:	Standard
Impeller Diameter:	14.375 in.	Impeller Material:	Iron
Suction:	Flanged 6"x11"	Discharge:	Flanged 5"x10"
Shaft Seal:	Packing		

PUMP PERFORMANCE

Flow:	1500.0 GPM	Power:	96.9 BHP
Total Dynamic Head:	201.7 feet	Efficiency:	78.8 %
Nominal Speed:	1800 RPM	NPSHR:	11.8 feet
Shut-Off Head:	222.0 feet	Max Power:	111.0 BHP
Best Eff:	79.1 @ ***** GPM		

MOTOR

Size:	100 HP	Enclosure:	ODP
Voltage:	Consult Catalog/Factory	Hz/Phase:	60/3

PRICE/ORDER INFORMATION

Catalog No.:	B55988	List Price:	$ 10346
Weight:	1265 lbs.		

QUOTED BY:

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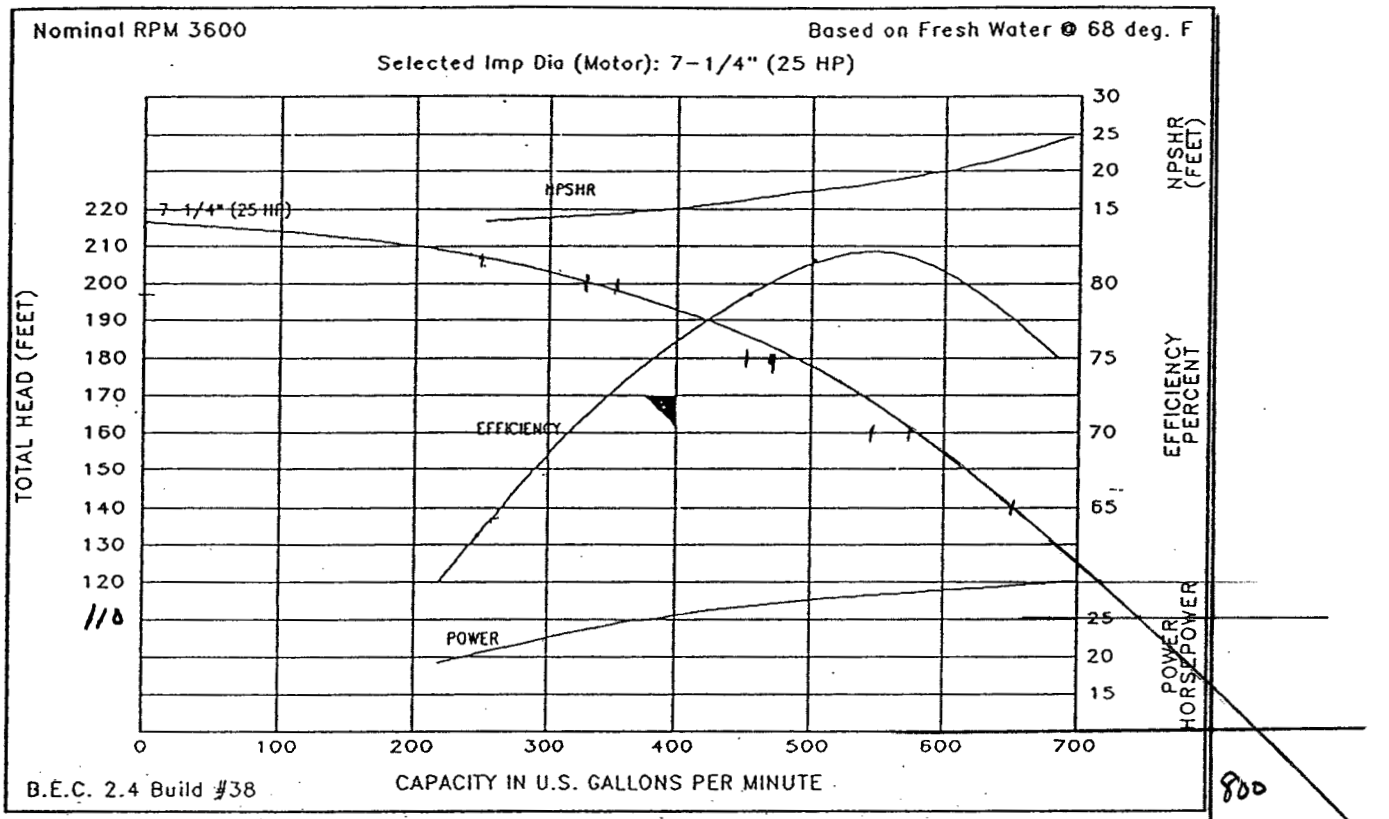
MOTOR DRIVE

B3ZPL



SELECTION CONDITIONS

Flow:	400.0 GPM	Priming Type:	Standard/Self Prime
Total Dynamic Head:	170.0 feet	Motor Loading:	Standard

PUMP DESCRIPTION

Pump Model:	B3ZPL	Priming Type:	Standard
Impeller Diameter:	7.250 in.	Impeller Material:	Iron
Suction:	4"NPT	Discharge:	3"NPT
Shaft Seal:	Packing		

PUMP PERFORMANCE

Flow:	400.0 GPM	Power:	25.6 BHP
Total Dynamic Head:	193.0 feet	Efficiency:	76.1 %
Nominal Speed:	3600 RPM	NPSHR:	15.1 feet
Shut-Off Head:	216.5 feet	Max Power:	29.9 BHP
Best Eff:	82.1 @ 545.8 GPM		

MOTOR

Size:	25 HP	Enclosure:	ODP
Voltage:	Consult Catalog/Factory	Hz/Phase:	60/3

PRICE/ORDER INFORMATION

Catalog No.:	B51635	List Price:	$ 2791
Weight:	405 lbs.		

QUOTED BY:

Enter your information here! It will be retained as the default when the program is next used.

QUOTED TO:

Enter information here!

New River Utility Company
PWS No. 07051

Ballinger
6/11/2004

BCPC WaterCAD Model Demands- For Master Planning Demands at Buildout with Expanded Service Area

Peaking Factors

Maximum Day = 2.00 X Average Day
Peak Hour = 3.50 X Average Day

Junction	Average Day Demand, gpm	Maximum Day Demand, gpm	Peak Hour Demand, gpm	
Current Certificated Area				
7	6.00	12	21	
8	6.00	12	21	
9	4.40	8.8	15.4	
13	5.20	10.4	18.2	
14	5.20	10.4	18.2	
16	5.60	11.2	19.6	
17	7.20	14.4	25.2	
19	23.44	46.88	82.04	
20	17.19	34.38	60.165	
23	25.00	50	87.5	
27	9.06	18.12	31.71	
29	14.06	28.12	49.21	
33	19.06	38.12	66.71	
35	10.31	20.62	36.085	
37	9.06	18.12	31.71	
38	0.00	0	0	No Junction 38
39	15.63	31.26	54.705	Placed on BCPC J-39
41	5.00	10	17.5	
43	5.00	10	17.5	
44	10.00	20	35	
46	10.63	21.26	37.205	
48	13.75	27.5	48.125	
50	9.00	18	31.5	
52	17.50	35	61.25	
65	4.00	8	14	
75	4.00	8	14	
90	19.20	38.4	67.2	
110	21.60	43.2	75.6	
130	15.60	31.2	54.6	
200	14.40	28.8	50.4	
240	16.80	33.6	58.8	
250	16.00	32	56	
280	9.60	19.2	33.6	
310	8.80	17.6	30.8	
320	4.00	8	14	
330	12.00	24	42	
335	5.60	11.2	19.6	
349	2.49	4.98	8.715	
350	3.60	7.2	12.6	
351	2.49	4.98	8.715	
352	2.49	4.98	8.715	
353	2.49	4.98	8.715	
354	2.49	4.98	8.715	
356	2.49	4.98	8.715	
357	2.49	4.98	8.715	
358	2.49	4.98	8.715	
359	2.49	4.98	8.715	
360	11.20	22.4	39.2	
361	2.49	4.98	8.715	
362	2.49	4.98	8.715	
363	2.49	4.98	8.715	
364	2.49	4.98	8.715	
365	11.50	23	40.25	
366	2.49	4.98	8.715	
367	2.49	4.98	8.715	
368	2.49	4.98	8.715	
369	2.49	4.98	8.715	
370	9.70	19.4	33.95	
371	2.49	4.98	8.715	
372	2.49	4.98	8.715	

Junction	Average Day Demand, gpm	Maximum Day Demand, gpm	Peak Hour Demand, gpm
373	2.49	4.98	8.715
374	2.49	4.98	8.715
375	2.49	4.98	8.715
376	2.49	4.98	8.715
377	2.49	4.98	8.715
378	2.49	4.98	8.715
379	2.49	4.98	8.715
381	8.00	16	28
382	8.00	16	28
383	8.00	16	28
390	5.20	10.4	18.2
396	22.99	45.98	80.465
398	0.00	0	0
400	3.20	6.4	11.2
404	3.13	6.26	10.955
405	3.29	6.58	11.515
410	4.40	8.8	15.4
413	6.08	12.16	21.28
425	3.65	7.3	12.775
427	6.82	13.64	23.87
428	2.53	5.06	8.855
429	2.53	5.06	8.855
430	7.60	15.2	26.6
435	7.20	14.4	25.2
436	14.37	28.74	50.295
437	3.65	7.3	12.775
440	9.60	19.2	33.6
470	3.20	6.4	11.2
475	7.50	15	26.25
485	4.80	9.6	16.8
500	5.60	11.2	19.6
530	12.40	24.8	43.4
560	16.40	32.8	57.4
580	13.20	26.4	46.2
610	5.20	10.4	18.2
680	19.60	39.2	68.6
760	19.20	38.4	67.2
770	16.80	33.6	58.8
785	12.00	24	42
810	12.40	24.8	43.4
860	20.80	41.6	72.8
870	1.60	3.2	5.6
880	2.40	4.8	8.4

Junction	Average Day Demand, gpm	Maximum Day Demand, gpm	Peak Hour Demand, gpm	
910	4.80	9.6	16.8	
930	8.40	16.8	29.4	
935	4.00	8	14	
945	7.60	15.2	26.6	
950	5.60	11.2	19.6	
960	11.20	22.4	39.2	
1000	94.00	188	329	
1030	39.60	79.2	138.6	Revised from CMX
1370	22.80	45.6	79.8	
1385	4.40	8.8	15.4	
1395	5.60	11.2	19.6	
1420	4.00	8	14	
1425	4.40	8.8	15.4	
1430	6.40	12.8	22.4	
1460	10.80	21.6	37.8	
1465	6.40	12.8	22.4	
1475	8.80	17.6	30.8	
1495	2.40	4.8	8.4	
1500	4.80	9.6	16.8	
1510	4.40	8.8	15.4	
1525	4.40	8.8	15.4	
1530	4.80	9.6	16.8	
2005	14.90	29.8	52.15	
2010	19.60	39.2	68.6	
2020	8.00	16	28	
2030	5.20	10.4	18.2	
2040	4.40	8.8	15.4	
2060	3.60	7.2	12.6	
2100	4.80	9.6	16.8	
2110	8.00	16	28	
2120	7.20	14.4	25.2	
2130	3.20	6.4	11.2	
2140	4.40	8.8	15.4	
2160	7.20	14.4	25.2	
2180	11.16	22.32	39.06	
2250	7.60	15.2	26.6	
2260	7.20	14.4	25.2	
2310	7.20	14.4	25.2	
2340	12.80	25.6	44.8	
2350	9.20	18.4	32.2	
2370	14.80	29.6	51.8	
2380	10.00	20	35	
2400	7.60	15.2	26.6	
2410	9.60	19.2	33.6	
2430	10.00	20	35	
2450	10.00	20	35	
2460	10.80	21.6	37.8	
2470	8.80	17.6	30.8	
2490	10.00	20	35	
2500	10.00	20	35	
2530	6.00	12	21	
3050	17.20	34.4	60.2	
3090	12.40	24.8	43.4	
3130	10.00	20	35	
3190	16.00	32	56	
3220	16.00	32	56	
3225	15.60	31.2	54.6	
3245	18.80	37.6	65.8	
3265	17.60	35.2	61.6	
3285	12.40	24.8	43.4	
3310	13.56	27.12	47.46	
3350	19.60	39.2	68.6	
3370	22.88	45.76	80.08	
3380	13.50	27	47.25	
3390	9.00	18	31.5	
3400	6.40	12.8	22.4	
3410	8.80	17.6	30.8	
Subtotal, gpm	1,561.57	3,123.14	5,465.50	
Subtotal, gpd	2,248,661	4,497,322	7,870,313	

Junction	Average Day Demand, gpm	Maximum Day Demand, gpm		Peak Hour Demand, gpm
Expanded Service Area				
Columbia Communities and Cody Farms				
385	3.2	6.4		11.2
386	3.6	7.2		12.6
387	5.2	10.4		18.2
389	2.0	4.0		7.0
392	1.2	2.4		4.2
394	2.4	4.8		8.4
395	1.2	2.4		4.2
397	3.2	6.4		11.2
401	2.4	4.8		8.4
402	4.0	8.0		14.0
403	1.6	3.2		5.6
408	3.2	6.4		11.2
409	2.0	4.0		7.0
411	2.8	5.6		9.8
414	2.4	4.8		8.4
415	3.6	7.2		12.6
416	4.0	8.0		14.0
417	1.6	3.2		5.6
418	1.6	3.2		5.6
419	3.2	6.4		11.2
421	2.4	4.8		8.4
422	3.2	6.4		11.2
423	2.8	5.6		9.8
424	1.6	3.2		5.6
5001	2.4	4.8		8.4
Subtotal, gpm	66.80	133.60	-	233.80
Subtotal, gpd	96,192	192,384		336,672
Total, gpm	1,628.37	3,256.74	-	5,699.30
Total, gpd	2,344,853	4,689,706		8,206,985

APPENDIX B
WATERCAD MODEL RESULTS

AVERAGE DAY DEMAND

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1	45.00	Demand	0.00	Fixed	0.00	217.33	74.56
J-2	38.00	Demand	0.00	Fixed	0.00	217.22	77.54
J-3	37.00	Demand	0.00	Fixed	0.00	217.21	77.97
J-5	43.00	Demand	0.00	Fixed	0.00	217.22	75.38
J-6	43.00	Demand	0.00	Fixed	0.00	217.26	75.39
J-7	43.00	Demand	6.00	Fixed	6.00	217.22	75.37
J-8	47.00	Demand	6.00	Fixed	6.00	217.21	73.64
J-9	47.00	Demand	4.40	Fixed	4.40	217.21	73.64
J-10	63.34	Demand	0.00	Fixed	0.00	217.83	66.84
J-11	45.20	Demand	0.00	Fixed	0.00	217.21	74.42
J-12	44.00	Demand	0.00	Fixed	0.00	217.21	74.94
J-13	46.00	Demand	5.20	Fixed	5.20	217.21	74.08
J-14	45.00	Demand	5.20	Fixed	5.20	217.21	74.51
J-15	40.00	Demand	0.00	Fixed	0.00	217.21	76.67
J-16	40.00	Demand	5.60	Fixed	5.60	217.21	76.67
J-17	40.00	Demand	7.20	Fixed	7.20	217.21	76.67
J-18	37.00	Demand	0.00	Fixed	0.00	217.20	77.96
J-19	38.00	Demand	23.44	Fixed	23.44	217.19	77.53
J-20	50.91	Demand	17.19	Fixed	17.19	217.42	72.04
J-21	37.00	Demand	0.00	Fixed	0.00	217.18	77.96
J-22	37.00	Demand	0.00	Fixed	0.00	217.18	77.96
J-23	40.00	Demand	25.00	Fixed	25.00	217.18	76.66
J-24	37.00	Demand	0.00	Fixed	0.00	217.18	77.96
J-25	37.00	Demand	0.00	Fixed	0.00	217.18	77.96
J-26	37.00	Demand	0.00	Fixed	0.00	217.18	77.96
J-27	39.00	Demand	9.06	Fixed	9.06	217.18	77.09
J-28	39.00	Demand	0.00	Fixed	0.00	217.18	77.09
J-29	39.00	Demand	14.06	Fixed	14.06	217.18	77.09
J-30	66.90	Demand	0.00	Fixed	0.00	217.54	65.18
J-31	40.00	Demand	0.00	Fixed	0.00	217.18	76.66
J-32	40.00	Demand	0.00	Fixed	0.00	217.18	76.66
J-33	45.00	Demand	19.06	Fixed	19.06	217.19	74.50
J-34	40.00	Demand	0.00	Fixed	0.00	217.19	76.66
J-35	40.00	Demand	10.31	Fixed	10.31	217.18	76.66
J-36	40.00	Demand	0.00	Fixed	0.00	217.19	76.66
J-37	38.00	Demand	9.06	Fixed	9.06	217.19	77.53
J-39	43.00	Demand	15.63	Fixed	15.63	217.26	75.39
J-40	70.52	Demand	0.00	Fixed	0.00	217.50	63.59
J-40A	70.00	Demand	0.00	Fixed	0.00	217.48	63.81
J-41	47.00	Demand	5.00	Fixed	5.00	217.26	73.66
J-42	43.00	Demand	0.00	Fixed	0.00	217.27	75.40
J-43	50.00	Demand	5.00	Fixed	5.00	217.28	72.37
J-44	47.00	Demand	10.00	Fixed	10.00	217.28	73.67
J-45	50.00	Demand	0.00	Fixed	0.00	217.27	72.37
J-46	50.00	Demand	10.63	Fixed	10.63	217.26	72.37
J-47	49.00	Demand	0.00	Fixed	0.00	217.26	72.80
J-48	49.00	Demand	13.75	Fixed	13.75	217.26	72.80
J-50	70.72	Demand	9.00	Fixed	9.00	217.48	63.50
J-52	47.00	Demand	17.50	Fixed	17.50	217.25	73.66
J-55	56.31	Demand	0.00	Fixed	0.00	217.46	69.72
J-60	78.00	Demand	0.00	Fixed	0.00	217.48	60.35
J-65	79.06	Demand	4.00	Fixed	4.00	217.46	59.88

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-70	72.52	Demand	0.00	Fixed	0.00	217.48	62.72
J-75	74.14	Demand	4.00	Fixed	4.00	217.47	62.01
J-80	74.00	Demand	0.00	Fixed	0.00	217.48	62.08
J-90	72.14	Demand	19.20	Fixed	19.20	217.48	62.88
J-100	71.87	Demand	0.00	Fixed	0.00	217.49	63.00
J-110	72.60	Demand	21.60	Fixed	21.60	217.48	62.68
J-120	74.07	Demand	0.00	Fixed	0.00	217.48	62.05
J-130	75.25	Demand	15.60	Fixed	15.60	217.48	61.54
J-130A	74.00	Demand	0.00	Fixed	0.00	217.48	62.08
J-140	75.56	Demand	0.00	Fixed	0.00	217.48	61.40
J-150	75.14	Demand	0.00	Fixed	0.00	217.48	61.58
J-160	76.01	Demand	0.00	Fixed	0.00	217.48	61.21
J-170	74.37	Demand	0.00	Fixed	0.00	217.48	61.92
J-180	68.38	Demand	0.00	Fixed	0.00	217.49	64.51
J-190	69.42	Demand	0.00	Fixed	0.00	217.49	64.06
J-200	70.84	Demand	14.40	Fixed	14.40	217.51	63.46
J-210	70.31	Demand	0.00	Fixed	0.00	217.50	63.68
J-220	72.57	Demand	0.00	Fixed	0.00	217.49	62.70
J-230	72.90	Demand	0.00	Fixed	0.00	217.48	62.55
J-240	74.23	Demand	16.80	Fixed	16.80	217.48	61.98
J-250	71.50	Demand	16.00	Fixed	16.00	217.48	63.16
J-260	70.38	Demand	0.00	Fixed	0.00	217.48	63.64
J-270	72.61	Demand	0.00	Fixed	0.00	217.48	62.68
J-280	74.73	Demand	9.60	Fixed	9.60	217.48	61.76
J-290	75.43	Demand	0.00	Fixed	0.00	217.48	61.46
J-296	49.00	Demand	0.00	Fixed	0.00	217.26	72.80
J-298	49.00	Demand	0.00	Fixed	0.00	217.25	72.80
J-300	64.72	Demand	0.00	Fixed	0.00	217.37	66.04
J-302	43.00	Demand	0.00	Fixed	0.00	217.26	75.39
J-306	43.00	Demand	0.00	Fixed	0.00	217.22	75.38
J-310	64.12	Demand	8.80	Fixed	8.80	217.37	66.30
J-320	68.92	Demand	4.00	Fixed	4.00	217.44	64.26
J-330	67.86	Demand	12.00	Fixed	12.00	217.39	64.69
J-335	66.84	Demand	5.60	Fixed	5.60	217.39	65.13
J-340	65.40	Demand	0.00	Fixed	0.00	217.39	65.76
J-344	65.00	Demand	0.00	Fixed	0.00	217.55	66.00
J-345	58.00	Demand	0.00	Fixed	0.00	219.79	70.00
J-346	81.00	Demand	0.00	Fixed	0.00	275.00	83.93
J-347	80.00	Demand	0.00	Fixed	0.00	217.40	59.45
J-348	80.00	Demand	0.00	Fixed	0.00	217.40	59.45
J-349	48.00	Demand	2.49	Fixed	2.49	218.23	73.65
J-350	63.00	Demand	3.60	Fixed	3.60	217.37	66.79
J-351	49.00	Demand	2.49	Fixed	2.49	218.22	73.21
J-352	52.00	Demand	2.49	Fixed	2.49	218.30	71.95
J-353	53.20	Demand	2.49	Fixed	2.49	218.27	71.42
J-354	49.75	Demand	2.49	Fixed	2.49	218.26	72.91
J-355	61.46	Demand	0.00	Fixed	0.00	217.37	67.46
J-356	49.50	Demand	2.49	Fixed	2.49	218.26	73.02
J-357	48.50	Demand	2.49	Fixed	2.49	218.25	73.44
J-358	53.50	Demand	2.49	Fixed	2.49	218.33	71.31
J-359	52.00	Demand	2.49	Fixed	2.49	218.29	71.95
J-360	61.63	Demand	11.20	Fixed	11.20	217.31	67.35

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-360A	61.00	Demand	0.00	Fixed	0.00	217.31	67.63
J-361	55.00	Demand	2.49	Fixed	2.49	218.30	70.65
J-362	54.00	Demand	2.49	Fixed	2.49	218.30	71.08
J-363	54.50	Demand	2.49	Fixed	2.49	218.30	70.87
J-364	56.00	Demand	2.49	Fixed	2.49	218.30	70.22
J-365	58.65	Demand	11.50	Fixed	11.50	217.31	68.64
J-365A	58.00	Demand	0.00	Fixed	0.00	217.29	68.92
J-366	56.00	Demand	2.49	Fixed	2.49	218.31	70.22
J-367	57.00	Demand	2.49	Fixed	2.49	218.30	69.79
J-368	53.00	Demand	2.49	Fixed	2.49	218.29	71.51
J-369	52.50	Demand	2.49	Fixed	2.49	218.27	71.72
J-370	66.22	Demand	9.70	Fixed	9.70	217.38	65.40
J-371	50.00	Demand	2.49	Fixed	2.49	218.26	72.80
J-372	48.50	Demand	2.49	Fixed	2.49	218.23	73.43
J-373	51.50	Demand	2.49	Fixed	2.49	218.27	72.16
J-374	50.50	Demand	2.49	Fixed	2.49	218.26	72.58
J-375	50.00	Demand	2.49	Fixed	2.49	218.25	72.79
J-376	49.50	Demand	2.49	Fixed	2.49	218.25	73.01
J-377	48.70	Demand	2.49	Fixed	2.49	218.25	73.36
J-378	49.00	Demand	2.49	Fixed	2.49	218.25	73.23
J-379	48.70	Demand	2.49	Fixed	2.49	218.25	73.36
J-380	66.43	Demand	0.00	Fixed	0.00	217.42	65.33
J-381	41.70	Demand	8.00	Fixed	8.00	217.33	75.99
J-382	38.30	Demand	8.00	Fixed	8.00	217.33	77.46
J-383	33.00	Demand	8.00	Fixed	8.00	217.33	79.75
J-384	41.70	Demand	0.00	Fixed	0.00	275.00	100.94
J-385	65.00	Demand	3.20	Fixed	3.20	217.38	65.93
J-386	66.00	Demand	3.60	Fixed	3.60	217.39	65.50
J-387	66.00	Demand	5.20	Fixed	5.20	217.40	65.50
J-388	74.10	Demand	0.00	Fixed	0.00	217.52	62.05
J-389	74.20	Demand	2.00	Fixed	2.00	217.46	61.98
J-390	64.79	Demand	5.20	Fixed	5.20	217.37	66.02
J-392	64.00	Demand	1.20	Fixed	1.20	217.37	66.36
J-394	66.00	Demand	2.40	Fixed	2.40	217.40	65.50
J-395	67.20	Demand	1.20	Fixed	1.20	217.40	64.98
J-396	73.00	Demand	22.99	Fixed	22.99	217.39	62.47
J-397	75.70	Demand	3.20	Fixed	3.20	217.47	61.34
J-398	77.00	Demand	0.00	Fixed	0.00	217.46	60.77
J-399	77.00	Demand	0.00	Fixed	0.00	217.42	60.75
J-400	63.46	Demand	3.20	Fixed	3.20	217.37	66.59
J-401	77.00	Demand	2.40	Fixed	2.40	217.47	60.78
J-402	75.00	Demand	4.00	Fixed	4.00	217.49	61.65
J-403	67.00	Demand	1.60	Fixed	1.60	217.40	65.07
J-404	74.60	Demand	3.13	Fixed	3.13	217.39	61.78
J-405	76.20	Demand	3.29	Fixed	3.29	217.40	61.09
J-406	41.70	Demand	0.00	Fixed	0.00	275.00	100.94
J-407	81.00	Demand	0.00	Fixed	0.00	217.40	59.01
J-408	73.00	Demand	3.20	Fixed	3.20	217.48	62.51
J-409	73.00	Demand	2.00	Fixed	2.00	217.51	62.52
J-410	63.00	Demand	4.40	Fixed	4.40	217.37	66.79
J-411	73.00	Demand	2.80	Fixed	2.80	217.48	62.51
J-412	71.00	Demand	0.00	Fixed	0.00	217.47	63.37

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-413	76.00	Demand	6.08	Fixed	6.08	217.40	61.18
J-414	67.00	Demand	2.40	Fixed	2.40	217.43	65.08
J-415	73.00	Demand	3.60	Fixed	3.60	217.40	62.47
J-416	68.00	Demand	4.00	Fixed	4.00	217.40	64.64
J-417	67.00	Demand	1.60	Fixed	1.60	217.40	65.07
J-418	67.00	Demand	1.60	Fixed	1.60	217.40	65.07
J-419	67.00	Demand	3.20	Fixed	3.20	217.39	65.07
J-420	63.00	Demand	0.00	Fixed	0.00	217.35	66.78
J-421	66.00	Demand	2.40	Fixed	2.40	217.40	65.50
J-422	64.00	Demand	3.20	Fixed	3.20	217.39	66.36
J-423	65.00	Demand	2.80	Fixed	2.80	217.39	65.93
J-424	64.00	Demand	1.60	Fixed	1.60	217.38	66.36
J-425	73.00	Demand	3.65	Fixed	3.65	217.39	62.47
J-426	72.00	Demand	0.00	Fixed	0.00	217.39	62.91
J-427	72.00	Demand	6.82	Fixed	6.82	217.39	62.91
J-428	72.00	Demand	2.53	Fixed	2.53	217.39	62.91
J-429	74.00	Demand	2.53	Fixed	2.53	217.39	62.04
J-430	60.90	Demand	7.60	Fixed	7.60	217.30	67.67
J-431	75.00	Demand	0.00	Fixed	0.00	217.40	61.61
J-433	76.00	Demand	0.00	Fixed	0.00	217.40	61.18
J-434	76.00	Demand	0.00	Fixed	0.00	217.40	61.18
J-435	61.60	Demand	7.20	Fixed	7.20	217.31	67.37
J-435A	61.00	Demand	0.00	Fixed	0.00	217.31	67.63
J-436	74.00	Demand	14.37	Fixed	14.37	217.39	62.04
J-437	74.00	Demand	3.65	Fixed	3.65	217.39	62.04
J-438	76.00	Demand	0.00	Fixed	0.00	217.40	61.18
J-439	64.00	Demand	0.00	Fixed	0.00	217.36	66.35
J-440	60.59	Demand	9.60	Fixed	9.60	217.31	67.81
J-441	56.00	Demand	0.00	Fixed	0.00	217.32	69.79
J-442	54.00	Demand	0.00	Fixed	0.00	217.30	70.65
J-450	59.29	Demand	0.00	Fixed	0.00	217.30	68.36
J-450A	59.00	Demand	0.00	Fixed	0.00	217.30	68.49
J-470	58.00	Demand	3.20	Fixed	3.20	217.30	68.92
J-475	57.16	Demand	7.50	Fixed	7.50	217.30	69.29
J-480	59.15	Demand	0.00	Fixed	0.00	217.30	68.42
J-485	58.66	Demand	4.80	Fixed	4.80	217.30	68.64
J-490	59.97	Demand	0.00	Fixed	0.00	217.31	68.07
J-500	63.34	Demand	5.60	Fixed	5.60	217.39	66.65
J-510	64.22	Demand	0.00	Fixed	0.00	217.39	66.27
J-520	63.00	Demand	0.00	Fixed	0.00	217.39	66.80
J-520A	63.00	Demand	0.00	Fixed	0.00	217.39	66.80
J-530	61.57	Demand	12.40	Fixed	12.40	217.39	67.42
J-540	64.71	Demand	0.00	Fixed	0.00	217.39	66.06
J-550	67.29	Demand	0.00	Fixed	0.00	217.39	64.94
J-560	66.05	Demand	16.40	Fixed	16.40	217.39	65.48
J-570	66.00	Demand	0.00	Fixed	0.00	217.40	65.50
J-580	64.21	Demand	13.20	Fixed	13.20	217.39	66.27
J-590	63.12	Demand	0.00	Fixed	0.00	217.39	66.75
J-600	69.08	Demand	0.00	Fixed	0.00	217.41	64.18
J-610	67.88	Demand	5.20	Fixed	5.20	217.41	64.70
J-620	55.00	Demand	0.00	Fixed	0.00	217.29	70.21
J-630	49.99	Demand	0.00	Fixed	0.00	217.28	72.38

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-635	48.00	Demand	0.00	Fixed	0.00	217.28	73.24
J-640	55.00	Demand	0.00	Fixed	0.00	217.29	70.21
J-650	56.23	Demand	0.00	Fixed	0.00	217.29	69.68
J-660	52.32	Demand	0.00	Fixed	0.00	217.29	71.37
J-670	53.48	Demand	0.00	Fixed	0.00	217.29	70.87
J-680	58.46	Demand	19.60	Fixed	19.60	217.29	68.72
J-700	58.75	Demand	0.00	Fixed	0.00	217.30	68.60
J-710	57.28	Demand	0.00	Fixed	0.00	217.30	69.23
J-720	54.01	Demand	0.00	Fixed	0.00	217.29	70.65
J-730	55.06	Demand	0.00	Fixed	0.00	217.29	70.19
J-740	57.00	Demand	0.00	Fixed	0.00	217.29	69.35
J-750	55.01	Demand	0.00	Fixed	0.00	217.29	70.21
J-750A	55.00	Demand	0.00	Fixed	0.00	217.29	70.22
J-760	51.15	Demand	19.20	Fixed	19.20	217.29	71.88
J-770	51.19	Demand	16.80	Fixed	16.80	217.28	71.86
J-780	47.22	Demand	0.00	Fixed	0.00	217.28	73.58
J-785	50.53	Demand	12.00	Fixed	12.00	217.28	72.14
J-790	49.86	Demand	0.00	Fixed	0.00	217.28	72.44
J-800	48.00	Demand	0.00	Fixed	0.00	217.28	73.24
J-810	48.24	Demand	12.40	Fixed	12.40	217.28	73.14
J-820	48.27	Demand	0.00	Fixed	0.00	217.28	73.12
J-830	49.28	Demand	0.00	Fixed	0.00	217.28	72.69
J-840	50.00	Demand	0.00	Fixed	0.00	217.30	72.38
J-845	48.00	Demand	0.00	Fixed	0.00	217.29	73.25
J-850	58.38	Demand	0.00	Fixed	0.00	217.29	68.75
J-860	53.78	Demand	20.80	Fixed	20.80	217.27	70.74
J-870	53.89	Demand	1.60	Fixed	1.60	217.27	70.69
J-880	51.19	Demand	2.40	Fixed	2.40	217.28	71.86
J-890	51.00	Demand	0.00	Fixed	0.00	217.28	71.94
J-900	49.92	Demand	0.00	Fixed	0.00	217.28	72.41
J-910	51.66	Demand	4.80	Fixed	4.80	217.28	71.65
J-920	52.29	Demand	0.00	Fixed	0.00	217.28	71.38
J-930	55.00	Demand	8.40	Fixed	8.40	217.27	70.21
J-935	55.00	Demand	4.00	Fixed	4.00	217.27	70.21
J-940	51.83	Demand	0.00	Fixed	0.00	217.27	71.58
J-945	55.86	Demand	7.60	Fixed	7.60	217.27	69.83
J-950	48.48	Demand	5.60	Fixed	5.60	217.28	73.03
J-960	53.74	Demand	11.20	Fixed	11.20	217.27	70.75
J-970	48.18	Demand	0.00	Fixed	0.00	217.28	73.16
J-980	70.85	Demand	0.00	Fixed	0.00	217.53	63.46
J-990	64.17	Demand	0.00	Fixed	0.00	217.64	66.40
J-1000	66.35	Demand	94.00	Fixed	94.00	217.47	65.38
J-1010	94.62	Demand	0.00	Fixed	0.00	217.54	53.18
J-1020	70.20	Demand	0.00	Fixed	0.00	217.53	63.74
J-1030	70.00	Demand	39.60	Fixed	39.60	217.53	63.83
J-1070	70.00	Demand	0.00	Fixed	0.00	217.53	63.83
J-1080	72.75	Demand	0.00	Fixed	0.00	217.52	62.63
J-1120	65.00	Demand	0.00	Fixed	0.00	217.54	66.00
J-1330	65.10	Demand	0.00	Fixed	0.00	217.56	65.96
J-1335	68.70	Demand	0.00	Fixed	0.00	217.54	64.40
J-1345	61.40	Demand	0.00	Fixed	0.00	217.61	67.59
J-1370	72.70	Demand	22.80	Fixed	22.80	217.56	62.67

Scenario: Average Day, 70 psig at Hydro Tank
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Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1380	72.80	Demand	0.00	Fixed	0.00	217.56	62.63
J-1385	73.00	Demand	4.40	Fixed	4.40	217.55	62.54
J-1390	74.00	Demand	0.00	Fixed	0.00	217.55	62.11
J-1395	74.50	Demand	5.60	Fixed	5.60	217.55	61.89
J-1405	72.60	Demand	0.00	Fixed	0.00	217.60	62.73
J-1410	75.40	Demand	0.00	Fixed	0.00	217.55	61.50
J-1415	73.90	Demand	0.00	Fixed	0.00	217.55	62.15
J-1420	72.70	Demand	4.00	Fixed	4.00	217.55	62.67
J-1425	72.10	Demand	4.40	Fixed	4.40	217.55	62.93
J-1430	72.00	Demand	6.40	Fixed	6.40	217.55	62.97
J-1435	72.20	Demand	0.00	Fixed	0.00	217.55	62.89
J-1440	72.20	Demand	0.00	Fixed	0.00	217.55	62.89
J-1445	72.20	Demand	0.00	Fixed	0.00	217.55	62.89
J-1450	72.80	Demand	0.00	Fixed	0.00	217.57	62.63
J-1455	72.90	Demand	0.00	Fixed	0.00	217.56	62.59
J-1460	72.80	Demand	10.80	Fixed	10.80	217.56	62.63
J-1465	71.20	Demand	6.40	Fixed	6.40	217.56	63.32
J-1475	70.40	Demand	8.80	Fixed	8.80	217.57	63.67
J-1490	57.90	Demand	0.00	Fixed	0.00	217.72	69.15
J-1495	63.30	Demand	2.40	Fixed	2.40	217.99	66.93
J-1500	65.80	Demand	4.80	Fixed	4.80	217.72	65.73
J-1505	59.40	Demand	0.00	Fixed	0.00	217.70	68.49
J-1510	67.20	Demand	4.40	Fixed	4.40	217.68	65.10
J-1515	67.20	Demand	0.00	Fixed	0.00	217.66	65.10
J-1520	67.30	Demand	0.00	Fixed	0.00	217.65	65.05
J-1525	68.70	Demand	4.40	Fixed	4.40	217.63	64.44
J-1530	64.40	Demand	4.80	Fixed	4.80	217.90	66.41
J-1535	64.20	Demand	0.00	Fixed	0.00	217.90	66.50
J-2000	79.46	Demand	0.00	Fixed	0.00	217.41	59.68
J-2005	72.85	Demand	14.90	Fixed	14.90	217.50	62.58
J-2010	80.79	Demand	19.60	Fixed	19.60	217.41	59.11
J-2020	82.53	Demand	8.00	Fixed	8.00	217.41	58.36
J-2030	83.82	Demand	5.20	Fixed	5.20	217.42	57.80
J-2040	82.91	Demand	4.40	Fixed	4.40	217.43	58.20
J-2050	82.01	Demand	0.00	Fixed	0.00	217.43	58.59
J-2060	81.43	Demand	3.60	Fixed	3.60	217.46	58.85
J-2070	81.68	Demand	0.00	Fixed	0.00	217.41	58.72
J-2080	82.32	Demand	0.00	Fixed	0.00	217.41	58.45
J-2090	80.95	Demand	0.00	Fixed	0.00	217.41	59.04
J-2100	84.12	Demand	4.80	Fixed	4.80	217.41	57.67
J-2110	79.47	Demand	8.00	Fixed	8.00	217.25	59.61
J-2120	82.68	Demand	7.20	Fixed	7.20	217.12	58.17
J-2130	84.45	Demand	3.20	Fixed	3.20	217.12	57.40
J-2140	82.29	Demand	4.40	Fixed	4.40	217.10	58.32
J-2150	83.99	Demand	0.00	Fixed	0.00	217.10	57.59
J-2160	82.01	Demand	7.20	Fixed	7.20	217.08	58.44
J-2170	83.80	Demand	0.00	Fixed	0.00	217.08	57.66
J-2180	72.01	Demand	11.16	Fixed	11.16	217.07	62.76
J-2190	77.29	Demand	0.00	Fixed	0.00	217.40	60.62
J-2200	78.51	Demand	0.00	Fixed	0.00	217.22	60.01
J-2210	80.07	Demand	0.00	Fixed	0.00	217.00	59.24
J-2220	81.56	Demand	0.00	Fixed	0.00	216.95	58.58

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-2230	83.62	Demand	0.00	Fixed	0.00	216.91	57.67
J-2240	87.60	Demand	0.00	Fixed	0.00	216.89	55.94
J-2250	86.42	Demand	7.60	Fixed	7.60	216.89	56.45
J-2260	78.00	Demand	7.20	Fixed	7.20	217.03	60.15
J-2270	77.33	Demand	0.00	Fixed	0.00	217.03	60.44
J-2280	77.87	Demand	0.00	Fixed	0.00	217.01	60.20
J-2290	79.32	Demand	0.00	Fixed	0.00	217.00	59.57
J-2300	78.24	Demand	0.00	Fixed	0.00	217.00	60.03
J-2310	78.74	Demand	7.20	Fixed	7.20	216.98	59.81
J-2320	78.00	Demand	0.00	Fixed	0.00	216.98	60.13
J-2330	80.36	Demand	0.00	Fixed	0.00	216.98	59.11
J-2340	79.84	Demand	12.80	Fixed	12.80	216.98	59.33
J-2350	81.49	Demand	9.20	Fixed	9.20	216.95	58.61
J-2360	81.99	Demand	0.00	Fixed	0.00	216.95	58.39
J-2370	82.95	Demand	14.80	Fixed	14.80	216.92	57.96
J-2380	79.53	Demand	10.00	Fixed	10.00	216.89	59.43
J-2400	86.00	Demand	7.60	Fixed	7.60	216.89	56.63
J-2410	87.00	Demand	9.60	Fixed	9.60	216.89	56.20
J-2420	83.42	Demand	0.00	Fixed	0.00	216.90	57.75
J-2430	86.38	Demand	10.00	Fixed	10.00	216.89	56.46
J-2440	86.80	Demand	0.00	Fixed	0.00	216.89	56.28
J-2450	87.00	Demand	10.00	Fixed	10.00	216.89	56.20
J-2460	89.31	Demand	10.80	Fixed	10.80	216.88	55.19
J-2470	90.96	Demand	8.80	Fixed	8.80	216.88	54.48
J-2480	90.00	Demand	0.00	Fixed	0.00	216.88	54.90
J-2490	90.00	Demand	10.00	Fixed	10.00	216.88	54.90
J-2500	90.45	Demand	10.00	Fixed	10.00	216.88	54.70
J-2510	88.61	Demand	0.00	Fixed	0.00	216.88	55.50
J-2520	88.42	Demand	0.00	Fixed	0.00	216.88	55.58
J-2530	87.41	Demand	6.00	Fixed	6.00	216.89	56.02
J-2540	87.15	Demand	0.00	Fixed	0.00	216.89	56.13
J-2560	83.29	Demand	0.00	Fixed	0.00	216.89	57.80
J-3000	58.00	Demand	0.00	Fixed	0.00	219.78	69.99
J-3010	56.98	Demand	0.00	Fixed	0.00	218.04	69.68
J-3030	58.28	Demand	0.00	Fixed	0.00	218.94	69.51
J-3040	62.88	Demand	0.00	Fixed	0.00	217.98	67.11
J-3050	59.32	Demand	17.20	Fixed	17.20	218.31	68.79
J-3060	61.77	Demand	0.00	Fixed	0.00	218.14	67.65
J-3080	59.48	Demand	0.00	Fixed	0.00	218.14	68.64
J-3090	59.34	Demand	12.40	Fixed	12.40	218.06	68.67
J-3095	58.72	Demand	0.00	Fixed	0.00	218.04	68.93
J-3100	58.88	Demand	0.00	Fixed	0.00	218.01	68.85
J-3110	61.00	Demand	0.00	Fixed	0.00	217.98	67.92
J-3120	60.39	Demand	0.00	Fixed	0.00	217.95	68.17
J-3130	48.01	Demand	10.00	Fixed	10.00	218.16	73.61
J-3140	50.20	Demand	0.00	Fixed	0.00	218.18	72.68
J-3150	51.44	Demand	0.00	Fixed	0.00	218.13	72.12
J-3160	53.00	Demand	0.00	Fixed	0.00	218.13	71.44
J-3170	50.11	Demand	0.00	Fixed	0.00	218.12	72.69
J-3180	49.07	Demand	0.00	Fixed	0.00	218.12	73.14
J-3190	50.06	Demand	16.00	Fixed	16.00	218.12	72.71
J-3200	55.32	Demand	0.00	Fixed	0.00	218.12	70.44

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-3210	55.87	Demand	0.00	Fixed	0.00	218.14	70.21
J-3220	54.25	Demand	16.00	Fixed	16.00	218.17	70.92
J-3225	54.24	Demand	15.60	Fixed	15.60	218.20	70.94
J-3230	55.08	Demand	0.00	Fixed	0.00	218.28	70.61
J-3240	56.90	Demand	0.00	Fixed	0.00	218.23	69.80
J-3245	56.71	Demand	18.80	Fixed	18.80	218.17	69.86
J-3250	55.40	Demand	0.00	Fixed	0.00	218.15	70.42
J-3260	55.61	Demand	0.00	Fixed	0.00	218.25	70.37
J-3265	55.50	Demand	17.60	Fixed	17.60	218.17	70.38
J-3270	54.08	Demand	0.00	Fixed	0.00	218.42	71.10
J-3275	51.00	Demand	0.00	Fixed	0.00	218.21	72.35
J-3280	51.98	Demand	0.00	Fixed	0.00	218.14	71.89
J-3285	52.18	Demand	12.40	Fixed	12.40	218.15	71.81
J-3290	49.48	Demand	0.00	Fixed	0.00	218.16	72.98
J-3300	49.59	Demand	0.00	Fixed	0.00	218.17	72.94
J-3310	50.62	Demand	13.56	Fixed	13.56	218.15	72.48
J-3320	51.05	Demand	0.00	Fixed	0.00	218.17	72.31
J-3330	61.03	Demand	0.00	Fixed	0.00	218.22	68.01
J-3340	59.54	Demand	0.00	Fixed	0.00	218.22	68.65
J-3350	59.70	Demand	19.60	Fixed	19.60	218.02	68.50
J-3360	61.10	Demand	0.00	Fixed	0.00	218.02	67.89
J-3370	55.12	Demand	22.88	Fixed	22.88	217.86	70.41
J-3380	55.04	Demand	13.50	Fixed	13.50	217.86	70.44
J-3390	54.92	Demand	9.00	Fixed	9.00	217.86	70.50
J-3400	49.53	Demand	6.40	Fixed	6.40	218.16	72.96
J-3410	50.82	Demand	8.80	Fixed	8.80	218.15	72.40
J-3420	58.00	Demand	0.00	Fixed	0.00	219.56	69.90
J-5000	76.20	Demand	0.00	Fixed	0.00	217.40	61.09
J-5001	63.00	Demand	2.40	Fixed	2.40	217.39	66.80

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-1	1,577.00	12.0	130.0	0.00	Open	-124.12	0.05	0.08	0.35
P-2	458.00	8.0	130.0	0.00	Open	-100.12	0.26	0.12	0.64
P-3	496.00	8.0	130.0	0.00	Open	-18.83	0.01	0.01	0.12
P-4	717.00	8.0	130.0	0.00	Open	21.84	0.02	0.01	0.14
P-5	182.00	8.0	130.0	0.00	Open	-27.64	0.02	0.00	0.18
P-7	333.00	8.0	130.0	0.00	Open	46.89	0.06	0.02	0.30
P-8	134.00	8.0	130.0	0.00	Open	16.25	0.01	0.00	0.10
P-9	612.00	8.0	130.0	0.00	Open	10.25	0.00	0.00	0.07
P-10	485.00	10.0	130.0	0.00	Open	-174.21	0.24	0.12	0.71
P-11	257.00	8.0	130.0	0.00	Open	4.40	0.00	0.00	0.03
P-12	271.00	6.0	130.0	0.20	Open	-0.15	0.00	0.00	0.00
P-13	280.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-14	381.00	8.0	130.0	0.00	Open	0.15	0.00	0.00	0.00
P-15	468.00	10.0	130.0	0.00	Open	52.65	0.03	0.01	0.22
P-16	278.00	8.0	130.0	0.00	Open	5.35	0.00	0.00	0.03
P-17	325.00	8.0	130.0	0.00	Open	10.55	0.00	0.00	0.07
P-18	239.00	8.0	130.0	0.00	Open	1.41	0.00	0.00	0.01
P-19	310.00	8.0	130.0	0.00	Open	-4.19	0.00	0.00	0.03
P-20	630.00	12.0	130.0	0.00	Open	-222.31	0.16	0.10	0.63
P-21	368.00	8.0	130.0	0.00	Open	-11.39	0.00	0.00	0.07
P-22	197.00	8.0	130.0	0.00	Open	11.96	0.00	0.00	0.08
P-23	248.00	8.0	130.0	0.00	Open	40.66	0.05	0.01	0.26
P-24	248.00	8.0	130.0	0.00	Open	40.66	0.05	0.01	0.26
P-25	289.00	8.0	130.0	0.00	Open	17.22	0.01	0.00	0.11
P-27	262.00	8.0	130.0	0.00	Open	17.22	0.01	0.00	0.11
P-29	202.00	8.0	130.0	0.00	Open	12.28	0.01	0.00	0.08
P-30	369.00	10.0	130.0	0.40	Open	-122.45	0.13	0.05	0.50
P-30A	217.00	10.0	130.0	0.00	Open	81.47	0.06	0.01	0.33
P-31	140.00	8.0	130.0	0.00	Open	-4.94	0.00	0.00	0.03
P-32	209.00	8.0	130.0	0.00	Open	-7.78	0.00	0.00	0.05
P-33	233.00	8.0	130.0	0.00	Open	6.70	0.00	0.00	0.04
P-34	221.00	8.0	130.0	0.00	Open	6.70	0.00	0.00	0.04
P-35	218.00	8.0	130.0	0.00	Open	-2.36	0.00	0.00	0.02
P-36	131.00	8.0	130.0	0.00	Open	-2.36	0.00	0.00	0.02
P-37	287.00	8.0	130.0	0.00	Open	-16.42	0.01	0.00	0.10
P-38	128.00	8.0	130.0	0.00	Open	-16.42	0.01	0.00	0.10
P-39	190.00	8.0	130.0	0.00	Open	-16.42	0.01	0.00	0.10
P-40	812.00	10.0	130.0	0.20	Open	6.73	0.00	0.00	0.03
P-41	244.00	8.0	130.0	0.00	Open	-35.48	0.04	0.01	0.23
P-42	161.00	8.0	130.0	0.00	Open	-69.33	0.13	0.02	0.44
P-43	353.00	8.0	130.0	0.00	Open	14.47	0.01	0.00	0.09
P-44	161.00	8.0	130.0	0.00	Open	24.78	0.02	0.00	0.16
P-45	141.00	8.0	130.0	0.00	Open	24.78	0.02	0.00	0.16
P-46	162.00	8.0	130.0	0.00	Open	33.84	0.03	0.01	0.22
P-47	189.00	8.0	130.0	0.00	Open	2.59	0.00	0.00	0.02
P-48	187.00	8.0	130.0	0.00	Open	28.15	0.02	0.00	0.18
P-49	175.00	8.0	130.0	0.00	Open	12.52	0.01	0.00	0.08
P-50	1,311.00	12.0	130.0	0.20	Open	87.46	0.03	0.04	0.25
P-51	274.00	8.0	130.0	0.00	Open	30.73	0.03	0.01	0.20
P-52	118.00	8.0	130.0	0.00	Open	80.10	0.17	0.02	0.51
P-53	275.00	10.0	130.0	0.00	Open	40.73	0.02	0.00	0.17

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-54	221.00	8.0	130.0	0.00	Open	30.73	0.03	0.01	0.20
P-55	281.00	8.0	130.0	0.00	Open	34.36	0.04	0.01	0.22
P-56	155.00	8.0	130.0	0.00	Open	34.36	0.04	0.01	0.22
P-57	227.00	8.0	130.0	0.00	Open	23.73	0.02	0.00	0.15
P-58	231.00	8.0	130.0	0.00	Open	23.73	0.02	0.00	0.15
P-59	190.00	8.0	130.0	0.00	Open	9.98	0.00	0.00	0.06
P-60	407.00	8.0	130.0	0.40	Open	-0.51	0.00	0.00	0.00
P-62	184.00	8.0	130.0	0.00	Open	7.52	0.00	0.00	0.05
P-70	394.00	8.0	130.0	0.00	Open	16.52	0.01	0.00	0.11
P-77	439.00	8.0	130.0	0.00	Open	-1.35	0.00	0.00	0.01
P-80	182.00	8.0	130.0	0.00	Open	8.00	0.00	0.00	0.05
P-90	315.00	8.0	130.0	0.00	Open	-0.17	0.00	0.00	0.00
P-100	787.00	8.0	130.0	0.00	Open	17.38	0.01	0.01	0.11
P-110	173.00	8.0	130.0	0.00	Open	-40.97	0.05	0.01	0.26
P-120	438.00	8.0	130.0	0.00	Open	-23.59	0.02	0.01	0.15
P-130	875.00	8.0	130.0	0.00	Open	-1.99	0.00	0.00	0.01
P-139	122.00	10.0	130.0	0.00	Open	-25.33	0.01	0.00	0.10
P-150A	434.00	8.0	130.0	0.00	Open	-2.66	0.00	0.00	0.02
P-150B	464.00	8.0	130.0	0.00	Open	-8.17	0.00	0.00	0.05
P-150C	283.00	8.0	130.0	0.00	Open	5.51	0.00	0.00	0.04
P-160	805.00	8.0	130.0	0.00	Open	-2.66	0.00	0.00	0.02
P-170	81.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-180	331.00	8.0	130.0	0.00	Open	7.43	0.00	0.00	0.05
P-190	171.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-200	282.00	8.0	130.0	0.00	Open	-8.52	0.00	0.00	0.05
P-210	227.00	8.0	130.0	0.00	Open	7.43	0.00	0.00	0.05
P-220	518.00	12.0	130.0	0.00	Open	146.90	0.07	0.04	0.42
P-230	493.00	10.0	130.0	0.00	Open	-32.25	0.01	0.01	0.13
P-240	258.00	10.0	130.0	0.00	Open	-0.01	0.00	0.00	0.00
P-250	392.00	8.0	130.0	0.00	Open	32.24	0.03	0.01	0.21
P-270	152.00	8.0	130.0	0.00	Open	32.24	0.03	0.00	0.21
P-270A	100.00	8.0	130.0	0.00	Open	-88.45	0.20	0.02	0.56
P-280	270.00	8.0	130.0	0.00	Open	0.59	0.00	0.00	0.00
P-290	327.00	8.0	130.0	0.00	Open	41.81	0.05	0.02	0.27
P-300	276.00	6.0	130.0	0.00	Open	-4.22	0.00	0.00	0.05
P-310	264.00	8.0	130.0	0.00	Open	-30.04	0.03	0.01	0.19
P-320	644.00	6.0	130.0	0.00	Open	-4.22	0.00	0.00	0.05
P-329	557.00	8.0	130.0	0.00	Open	24.21	0.02	0.01	0.15
P-330	506.00	6.0	130.0	0.00	Open	11.78	0.02	0.01	0.13
P-340	236.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-350	149.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-360	931.00	8.0	130.0	0.00	Open	-9.01	0.00	0.00	0.06
P-362	861.00	8.0	130.0	0.00	Open	32.60	0.03	0.03	0.21
P-364	575.00	8.0	130.0	0.00	Open	49.47	0.07	0.04	0.32
P-370	141.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-380	558.00	8.0	130.0	0.00	Open	59.83	0.10	0.06	0.38
P-389	165.00	8.0	130.0	0.00	Open	-12.72	0.01	0.00	0.08
P-390	185.00	8.0	130.0	0.00	Open	88.21	0.20	0.04	0.56
P-400	419.00	6.0	130.0	0.00	Open	24.37	0.08	0.03	0.28
P-410	337.00	8.0	130.0	0.00	Open	16.62	0.01	0.00	0.11
P-420	269.00	6.0	130.0	0.00	Open	20.96	0.06	0.02	0.24

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-422	241.00	8.0	130.0	0.00	Open	7.52	0.00	0.00	0.05
P-423	248.00	8.0	130.0	0.00	Open	9.98	0.00	0.00	0.06
P-424	10.00	16.0	130.0	0.00	Open	521.59	0.19	0.00	0.83
P-425	10.00	16.0	130.0	0.00	Open	521.59	0.19	0.00	0.83
P-426	102.00	16.0	130.0	0.00	Open	300.41	0.07	0.01	0.48
P-427	10.00	16.0	130.0	0.00	Open	1,106.78	0.75	0.01	1.77
P-428	10.00	16.0	130.0	0.00	Open	1,106.78	0.75	0.01	1.77
P-429	10.00	16.0	130.0	0.00	Open	1,106.78	0.75	0.01	1.77
P-430	435.00	6.0	130.0	0.00	Open	1.78	0.00	0.00	0.02
P-432	190.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-434	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-435	20.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-436	606.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-437	161.00	8.0	130.0	5.00	Closed	0.00	0.00	0.00	0.00
P-438	399.00	8.0	130.0	0.00	Open	108.44	0.30	0.12	0.69
P-439	514.00	8.0	130.0	0.00	Open	81.04	0.17	0.09	0.52
P-440	131.00	8.0	130.0	0.00	Open	-14.35	0.01	0.00	0.09
P-441	359.00	6.0	130.0	0.00	Open	47.67	0.26	0.09	0.54
P-442	381.00	6.0	130.0	0.00	Open	20.43	0.06	0.02	0.23
P-443	618.00	6.0	130.0	0.00	Open	7.26	0.01	0.01	0.08
P-444	428.00	6.0	130.0	0.00	Open	4.77	0.00	0.00	0.05
P-445	577.00	6.0	130.0	0.00	Open	2.28	0.00	0.00	0.03
P-446	432.00	6.0	130.0	0.00	Open	-10.68	0.02	0.01	0.12
P-447	261.00	6.0	130.0	0.00	Open	10.47	0.02	0.00	0.12
P-448	416.00	6.0	130.0	0.00	Open	2.49	0.00	0.00	0.03
P-449	406.00	6.0	130.0	0.00	Open	5.49	0.00	0.00	0.06
P-450	298.00	8.0	130.0	0.00	Open	40.45	0.05	0.01	0.26
P-451	276.00	6.0	130.0	0.00	Open	3.00	0.00	0.00	0.03
P-452	442.00	6.0	130.0	0.00	Open	-24.75	0.08	0.03	0.28
P-453	249.00	8.0	130.0	0.00	Open	-10.33	0.00	0.00	0.07
P-454	474.00	6.0	130.0	0.00	Open	-12.82	0.02	0.01	0.15
P-455	282.00	6.0	130.0	0.00	Open	2.49	0.00	0.00	0.03
P-456	228.00	6.0	130.0	0.00	Open	25.26	0.08	0.02	0.29
P-457	187.00	6.0	130.0	0.00	Open	20.01	0.05	0.01	0.23
P-458	224.00	6.0	130.0	0.00	Open	2.49	0.00	0.00	0.03
P-459	406.00	6.0	130.0	0.00	Open	2.76	0.00	0.00	0.03
P-460	584.00	8.0	130.0	0.00	Open	-14.12	0.01	0.00	0.09
P-461	154.00	6.0	130.0	0.00	Open	0.27	0.00	0.00	0.00
P-462	374.00	6.0	130.0	0.00	Open	-24.91	0.08	0.03	0.28
P-463	198.00	6.0	130.0	0.00	Open	22.69	0.07	0.01	0.26
P-464	179.00	6.0	130.0	0.00	Open	2.49	0.00	0.00	0.03
P-465	239.00	6.0	130.0	0.00	Open	17.71	0.04	0.01	0.20
P-466	172.00	6.0	130.0	0.00	Open	-2.58	0.00	0.00	0.03
P-467	208.00	6.0	130.0	0.00	Open	-7.56	0.01	0.00	0.09
P-468	384.00	6.0	130.0	0.00	Open	-15.03	0.03	0.01	0.17
P-469	206.00	6.0	130.0	0.00	Open	4.98	0.00	0.00	0.06
P-470	269.00	8.0	130.0	0.00	Open	-0.22	0.00	0.00	0.00
P-471	138.00	6.0	130.0	0.00	Open	2.49	0.00	0.00	0.03
P-472	453.00	6.0	130.0	0.00	Open	2.49	0.00	0.00	0.03
P-473	572.00	6.0	130.0	0.00	Open	-17.80	0.04	0.02	0.20
P-474	1,161.00	12.0	130.0	0.00	Open	24.00	0.00	0.00	0.07

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-475	1,234.00	12.0	130.0	0.00	Open	16.00	0.00	0.00	0.05
P-476	1,214.00	12.0	130.0	0.00	Open	8.00	0.00	0.00	0.02
P-477	230.00	12.0	130.0	0.00	Closed	0.00	0.00	0.00	0.00
P-480	298.00	8.0	130.0	0.00	Open	8.04	0.00	0.00	0.05
P-482	246.00	8.0	130.0	0.00	Open	-29.42	0.03	0.01	0.19
P-484	532.00	8.0	130.0	0.00	Open	-65.05	0.12	0.06	0.42
P-485	189.00	8.0	130.0	0.00	Open	-65.05	0.12	0.02	0.42
P-488	298.00	8.0	130.0	0.00	Open	26.77	0.02	0.01	0.17
P-490	266.00	8.0	130.0	0.00	Open	-0.04	0.00	0.00	0.00
P-491	460.00	12.0	130.0	0.00	Open	42.02	0.01	0.00	0.12
P-492	230.00	12.0	130.0	0.00	Open	35.94	0.01	0.00	0.10
P-493	94.00	8.0	130.0	0.00	Open	110.19	0.31	0.03	0.70
P-494	297.00	8.0	130.0	0.00	Open	55.31	0.09	0.03	0.35
P-495	296.00	8.0	130.0	0.00	Open	14.67	0.01	0.00	0.09
P-496	615.00	8.0	130.0	0.00	Open	12.71	0.01	0.00	0.08
P-498	152.00	8.0	130.0	0.00	Open	-16.04	0.01	0.00	0.10
P-499	132.00	8.0	130.0	0.00	Open	11.87	0.00	0.00	0.08
P-500	445.00	6.0	130.0	0.00	Open	-3.38	0.00	0.00	0.04
P-501	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-502	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-503	300.00	8.0	130.0	25.00	Open	0.00	0.00	0.00	0.00
P-504	99.00	8.0	130.0	0.00	Open	38.77	0.04	0.00	0.25
P-506	238.00	8.0	130.0	0.00	Open	37.17	0.04	0.01	0.24
P-507	652.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-508	317.00	12.0	130.0	0.00	Open	16.61	0.00	0.00	0.05
P-509	343.00	12.0	130.0	0.00	Open	16.61	0.00	0.00	0.05
P-510	348.00	8.0	130.0	0.00	Open	3.26	0.00	0.00	0.02
P-511	71.00	8.0	130.0	0.00	Open	16.61	0.01	0.00	0.11
P-512	119.00	8.0	130.0	0.00	Open	16.61	0.01	0.00	0.11
P-513	139.00	8.0	130.0	0.00	Open	16.61	0.01	0.00	0.11
P-514	201.00	8.0	130.0	0.00	Open	8.75	0.00	0.00	0.06
P-515	285.00	8.0	130.0	0.00	Open	-5.62	0.00	0.00	0.04
P-516	178.00	8.0	130.0	0.00	Open	-9.27	0.00	0.00	0.06
P-517	201.00	8.0	130.0	0.00	Open	5.33	0.00	0.00	0.03
P-518	92.00	8.0	130.0	0.00	Open	2.80	0.00	0.00	0.02
P-519	300.00	8.0	130.0	0.00	Open	-4.02	0.00	0.00	0.03
P-520	558.00	8.0	130.0	0.00	Open	1.18	0.00	0.00	0.01
P-521	359.00	8.0	130.0	0.00	Open	-4.02	0.00	0.00	0.03
P-522	292.00	8.0	130.0	0.00	Open	-3.64	0.00	0.00	0.02
P-523	177.00	8.0	130.0	0.00	Open	-4.03	0.00	0.00	0.03
P-524	193.00	8.0	130.0	0.00	Open	-14.31	0.01	0.00	0.09
P-525	407.00	8.0	130.0	0.00	Open	-17.91	0.01	0.00	0.11
P-526	172.00	8.0	130.0	0.00	Open	-21.91	0.02	0.00	0.14
P-527	188.00	8.0	130.0	0.00	Open	28.98	0.03	0.00	0.18
P-528	203.00	8.0	130.0	0.00	Open	1.60	0.00	0.00	0.01
P-529	295.00	8.0	130.0	0.00	Open	-52.48	0.08	0.02	0.33
P-530	432.00	10.0	130.0	0.00	Open	-99.29	0.09	0.04	0.41
P-531	265.00	8.0	130.0	0.00	Open	9.47	0.00	0.00	0.06
P-532	309.00	8.0	130.0	0.00	Open	-14.56	0.01	0.00	0.09
P-533	397.00	8.0	130.0	0.00	Open	-16.96	0.01	0.00	0.11
P-534	299.00	8.0	130.0	0.00	Open	33.15	0.03	0.01	0.21

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-535	295.00	8.0	130.0	0.00	Open	2.78	0.00	0.00	0.02
P-536	297.00	8.0	130.0	0.00	Open	-0.02	0.00	0.00	0.00
P-537	284.00	8.0	130.0	0.00	Open	-20.82	0.01	0.00	0.13
P-538	475.00	8.0	130.0	0.00	Open	-15.20	0.01	0.00	0.10
P-539	276.00	8.0	130.0	0.00	Open	-17.60	0.01	0.00	0.11
P-540	864.00	8.0	130.0	0.00	Open	26.51	0.02	0.02	0.17
P-541	137.00	8.0	130.0	0.00	Open	-74.89	0.15	0.02	0.48
P-542	249.00	8.0	130.0	0.00	Open	-74.89	0.15	0.04	0.48
P-543	162.00	8.0	130.0	0.00	Open	-45.46	0.06	0.01	0.29
P-544	122.00	12.0	130.0	0.00	Open	81.55	0.02	0.00	0.23
P-545	287.00	12.0	130.0	0.00	Open	-129.41	0.06	0.02	0.37
P-546	400.00	8.0	130.0	0.00	Open	29.23	0.03	0.01	0.19
P-547	293.00	12.0	130.0	0.00	Open	-162.64	0.09	0.03	0.46
P-548	400.00	8.0	130.0	0.00	Open	56.54	0.09	0.04	0.36
P-549	137.00	8.0	130.0	0.00	Open	47.14	0.06	0.01	0.30
P-550	282.00	10.0	130.0	0.00	Open	125.80	0.13	0.04	0.51
P-551	209.00	8.0	130.0	0.00	Open	47.14	0.06	0.01	0.30
P-552	210.00	12.0	130.0	0.00	Open	221.18	0.15	0.03	0.63
P-553	299.00	8.0	130.0	0.00	Open	6.59	0.00	0.00	0.04
P-554	281.00	8.0	130.0	0.00	Open	32.62	0.03	0.01	0.21
P-555	143.00	6.0	130.0	0.00	Open	-22.19	0.06	0.01	0.25
P-556	622.00	6.0	130.0	0.00	Open	13.79	0.03	0.02	0.16
P-557	147.00	8.0	130.0	0.00	Open	35.97	0.04	0.01	0.23
P-558	1,232.00	8.0	130.0	0.00	Open	35.97	0.04	0.05	0.23
P-559	325.00	8.0	130.0	0.00	Open	35.97	0.04	0.01	0.23
P-560	343.00	8.0	130.0	0.00	Open	22.99	0.02	0.01	0.15
P-560A	288.00	8.0	130.0	0.00	Open	15.79	0.01	0.00	0.10
P-570	269.00	10.0	130.0	0.00	Open	70.51	0.05	0.01	0.29
P-580	483.00	12.0	130.0	0.00	Open	-8.22	0.00	0.00	0.02
P-600	376.00	8.0	130.0	0.00	Open	6.84	0.00	0.00	0.04
P-610	265.00	8.0	130.0	0.00	Open	-8.66	0.00	0.00	0.06
P-620	497.00	8.0	130.0	0.00	Open	4.13	0.00	0.00	0.03
P-630	208.00	6.0	130.0	0.00	Open	2.71	0.00	0.00	0.03
P-640	403.00	10.0	130.0	0.00	Open	-93.20	0.08	0.03	0.38
P-650	190.00	8.0	130.0	0.00	Open	6.09	0.00	0.00	0.04
P-660	545.00	8.0	130.0	0.00	Open	3.07	0.00	0.00	0.02
P-670	233.00	8.0	130.0	0.00	Open	-22.70	0.02	0.00	0.14
P-690	289.00	8.0	130.0	0.00	Open	-13.27	0.01	0.00	0.08
P-690A	101.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-700	1,031.00	8.0	130.0	0.00	Open	2.07	0.00	0.00	0.01
P-710	128.00	8.0	130.0	0.00	Open	-3.07	0.00	0.00	0.02
P-710A	105.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-720	393.00	10.0	130.0	0.00	Open	-146.89	0.18	0.07	0.60
P-730	203.00	8.0	130.0	0.00	Open	53.69	0.08	0.02	0.34
P-740	274.00	8.0	130.0	0.00	Open	18.66	0.01	0.00	0.12
P-750	206.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-760	266.00	6.0	130.0	0.00	Open	-6.29	0.01	0.00	0.07
P-770	421.00	8.0	130.0	0.00	Open	24.95	0.02	0.01	0.16
P-780	663.00	6.0	130.0	0.00	Open	10.11	0.01	0.01	0.11
P-790	147.00	6.0	130.0	0.00	Open	8.62	0.01	0.00	0.10
P-800	264.00	6.0	130.0	0.00	Open	18.63	0.05	0.01	0.21

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-810	273.00	8.0	130.0	0.00	Open	15.47	0.01	0.00	0.10
P-820	481.00	6.0	130.0	0.00	Open	-3.19	0.00	0.00	0.04
P-830	553.00	6.0	130.0	0.00	Open	19.17	0.05	0.03	0.22
P-840	244.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-850	776.00	10.0	130.0	0.00	Open	42.01	0.02	0.01	0.17
P-860	192.00	8.0	130.0	0.00	Open	7.31	0.00	0.00	0.05
P-870	156.00	10.0	130.0	0.00	Open	-0.38	0.00	0.00	0.00
P-880	607.00	8.0	130.0	0.00	Open	-9.43	0.00	0.00	0.06
P-880A	268.00	8.0	130.0	0.00	Closed	0.00	0.00	0.00	0.00
P-890	279.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-900	192.00	8.0	130.0	0.00	Open	10.38	0.00	0.00	0.07
P-910	663.00	8.0	130.0	0.00	Open	10.38	0.00	0.00	0.07
P-920	375.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-930	227.00	8.0	130.0	0.00	Open	21.19	0.01	0.00	0.14
P-940	268.00	8.0	130.0	0.00	Open	21.19	0.01	0.00	0.14
P-950	214.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-960A	385.00	8.0	130.0	0.00	Open	1.13	0.00	0.00	0.01
P-960B	484.00	8.0	130.0	0.00	Open	1.13	0.00	0.00	0.01
P-970	515.00	6.0	130.0	0.00	Open	-5.01	0.00	0.00	0.06
P-980	267.00	6.0	130.0	0.00	Open	2.72	0.00	0.00	0.03
P-990	256.00	8.0	130.0	0.00	Open	-3.42	0.00	0.00	0.02
P-1000	468.00	6.0	130.0	0.00	Open	-2.29	0.00	0.00	0.03
P-1000	136.00	6.0	130.0	0.00	Open	1.13	0.00	0.00	0.01
P-1010	230.00	8.0	130.0	0.00	Open	18.77	0.01	0.00	0.12
P-1030	261.00	8.0	130.0	0.00	Open	23.78	0.02	0.00	0.15
P-1040	332.00	8.0	130.0	0.00	Open	18.36	0.01	0.00	0.12
P-1050	315.00	8.0	130.0	0.00	Open	10.38	0.00	0.00	0.07
P-1060	499.00	8.0	130.0	0.00	Open	11.95	0.01	0.00	0.08
P-1070	590.00	10.0	130.0	0.00	Open	31.63	0.01	0.01	0.13
P-1080	509.00	6.0	130.0	0.00	Open	-6.30	0.01	0.00	0.07
P-1090	188.00	8.0	130.0	0.00	Open	-6.15	0.00	0.00	0.04
P-1100	533.00	8.0	130.0	0.00	Open	6.25	0.00	0.00	0.04
P-1110	211.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1120	456.00	8.0	130.0	0.00	Open	-6.15	0.00	0.00	0.04
P-1130	295.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1140	211.00	10.0	130.0	0.00	Open	52.65	0.03	0.01	0.22
P-1145	509.00	10.0	130.0	0.00	Open	-5.77	0.00	0.00	0.02
P-1150	199.00	8.0	130.0	0.00	Open	-41.46	0.05	0.01	0.26
P-1160	820.00	8.0	130.0	0.00	Open	-26.60	0.02	0.02	0.17
P-1170	286.00	8.0	130.0	0.00	Open	-11.27	0.00	0.00	0.07
P-1180	132.00	8.0	130.0	0.00	Open	22.54	0.02	0.00	0.14
P-1200	174.00	8.0	130.0	0.00	Open	24.94	0.02	0.00	0.16
P-1210	163.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1220	306.00	8.0	130.0	0.00	Open	-17.74	0.01	0.00	0.11
P-1230	249.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1240	777.00	8.0	130.0	0.00	Open	-3.86	0.00	0.00	0.02
P-1250	505.00	6.0	130.0	0.00	Open	-2.73	0.00	0.00	0.03
P-1260	263.00	6.0	130.0	0.00	Open	1.94	0.00	0.00	0.02
P-1270	189.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1280	818.00	6.0	130.0	0.00	Open	9.26	0.01	0.01	0.11
P-1290	259.00	6.0	130.0	0.00	Open	14.86	0.03	0.01	0.17

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-1300	188.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1320	294.00	16.0	130.0	0.00	Open	-235.36	0.04	0.01	0.38
P-1330	781.00	12.0	130.0	0.00	Open	-276.87	0.23	0.18	0.79
P-1340	1,202.00	8.0	130.0	40.00	Open	54.56	0.15	0.18	0.35
P-1350	838.00	8.0	130.0	40.00	Open	39.44	0.09	0.08	0.25
P-1360	717.00	10.0	130.0	0.00	Open	-7.31	0.00	0.00	0.03
P-1370	301.00	12.0	130.0	0.00	Open	107.17	0.04	0.01	0.30
P-1380	491.00	16.0	130.0	0.00	Open	39.60	0.00	0.00	0.06
P-1440	926.00	12.0	130.0	0.00	Open	67.57	0.02	0.02	0.19
P-1450	819.00	12.0	130.0	0.00	Open	78.77	0.02	0.02	0.22
P-1460	425.00	6.0	130.0	0.00	Open	5.70	0.01	0.00	0.06
P-1470	613.00	6.0	130.0	0.00	Open	4.87	0.00	0.00	0.06
P-1490	513.00	8.0	130.0	0.00	Open	-3.37	0.00	0.00	0.02
P-1500	214.00	6.0	130.0	0.00	Open	-2.09	0.00	0.00	0.02
P-1510	515.00	8.0	130.0	0.00	Open	-15.79	0.01	0.00	0.10
P-1520	412.00	6.0	130.0	0.00	Open	7.38	0.01	0.00	0.08
P-1590	428.00	6.0	130.0	0.00	Open	1.18	0.00	0.00	0.01
P-1605	674.00	12.0	130.0	0.00	Open	-87.97	0.03	0.02	0.25
P-1620	364.00	12.0	130.0	0.00	Open	77.55	0.02	0.01	0.22
P-1640	209.00	8.0	130.0	0.00	Open	-7.27	0.00	0.00	0.05
P-1855	1,339.00	12.0	130.0	0.00	Open	62.53	0.01	0.02	0.18
P-1860	468.00	12.0	130.0	0.00	Open	78.77	0.02	0.01	0.22
P-1875	1,324.00	10.0	130.0	0.00	Open	62.53	0.04	0.05	0.26
P-1915	227.00	8.0	130.0	0.00	Open	-5.75	0.00	0.00	0.04
P-1920	465.00	8.0	130.0	0.00	Open	-19.76	0.01	0.01	0.13
P-1925	137.00	8.0	130.0	0.00	Open	-15.36	0.01	0.00	0.10
P-1930	174.00	8.0	130.0	0.00	Open	21.83	0.02	0.00	0.14
P-1935	238.00	8.0	130.0	0.00	Open	16.23	0.01	0.00	0.10
P-1950	473.00	10.0	130.0	0.00	Open	-55.63	0.03	0.01	0.23
P-1955	350.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1960	325.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1965	460.00	8.0	130.0	0.00	Open	6.48	0.00	0.00	0.04
P-1970	341.00	8.0	130.0	0.00	Open	10.48	0.00	0.00	0.07
P-1975	424.00	8.0	130.0	0.00	Open	14.88	0.01	0.00	0.09
P-1980	255.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1985	258.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1990	258.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1995	287.00	8.0	130.0	0.00	Open	26.45	0.02	0.01	0.17
P-2000	299.00	8.0	130.0	0.00	Open	-79.75	0.17	0.05	0.51
P-2005	306.00	8.0	130.0	0.00	Open	26.45	0.02	0.01	0.17
P-2010	1,308.00	8.0	130.0	0.00	Open	-1.62	0.00	0.00	0.01
P-2015	934.00	8.0	130.0	0.00	Open	-5.17	0.00	0.00	0.03
P-2020	299.00	8.0	130.0	0.00	Open	15.11	0.01	0.00	0.10
P-2025	296.00	8.0	130.0	0.00	Open	-14.00	0.01	0.00	0.09
P-2030	274.00	8.0	130.0	0.00	Open	23.92	0.02	0.00	0.15
P-2035	301.00	8.0	130.0	0.00	Open	5.63	0.00	0.00	0.04
P-2040	334.00	8.0	130.0	0.00	Open	35.98	0.04	0.01	0.23
P-2050	168.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2055	298.00	8.0	130.0	0.00	Open	21.28	0.01	0.00	0.14
P-2060	680.00	8.0	130.0	0.00	Open	40.38	0.05	0.03	0.26
P-2070	684.00	6.0	130.0	0.00	Open	6.86	0.01	0.00	0.08

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-2080	418.00	8.0	130.0	0.00	Open	0.81	0.00	0.00	0.01
P-2085	640.00	8.0	130.0	0.00	Open	-26.03	0.02	0.01	0.17
P-2090	748.00	6.0	130.0	0.00	Open	-2.87	0.00	0.00	0.03
P-2095	259.00	8.0	130.0	0.00	Open	61.28	0.10	0.03	0.39
P-2100	378.00	6.0	130.0	0.00	Open	-2.87	0.00	0.00	0.03
P-2110	349.00	8.0	130.0	0.00	Open	4.80	0.00	0.00	0.03
P-2120	954.00	8.0	130.0	0.00	Open	78.13	0.16	0.16	0.50
P-2130	903.00	6.0	130.0	0.00	Open	35.06	0.15	0.14	0.40
P-2135	554.00	10.0	130.0	0.00	Open	73.61	0.05	0.03	0.30
P-2140	388.00	6.0	130.0	0.00	Open	3.20	0.00	0.00	0.04
P-2145	444.00	6.0	130.0	0.00	Open	73.61	0.59	0.26	0.84
P-2150	302.00	6.0	130.0	0.00	Open	24.66	0.08	0.02	0.28
P-2155	187.00	8.0	130.0	0.00	Open	-80.95	0.17	0.03	0.52
P-2160	306.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2165	374.00	8.0	130.0	0.00	Open	139.10	0.47	0.18	0.89
P-2170	284.00	6.0	130.0	0.00	Open	20.26	0.05	0.02	0.23
P-2175	712.00	10.0	130.0	0.00	Open	118.16	0.12	0.08	0.48
P-2180	309.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2185	445.00	8.0	130.0	0.00	Open	44.55	0.06	0.03	0.28
P-2190	216.00	8.0	130.0	0.00	Open	89.75	0.21	0.05	0.57
P-2195	303.00	6.0	130.0	0.00	Open	-18.74	0.05	0.01	0.21
P-2200	320.00	8.0	130.0	0.00	Open	81.77	0.18	0.06	0.52
P-2205	364.00	6.0	130.0	0.00	Open	-18.74	0.05	0.02	0.21
P-2210	546.00	8.0	130.0	0.00	Open	114.63	0.33	0.18	0.73
P-2215	376.00	8.0	130.0	0.00	Open	66.62	0.12	0.05	0.43
P-2220	212.00	6.0	130.0	0.00	Open	-35.06	0.15	0.03	0.40
P-2225	303.00	6.0	130.0	0.00	Open	-18.74	0.05	0.01	0.21
P-2230	290.00	8.0	130.0	0.00	Open	149.70	0.54	0.16	0.96
P-2235	173.00	8.0	130.0	0.00	Open	143.90	0.50	0.09	0.92
P-2240	616.00	6.0	130.0	0.00	Open	13.06	0.02	0.01	0.15
P-2245	301.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2250	146.00	8.0	130.0	0.00	Open	58.88	0.10	0.01	0.38
P-2260	267.00	8.0	130.0	0.00	Open	-94.45	0.23	0.06	0.60
P-2265	823.00	10.0	130.0	0.00	Open	-75.30	0.05	0.04	0.31
P-2270	266.00	8.0	130.0	0.00	Open	89.40	0.21	0.06	0.57
P-2275	610.00	10.0	130.0	0.00	Open	-46.75	0.02	0.01	0.19
P-2280	318.00	8.0	130.0	0.00	Open	67.61	0.12	0.04	0.43
P-2290	450.00	8.0	130.0	0.00	Open	32.45	0.03	0.01	0.21
P-2300	343.00	8.0	130.0	0.00	Open	20.03	0.01	0.00	0.13
P-2305	281.00	8.0	130.0	0.00	Open	20.03	0.01	0.00	0.13
P-2310	383.00	8.0	130.0	0.00	Open	-57.15	0.09	0.03	0.36
P-2320	210.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2330	270.00	8.0	130.0	0.00	Open	49.95	0.07	0.02	0.32
P-2340	258.00	6.0	130.0	0.00	Open	15.64	0.03	0.01	0.18
P-2350	252.00	6.0	130.0	0.00	Open	-5.05	0.00	0.00	0.06
P-2360	395.00	8.0	130.0	0.00	Open	34.31	0.04	0.01	0.22
P-2370	416.00	8.0	130.0	0.00	Open	34.31	0.04	0.01	0.22
P-2380	141.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2390	273.00	8.0	130.0	0.00	Open	-27.11	0.02	0.01	0.17
P-2400	398.00	6.0	130.0	0.00	Open	-20.69	0.06	0.02	0.23
P-2410	408.00	6.0	130.0	0.00	Open	-7.89	0.01	0.00	0.09

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-2420	583.00	8.0	130.0	0.00	Open	-35.00	0.04	0.02	0.22
P-2430	458.00	8.0	130.0	0.00	Open	-25.80	0.02	0.01	0.16
P-2440	185.00	8.0	130.0	0.00	Open	21.79	0.02	0.00	0.14
P-2450	412.00	8.0	130.0	0.00	Open	-47.59	0.06	0.03	0.30
P-2460	726.00	8.0	130.0	0.00	Open	-32.79	0.03	0.02	0.21
P-2470	702.00	6.0	130.0	0.00	Open	-2.46	0.00	0.00	0.03
P-2490	292.00	8.0	130.0	0.00	Open	-20.32	0.01	0.00	0.13
P-2500	542.00	6.0	130.0	0.00	Open	6.07	0.01	0.00	0.07
P-2510	368.00	6.0	130.0	0.00	Open	11.21	0.02	0.01	0.13
P-2520	209.00	8.0	130.0	0.00	Open	35.17	0.04	0.01	0.22
P-2530	657.00	8.0	130.0	0.00	Open	-23.96	0.02	0.01	0.15
P-2540	104.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2550	481.00	8.0	130.0	0.00	Open	-13.96	0.01	0.00	0.09
P-2560	569.00	8.0	130.0	0.00	Open	-16.79	0.01	0.01	0.11
P-2570	261.00	8.0	130.0	0.00	Open	-20.75	0.01	0.00	0.13
P-2580	875.00	6.0	130.0	0.00	Open	-4.11	0.00	0.00	0.05
P-2590	550.00	8.0	130.0	0.00	Open	5.85	0.00	0.00	0.04
P-2600	480.00	6.0	130.0	0.00	Open	4.69	0.00	0.00	0.05
P-2610	259.00	8.0	130.0	0.00	Open	-1.15	0.00	0.00	0.01
P-2620	526.00	6.0	130.0	0.00	Open	-3.28	0.00	0.00	0.04
P-2630	560.00	6.0	130.0	0.00	Open	6.72	0.01	0.00	0.08
P-2640	500.00	8.0	130.0	0.00	Open	-12.12	0.01	0.00	0.08
P-2650	297.00	8.0	130.0	0.00	Open	5.71	0.00	0.00	0.04
P-2660	340.00	8.0	130.0	0.00	Open	12.43	0.01	0.00	0.08
P-2670	299.00	6.0	130.0	0.00	Open	-6.42	0.01	0.00	0.07
P-2680	386.00	6.0	130.0	0.00	Open	-12.42	0.02	0.01	0.14
P-2690	211.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2700	703.00	8.0	130.0	0.00	Open	43.98	0.06	0.04	0.28
P-2730	303.00	8.0	130.0	0.00	Open	7.67	0.00	0.00	0.05
P-3000	1,498.00	12.0	130.0	0.00	Open	-459.36	0.60	0.90	1.30
P-3010	1,472.00	12.0	130.0	0.00	Open	-315.52	0.30	0.44	0.90
P-3020	373.00	12.0	130.0	0.00	Open	802.84	1.69	0.63	2.28
P-3025	126.00	12.0	130.0	0.00	Open	802.84	1.69	0.21	2.28
P-3030	248.00	8.0	130.0	0.00	Open	343.47	2.52	0.63	2.19
P-3040	292.00	8.0	130.0	0.00	Open	219.91	1.11	0.32	1.40
P-3050	303.00	8.0	130.0	0.00	Open	-106.36	0.29	0.09	0.68
P-3060	368.00	8.0	130.0	0.00	Open	-45.52	0.06	0.02	0.29
P-3070	271.00	8.0	130.0	0.00	Open	-106.36	0.29	0.08	0.68
P-3080	257.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3090	192.00	8.0	130.0	0.00	Open	-74.36	0.15	0.03	0.47
P-3095	467.00	8.0	130.0	0.00	Open	-45.52	0.06	0.03	0.29
P-3100	286.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3110	207.00	8.0	130.0	0.00	Open	-74.36	0.15	0.03	0.47
P-3120	536.00	12.0	130.0	0.00	Open	-276.87	0.23	0.13	0.79
P-3130	645.00	12.0	130.0	0.00	Open	202.51	0.13	0.08	0.57
P-3140	305.00	8.0	130.0	0.00	Open	104.05	0.28	0.08	0.66
P-3150	158.00	8.0	130.0	0.00	Open	44.17	0.06	0.01	0.28
P-3160	673.00	8.0	130.0	0.00	Open	303.95	2.01	1.35	1.94
P-3170	234.00	8.0	130.0	0.00	Open	40.21	0.05	0.01	0.26
P-3180	685.00	8.0	130.0	0.00	Open	16.00	0.01	0.01	0.10
P-3190	812.00	8.0	130.0	0.00	Open	-4.36	0.00	0.00	0.03

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-3200	249.00	8.0	130.0	0.00	Open	11.64	0.00	0.00	0.07
P-3210	188.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3220	747.00	8.0	130.0	0.00	Open	-4.36	0.00	0.00	0.03
P-3240	141.00	8.0	130.0	0.00	Open	-79.84	0.17	0.02	0.51
P-3250	161.00	8.0	130.0	0.00	Open	-47.23	0.06	0.01	0.30
P-3260	440.00	8.0	130.0	0.00	Open	-49.82	0.07	0.03	0.32
P-3270	290.00	8.0	130.0	0.00	Open	51.40	0.07	0.02	0.33
P-3290	293.00	8.0	130.0	0.00	Open	-33.82	0.03	0.01	0.22
P-3300	175.00	8.0	130.0	0.00	Open	82.42	0.18	0.03	0.53
P-3310	649.00	6.0	130.0	0.00	Open	31.01	0.12	0.08	0.35
P-3325	144.00	8.0	130.0	0.00	Open	91.37	0.22	0.03	0.58
P-3330	273.00	8.0	130.0	0.00	Open	147.84	0.53	0.14	0.94
P-3340	328.00	8.0	130.0	0.00	Open	22.94	0.02	0.01	0.15
P-3350	170.00	8.0	130.0	0.00	Open	47.20	0.06	0.01	0.30
P-3360	291.00	8.0	130.0	0.00	Open	16.49	0.01	0.00	0.11
P-3370	752.00	8.0	130.0	0.00	Open	26.49	0.02	0.02	0.17
P-3380	327.00	6.0	130.0	0.00	Open	-17.69	0.04	0.01	0.20
P-3390	305.00	8.0	130.0	0.00	Open	27.77	0.02	0.01	0.18
P-3400	412.00	8.0	130.0	0.00	Open	-17.27	0.01	0.00	0.11
P-3410	369.00	6.0	130.0	0.00	Open	8.73	0.01	0.00	0.10
P-3420	290.00	8.0	130.0	0.00	Open	-106.36	0.29	0.08	0.68
P-3430	175.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3440	288.00	8.0	130.0	0.00	Open	-28.84	0.03	0.01	0.18
P-3450	279.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3460	634.00	8.0	130.0	0.00	Open	-48.44	0.07	0.04	0.31
P-3470	466.00	12.0	130.0	0.00	Open	-360.90	0.38	0.18	1.02
P-3480	211.00	8.0	130.0	0.00	Open	13.50	0.01	0.00	0.09
P-3490	283.00	8.0	130.0	0.00	Open	9.00	0.00	0.00	0.06
P-3500	292.00	6.0	130.0	0.00	Open	-11.29	0.02	0.01	0.13
P-3510	490.00	6.0	130.0	0.00	Open	17.53	0.04	0.02	0.20
P-3530	702.00	8.0	130.0	0.00	Open	65.42	0.12	0.08	0.42
P-3540	576.00	6.0	130.0	0.00	Open	13.41	0.03	0.01	0.15
P-3550	705.00	8.0	130.0	0.00	Open	51.40	0.07	0.05	0.33
P-3620	958.00	8.0	130.0	0.00	Open	-29.67	0.03	0.03	0.19
P-5000	182.00	8.0	130.0	0.00	Open	19.33	0.01	0.00	0.12

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Reservoir Report

Label	Elevation (ft)	Inflow (gpm)	Calculated Hydraulic Grade (ft)	Outflow (gpm)
R-1	275.00	-521.59	275.00	521.59
R-2	275.00	-1,106.78	275.00	1,106.78
R-3	275.00	0.00	275.00	0.00
R-4	275.00	0.00	275.00	0.00

Scenario: Average Day, 70 psig at Hydro Tank
Steady State Analysis
Valve Report

Label	Elevation (ft)	Diameter (in)	Control Status	Discharge (gpm)	Calculated Pressure Setting (psi)
PRV-1	65.00	16.0	Throttling	521.59	66.00
PRV-2	58.00	16.0	Throttling	1,106.78	70.00
PRV-3	81.00	12.0	Inactive	0.00	60.16
PRV-4	41.70	12.0	Inactive	0.00	59.86

MAXIMUM DAY DEMAND

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1	45.00	Demand	0.00	Fixed	0.00	196.61	65.59
J-2	38.00	Demand	0.00	Fixed	0.00	196.28	68.48
J-3	37.00	Demand	0.00	Fixed	0.00	196.27	68.91
J-5	43.00	Demand	0.00	Fixed	0.00	196.30	66.33
J-6	43.00	Demand	0.00	Fixed	0.00	196.55	66.43
J-7	43.00	Demand	6.00	Fixed	12.00	196.29	66.32
J-8	47.00	Demand	6.00	Fixed	12.00	196.28	64.59
J-9	47.00	Demand	4.40	Fixed	8.80	196.28	64.59
J-10	63.34	Demand	0.00	Fixed	0.00	198.09	58.30
J-11	45.20	Demand	0.00	Fixed	0.00	196.28	65.36
J-12	44.00	Demand	0.00	Fixed	0.00	196.28	65.88
J-13	46.00	Demand	5.20	Fixed	10.40	196.28	65.02
J-14	45.00	Demand	5.20	Fixed	10.40	196.28	65.45
J-15	40.00	Demand	0.00	Fixed	0.00	196.28	67.62
J-16	40.00	Demand	5.60	Fixed	11.20	196.28	67.62
J-17	40.00	Demand	7.20	Fixed	14.40	196.29	67.62
J-18	37.00	Demand	0.00	Fixed	0.00	196.22	68.89
J-19	38.00	Demand	23.44	Fixed	46.88	196.18	68.44
J-20	50.91	Demand	17.19	Fixed	34.38	196.85	63.14
J-21	37.00	Demand	0.00	Fixed	0.00	196.17	68.86
J-22	37.00	Demand	0.00	Fixed	0.00	196.16	68.86
J-23	40.00	Demand	25.00	Fixed	50.00	196.15	67.56
J-24	37.00	Demand	0.00	Fixed	0.00	196.16	68.86
J-25	37.00	Demand	0.00	Fixed	0.00	196.16	68.86
J-26	37.00	Demand	0.00	Fixed	0.00	196.16	68.86
J-27	39.00	Demand	9.06	Fixed	18.12	196.15	67.99
J-28	39.00	Demand	0.00	Fixed	0.00	196.15	67.99
J-29	39.00	Demand	14.06	Fixed	28.12	196.15	67.99
J-30	66.90	Demand	0.00	Fixed	0.00	197.97	56.71
J-31	40.00	Demand	0.00	Fixed	0.00	196.16	67.56
J-32	40.00	Demand	0.00	Fixed	0.00	196.17	67.57
J-33	45.00	Demand	19.06	Fixed	38.12	196.17	65.41
J-34	40.00	Demand	0.00	Fixed	0.00	196.21	67.58
J-35	40.00	Demand	10.31	Fixed	20.62	196.17	67.57
J-36	40.00	Demand	0.00	Fixed	0.00	196.18	67.57
J-37	38.00	Demand	9.06	Fixed	18.12	196.19	68.44
J-39	43.00	Demand	15.63	Fixed	31.26	196.53	66.43
J-40	70.52	Demand	0.00	Fixed	0.00	197.97	55.14
J-40A	70.00	Demand	0.00	Fixed	0.00	197.97	55.36
J-41	47.00	Demand	5.00	Fixed	10.00	196.53	64.69
J-42	43.00	Demand	0.00	Fixed	0.00	196.57	66.44
J-43	50.00	Demand	5.00	Fixed	10.00	196.61	63.43
J-44	47.00	Demand	10.00	Fixed	20.00	196.60	64.72
J-45	50.00	Demand	0.00	Fixed	0.00	196.58	63.42
J-46	50.00	Demand	10.63	Fixed	21.26	196.56	63.41
J-47	49.00	Demand	0.00	Fixed	0.00	196.54	63.83
J-48	49.00	Demand	13.75	Fixed	27.50	196.53	63.83
J-50	70.72	Demand	9.00	Fixed	18.00	198.13	55.13
J-52	47.00	Demand	17.50	Fixed	35.00	196.52	64.69
J-55	56.31	Demand	0.00	Fixed	0.00	198.05	61.32
J-60	78.00	Demand	0.00	Fixed	0.00	198.04	51.93
J-65	79.06	Demand	4.00	Fixed	8.00	198.14	51.52

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-70	72.52	Demand	0.00	Fixed	0.00	198.06	54.32
J-75	74.14	Demand	4.00	Fixed	8.00	198.29	53.71
J-80	74.00	Demand	0.00	Fixed	0.00	198.03	53.66
J-90	72.14	Demand	19.20	Fixed	38.40	197.98	54.44
J-100	71.87	Demand	0.00	Fixed	0.00	197.97	54.56
J-110	72.60	Demand	21.60	Fixed	43.20	197.96	54.24
J-120	74.07	Demand	0.00	Fixed	0.00	198.03	53.63
J-130	75.25	Demand	15.60	Fixed	31.20	198.03	53.12
J-130A	74.00	Demand	0.00	Fixed	0.00	198.03	53.66
J-140	75.56	Demand	0.00	Fixed	0.00	198.03	52.99
J-150	75.14	Demand	0.00	Fixed	0.00	198.05	53.18
J-160	76.01	Demand	0.00	Fixed	0.00	198.05	52.80
J-170	74.37	Demand	0.00	Fixed	0.00	198.06	53.51
J-180	68.38	Demand	0.00	Fixed	0.00	198.43	56.26
J-190	69.42	Demand	0.00	Fixed	0.00	198.39	55.80
J-200	70.84	Demand	14.40	Fixed	28.80	198.61	55.28
J-210	70.31	Demand	0.00	Fixed	0.00	198.55	55.48
J-220	72.57	Demand	0.00	Fixed	0.00	198.41	54.45
J-230	72.90	Demand	0.00	Fixed	0.00	198.32	54.26
J-240	74.23	Demand	16.80	Fixed	33.60	198.32	53.69
J-250	71.50	Demand	16.00	Fixed	32.00	198.32	54.87
J-260	70.38	Demand	0.00	Fixed	0.00	198.32	55.35
J-270	72.61	Demand	0.00	Fixed	0.00	198.32	54.39
J-280	74.73	Demand	9.60	Fixed	19.20	198.10	53.38
J-290	75.43	Demand	0.00	Fixed	0.00	198.10	53.07
J-296	49.00	Demand	0.00	Fixed	0.00	196.53	63.83
J-298	49.00	Demand	0.00	Fixed	0.00	196.53	63.83
J-300	64.72	Demand	0.00	Fixed	0.00	197.55	57.47
J-302	43.00	Demand	0.00	Fixed	0.00	196.55	66.43
J-306	43.00	Demand	0.00	Fixed	0.00	196.32	66.34
J-310	64.12	Demand	8.80	Fixed	17.60	197.55	57.73
J-320	68.92	Demand	4.00	Fixed	8.00	197.83	55.77
J-330	67.86	Demand	12.00	Fixed	24.00	197.62	56.14
J-335	66.84	Demand	5.60	Fixed	11.20	197.61	56.58
J-340	65.40	Demand	0.00	Fixed	0.00	197.61	57.20
J-344	65.00	Demand	0.00	Fixed	0.00	199.04	57.99
J-345	58.00	Demand	0.00	Fixed	0.00	201.29	61.99
J-346	81.00	Demand	0.00	Fixed	0.00	275.00	83.93
J-347	80.00	Demand	0.00	Fixed	0.00	198.01	51.06
J-348	80.00	Demand	0.00	Fixed	0.00	198.01	51.06
J-349	48.00	Demand	2.49	Fixed	4.98	198.27	65.01
J-350	63.00	Demand	3.60	Fixed	7.20	197.56	58.22
J-351	49.00	Demand	2.49	Fixed	4.98	198.27	64.58
J-352	52.00	Demand	2.49	Fixed	4.98	198.42	63.35
J-353	53.20	Demand	2.49	Fixed	4.98	198.33	62.79
J-354	49.75	Demand	2.49	Fixed	4.98	198.30	64.27
J-355	61.46	Demand	0.00	Fixed	0.00	197.55	58.88
J-356	49.50	Demand	2.49	Fixed	4.98	198.30	64.38
J-357	48.50	Demand	2.49	Fixed	4.98	198.28	64.80
J-358	53.50	Demand	2.49	Fixed	4.98	198.43	62.70
J-359	52.00	Demand	2.49	Fixed	4.98	198.35	63.32
J-360	61.63	Demand	11.20	Fixed	22.40	197.20	58.65

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-360A	61.00	Demand	0.00	Fixed	0.00	197.20	58.93
J-361	55.00	Demand	2.49	Fixed	4.98	198.35	62.02
J-362	54.00	Demand	2.49	Fixed	4.98	198.36	62.46
J-363	54.50	Demand	2.49	Fixed	4.98	198.36	62.24
J-364	56.00	Demand	2.49	Fixed	4.98	198.36	61.59
J-365	58.65	Demand	11.50	Fixed	23.00	197.19	59.94
J-365A	58.00	Demand	0.00	Fixed	0.00	197.07	60.17
J-366	56.00	Demand	2.49	Fixed	4.98	198.38	61.60
J-367	57.00	Demand	2.49	Fixed	4.98	198.37	61.16
J-368	53.00	Demand	2.49	Fixed	4.98	198.35	62.89
J-369	52.50	Demand	2.49	Fixed	4.98	198.33	63.09
J-370	66.22	Demand	9.70	Fixed	19.40	197.57	56.83
J-371	50.00	Demand	2.49	Fixed	4.98	198.30	64.16
J-372	48.50	Demand	2.49	Fixed	4.98	198.27	64.80
J-373	51.50	Demand	2.49	Fixed	4.98	198.33	63.53
J-374	50.50	Demand	2.49	Fixed	4.98	198.30	63.95
J-375	50.00	Demand	2.49	Fixed	4.98	198.28	64.16
J-376	49.50	Demand	2.49	Fixed	4.98	198.28	64.37
J-377	48.70	Demand	2.49	Fixed	4.98	198.28	64.72
J-378	49.00	Demand	2.49	Fixed	4.98	198.28	64.59
J-379	48.70	Demand	2.49	Fixed	4.98	198.28	64.72
J-380	66.43	Demand	0.00	Fixed	0.00	197.98	56.92
J-381	41.70	Demand	8.00	Fixed	16.00	196.60	67.02
J-382	38.30	Demand	8.00	Fixed	16.00	196.59	68.49
J-383	33.00	Demand	8.00	Fixed	16.00	196.59	70.78
J-384	41.70	Demand	0.00	Fixed	0.00	275.00	100.94
J-385	65.00	Demand	3.20	Fixed	6.40	197.92	57.51
J-386	66.00	Demand	3.60	Fixed	7.20	197.97	57.10
J-387	66.00	Demand	5.20	Fixed	10.40	198.04	57.13
J-388	74.10	Demand	0.00	Fixed	0.00	198.82	53.96
J-389	74.20	Demand	2.00	Fixed	4.00	198.38	53.73
J-390	64.79	Demand	5.20	Fixed	10.40	197.56	57.44
J-392	64.00	Demand	1.20	Fixed	2.40	197.79	57.88
J-394	66.00	Demand	2.40	Fixed	4.80	198.01	57.12
J-395	67.20	Demand	1.20	Fixed	2.40	198.02	56.60
J-396	73.00	Demand	22.99	Fixed	45.98	198.01	54.09
J-397	75.70	Demand	3.20	Fixed	6.40	198.38	53.08
J-398	77.00	Demand	0.00	Fixed	0.00	198.32	52.49
J-399	77.00	Demand	0.00	Fixed	0.00	198.12	52.40
J-400	63.46	Demand	3.20	Fixed	6.40	197.55	58.02
J-401	77.00	Demand	2.40	Fixed	4.80	198.34	52.50
J-402	75.00	Demand	4.00	Fixed	8.00	198.52	53.44
J-403	67.00	Demand	1.60	Fixed	3.20	198.03	56.69
J-404	74.60	Demand	3.13	Fixed	6.26	198.00	53.39
J-405	76.20	Demand	3.29	Fixed	6.58	198.01	52.70
J-406	41.70	Demand	0.00	Fixed	0.00	275.00	100.94
J-407	81.00	Demand	0.00	Fixed	0.00	198.01	50.62
J-408	73.00	Demand	3.20	Fixed	6.40	198.47	54.28
J-409	73.00	Demand	2.00	Fixed	4.00	198.76	54.41
J-410	63.00	Demand	4.40	Fixed	8.80	197.55	58.22
J-411	73.00	Demand	2.80	Fixed	5.60	198.49	54.29
J-412	71.00	Demand	0.00	Fixed	0.00	198.45	55.14

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Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-413	76.00	Demand	6.08	Fixed	12.16	198.01	52.79
J-414	67.00	Demand	2.40	Fixed	4.80	198.20	56.77
J-415	73.00	Demand	3.60	Fixed	7.20	198.02	54.09
J-416	68.00	Demand	4.00	Fixed	8.00	198.05	56.27
J-417	67.00	Demand	1.60	Fixed	3.20	198.06	56.71
J-418	67.00	Demand	1.60	Fixed	3.20	198.02	56.69
J-419	67.00	Demand	3.20	Fixed	6.40	198.01	56.68
J-420	63.00	Demand	0.00	Fixed	0.00	197.48	58.18
J-421	66.00	Demand	2.40	Fixed	4.80	198.02	57.12
J-422	64.00	Demand	3.20	Fixed	6.40	197.97	57.96
J-423	65.00	Demand	2.80	Fixed	5.60	197.97	57.53
J-424	64.00	Demand	1.60	Fixed	3.20	197.88	57.92
J-425	73.00	Demand	3.65	Fixed	7.30	198.00	54.08
J-426	72.00	Demand	0.00	Fixed	0.00	198.00	54.52
J-427	72.00	Demand	6.82	Fixed	13.64	198.00	54.51
J-428	72.00	Demand	2.53	Fixed	5.06	198.00	54.51
J-429	74.00	Demand	2.53	Fixed	5.06	198.00	53.65
J-430	60.90	Demand	7.60	Fixed	15.20	197.11	58.93
J-431	75.00	Demand	0.00	Fixed	0.00	198.00	53.22
J-433	76.00	Demand	0.00	Fixed	0.00	198.01	52.79
J-434	76.00	Demand	0.00	Fixed	0.00	198.01	52.79
J-435	61.60	Demand	7.20	Fixed	14.40	197.17	58.66
J-435A	61.00	Demand	0.00	Fixed	0.00	197.15	58.91
J-436	74.00	Demand	14.37	Fixed	28.74	198.00	53.65
J-437	74.00	Demand	3.65	Fixed	7.30	198.00	53.65
J-438	76.00	Demand	0.00	Fixed	0.00	198.01	52.79
J-439	64.00	Demand	0.00	Fixed	0.00	197.73	57.86
J-440	60.59	Demand	9.60	Fixed	19.20	197.22	59.11
J-441	56.00	Demand	0.00	Fixed	0.00	197.27	61.12
J-442	54.00	Demand	0.00	Fixed	0.00	197.15	61.93
J-450	59.29	Demand	0.00	Fixed	0.00	197.11	59.63
J-450A	59.00	Demand	0.00	Fixed	0.00	197.11	59.75
J-470	58.00	Demand	3.20	Fixed	6.40	197.11	60.18
J-475	57.16	Demand	7.50	Fixed	15.00	197.11	60.55
J-480	59.15	Demand	0.00	Fixed	0.00	197.11	59.69
J-485	58.66	Demand	4.80	Fixed	9.60	197.11	59.90
J-490	59.97	Demand	0.00	Fixed	0.00	197.20	59.37
J-500	63.34	Demand	5.60	Fixed	11.20	197.78	58.17
J-510	64.22	Demand	0.00	Fixed	0.00	197.77	57.78
J-520	63.00	Demand	0.00	Fixed	0.00	197.79	58.32
J-520A	63.00	Demand	0.00	Fixed	0.00	197.79	58.32
J-530	61.57	Demand	12.40	Fixed	24.80	197.80	58.94
J-540	64.71	Demand	0.00	Fixed	0.00	197.84	57.60
J-550	67.29	Demand	0.00	Fixed	0.00	197.83	56.48
J-560	66.05	Demand	16.40	Fixed	32.80	197.83	57.02
J-570	66.00	Demand	0.00	Fixed	0.00	197.88	57.06
J-580	64.21	Demand	13.20	Fixed	26.40	197.81	57.80
J-590	63.12	Demand	0.00	Fixed	0.00	197.81	58.27
J-600	69.08	Demand	0.00	Fixed	0.00	197.71	55.65
J-610	67.88	Demand	5.20	Fixed	10.40	197.71	56.17
J-620	55.00	Demand	0.00	Fixed	0.00	196.91	61.40
J-630	49.99	Demand	0.00	Fixed	0.00	196.74	63.49

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Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-635	48.00	Demand	0.00	Fixed	0.00	196.68	64.33
J-640	55.00	Demand	0.00	Fixed	0.00	196.90	61.40
J-650	56.23	Demand	0.00	Fixed	0.00	196.90	60.86
J-660	52.32	Demand	0.00	Fixed	0.00	196.90	62.55
J-670	53.48	Demand	0.00	Fixed	0.00	196.90	62.05
J-680	58.46	Demand	19.60	Fixed	39.20	197.07	59.97
J-700	58.75	Demand	0.00	Fixed	0.00	197.09	59.85
J-710	57.28	Demand	0.00	Fixed	0.00	197.09	60.49
J-720	54.01	Demand	0.00	Fixed	0.00	197.07	61.89
J-730	55.06	Demand	0.00	Fixed	0.00	197.04	61.43
J-740	57.00	Demand	0.00	Fixed	0.00	197.06	60.60
J-750	55.01	Demand	0.00	Fixed	0.00	197.07	61.46
J-750A	55.00	Demand	0.00	Fixed	0.00	197.07	61.47
J-760	51.15	Demand	19.20	Fixed	38.40	196.98	63.09
J-770	51.19	Demand	16.80	Fixed	33.60	196.90	63.04
J-780	47.22	Demand	0.00	Fixed	0.00	196.81	64.72
J-785	50.53	Demand	12.00	Fixed	24.00	196.78	63.27
J-790	49.86	Demand	0.00	Fixed	0.00	196.78	63.56
J-800	48.00	Demand	0.00	Fixed	0.00	196.76	64.36
J-810	48.24	Demand	12.40	Fixed	24.80	196.76	64.26
J-820	48.27	Demand	0.00	Fixed	0.00	196.75	64.24
J-830	49.28	Demand	0.00	Fixed	0.00	196.75	63.80
J-840	50.00	Demand	0.00	Fixed	0.00	196.68	63.46
J-845	48.00	Demand	0.00	Fixed	0.00	196.68	64.33
J-850	58.38	Demand	0.00	Fixed	0.00	196.66	59.83
J-860	53.78	Demand	20.80	Fixed	41.60	196.64	61.81
J-870	53.89	Demand	1.60	Fixed	3.20	196.67	61.77
J-880	51.19	Demand	2.40	Fixed	4.80	196.72	62.97
J-890	51.00	Demand	0.00	Fixed	0.00	196.75	63.06
J-900	49.92	Demand	0.00	Fixed	0.00	196.72	63.51
J-910	51.66	Demand	4.80	Fixed	9.60	196.70	62.75
J-920	52.29	Demand	0.00	Fixed	0.00	196.70	62.48
J-930	55.00	Demand	8.40	Fixed	16.80	196.65	61.28
J-935	55.00	Demand	4.00	Fixed	8.00	196.65	61.29
J-940	51.83	Demand	0.00	Fixed	0.00	196.63	62.65
J-945	55.86	Demand	7.60	Fixed	15.20	196.65	60.91
J-950	48.48	Demand	5.60	Fixed	11.20	196.65	64.10
J-960	53.74	Demand	11.20	Fixed	22.40	196.63	61.82
J-970	48.18	Demand	0.00	Fixed	0.00	196.65	64.23
J-980	70.85	Demand	0.00	Fixed	0.00	198.83	55.37
J-990	64.17	Demand	0.00	Fixed	0.00	197.99	57.90
J-1000	66.35	Demand	94.00	Fixed	188.00	197.51	56.75
J-1010	94.62	Demand	0.00	Fixed	0.00	197.95	44.70
J-1020	70.20	Demand	0.00	Fixed	0.00	197.97	55.28
J-1030	70.00	Demand	39.60	Fixed	79.20	197.96	55.36
J-1070	70.00	Demand	0.00	Fixed	0.00	197.97	55.37
J-1080	72.75	Demand	0.00	Fixed	0.00	197.97	54.18
J-1120	65.00	Demand	0.00	Fixed	0.00	198.97	57.96
J-1330	65.10	Demand	0.00	Fixed	0.00	197.99	57.50
J-1335	68.70	Demand	0.00	Fixed	0.00	197.97	55.93
J-1345	61.40	Demand	0.00	Fixed	0.00	198.03	59.11
J-1370	72.70	Demand	22.80	Fixed	45.60	197.96	54.19

Scenario: Maximum Day, 60 psig at Hydro Tank
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Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1380	72.80	Demand	0.00	Fixed	0.00	197.96	54.15
J-1385	73.00	Demand	4.40	Fixed	8.80	197.96	54.06
J-1390	74.00	Demand	0.00	Fixed	0.00	197.96	53.63
J-1395	74.50	Demand	5.60	Fixed	11.20	197.96	53.42
J-1405	72.60	Demand	0.00	Fixed	0.00	198.01	54.26
J-1410	75.40	Demand	0.00	Fixed	0.00	197.96	53.03
J-1415	73.90	Demand	0.00	Fixed	0.00	197.96	53.67
J-1420	72.70	Demand	4.00	Fixed	8.00	197.96	54.19
J-1425	72.10	Demand	4.40	Fixed	8.80	197.96	54.45
J-1430	72.00	Demand	6.40	Fixed	12.80	197.96	54.50
J-1435	72.20	Demand	0.00	Fixed	0.00	197.96	54.41
J-1440	72.20	Demand	0.00	Fixed	0.00	197.96	54.41
J-1445	72.20	Demand	0.00	Fixed	0.00	197.96	54.41
J-1450	72.80	Demand	0.00	Fixed	0.00	197.97	54.15
J-1455	72.90	Demand	0.00	Fixed	0.00	197.96	54.11
J-1460	72.80	Demand	10.80	Fixed	21.60	197.96	54.15
J-1465	71.20	Demand	6.40	Fixed	12.80	197.96	54.84
J-1475	70.40	Demand	8.80	Fixed	17.60	197.97	55.19
J-1490	57.90	Demand	0.00	Fixed	0.00	198.15	60.68
J-1495	63.30	Demand	2.40	Fixed	4.80	198.46	58.48
J-1500	65.80	Demand	4.80	Fixed	9.60	198.14	57.26
J-1505	59.40	Demand	0.00	Fixed	0.00	198.12	60.02
J-1510	67.20	Demand	4.40	Fixed	8.80	198.09	56.63
J-1515	67.20	Demand	0.00	Fixed	0.00	198.07	56.62
J-1520	67.30	Demand	0.00	Fixed	0.00	198.05	56.57
J-1525	68.70	Demand	4.40	Fixed	8.80	198.04	55.96
J-1530	64.40	Demand	4.80	Fixed	9.60	198.35	57.95
J-1535	64.20	Demand	0.00	Fixed	0.00	198.35	58.04
J-2000	79.46	Demand	0.00	Fixed	0.00	197.83	51.22
J-2005	72.85	Demand	14.90	Fixed	29.80	197.94	54.12
J-2010	80.79	Demand	19.60	Fixed	39.20	197.80	50.62
J-2020	82.53	Demand	8.00	Fixed	16.00	197.80	49.87
J-2030	83.82	Demand	5.20	Fixed	10.40	197.80	49.31
J-2040	82.91	Demand	4.40	Fixed	8.80	197.82	49.72
J-2050	82.01	Demand	0.00	Fixed	0.00	197.82	50.11
J-2060	81.43	Demand	3.60	Fixed	7.20	197.87	50.38
J-2070	81.68	Demand	0.00	Fixed	0.00	197.80	50.24
J-2080	82.32	Demand	0.00	Fixed	0.00	197.80	49.96
J-2090	80.95	Demand	0.00	Fixed	0.00	197.80	50.55
J-2100	84.12	Demand	4.80	Fixed	9.60	197.79	49.18
J-2110	79.47	Demand	8.00	Fixed	16.00	197.37	51.01
J-2120	82.68	Demand	7.20	Fixed	14.40	196.90	49.42
J-2130	84.45	Demand	3.20	Fixed	6.40	196.89	48.65
J-2140	82.29	Demand	4.40	Fixed	8.80	196.82	49.55
J-2150	83.99	Demand	0.00	Fixed	0.00	196.82	48.81
J-2160	82.01	Demand	7.20	Fixed	14.40	196.76	49.65
J-2170	83.80	Demand	0.00	Fixed	0.00	196.76	48.87
J-2180	72.01	Demand	11.16	Fixed	22.32	196.72	53.95
J-2190	77.29	Demand	0.00	Fixed	0.00	198.02	52.23
J-2200	78.51	Demand	0.00	Fixed	0.00	197.29	51.39
J-2210	80.07	Demand	0.00	Fixed	0.00	196.49	50.37
J-2220	81.56	Demand	0.00	Fixed	0.00	196.29	49.64

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Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-2230	83.62	Demand	0.00	Fixed	0.00	196.15	48.69
J-2240	87.60	Demand	0.00	Fixed	0.00	196.10	46.94
J-2250	86.42	Demand	7.60	Fixed	15.20	196.07	47.44
J-2260	78.00	Demand	7.20	Fixed	14.40	196.59	51.31
J-2270	77.33	Demand	0.00	Fixed	0.00	196.59	51.60
J-2280	77.87	Demand	0.00	Fixed	0.00	196.52	51.33
J-2290	79.32	Demand	0.00	Fixed	0.00	196.49	50.69
J-2300	78.24	Demand	0.00	Fixed	0.00	196.47	51.15
J-2310	78.74	Demand	7.20	Fixed	14.40	196.42	50.91
J-2320	78.00	Demand	0.00	Fixed	0.00	196.42	51.23
J-2330	80.36	Demand	0.00	Fixed	0.00	196.39	50.20
J-2340	79.84	Demand	12.80	Fixed	25.60	196.41	50.43
J-2350	81.49	Demand	9.20	Fixed	18.40	196.32	49.68
J-2360	81.99	Demand	0.00	Fixed	0.00	196.28	49.45
J-2370	82.95	Demand	14.80	Fixed	29.60	196.19	48.99
J-2380	79.53	Demand	10.00	Fixed	20.00	196.10	50.43
J-2400	86.00	Demand	7.60	Fixed	15.20	196.10	47.63
J-2410	87.00	Demand	9.60	Fixed	19.20	196.09	47.20
J-2420	83.42	Demand	0.00	Fixed	0.00	196.12	48.76
J-2430	86.38	Demand	10.00	Fixed	20.00	196.08	47.46
J-2440	86.80	Demand	0.00	Fixed	0.00	196.08	47.28
J-2450	87.00	Demand	10.00	Fixed	20.00	196.07	47.19
J-2460	89.31	Demand	10.80	Fixed	21.60	196.05	46.18
J-2470	90.96	Demand	8.80	Fixed	17.60	196.04	45.47
J-2480	90.00	Demand	0.00	Fixed	0.00	196.05	45.88
J-2490	90.00	Demand	10.00	Fixed	20.00	196.05	45.88
J-2500	90.45	Demand	10.00	Fixed	20.00	196.05	45.69
J-2510	88.61	Demand	0.00	Fixed	0.00	196.06	46.49
J-2520	88.42	Demand	0.00	Fixed	0.00	196.06	46.57
J-2530	87.41	Demand	6.00	Fixed	12.00	196.07	47.01
J-2540	87.15	Demand	0.00	Fixed	0.00	196.07	47.12
J-2560	83.29	Demand	0.00	Fixed	0.00	196.08	48.80
J-3000	58.00	Demand	0.00	Fixed	0.00	201.28	61.99
J-3010	56.98	Demand	0.00	Fixed	0.00	198.19	61.09
J-3030	58.28	Demand	0.00	Fixed	0.00	199.83	61.24
J-3040	62.88	Demand	0.00	Fixed	0.00	198.21	58.55
J-3050	59.32	Demand	17.20	Fixed	34.40	198.85	60.37
J-3060	61.77	Demand	0.00	Fixed	0.00	198.50	59.16
J-3080	59.48	Demand	0.00	Fixed	0.00	198.50	60.15
J-3090	59.34	Demand	12.40	Fixed	24.80	198.34	60.14
J-3095	58.72	Demand	0.00	Fixed	0.00	198.30	60.39
J-3100	58.88	Demand	0.00	Fixed	0.00	198.25	60.30
J-3110	61.00	Demand	0.00	Fixed	0.00	198.21	59.36
J-3120	60.39	Demand	0.00	Fixed	0.00	198.16	59.61
J-3130	48.01	Demand	10.00	Fixed	20.00	198.19	64.98
J-3140	50.20	Demand	0.00	Fixed	0.00	198.23	64.04
J-3150	51.44	Demand	0.00	Fixed	0.00	198.16	63.48
J-3160	53.00	Demand	0.00	Fixed	0.00	198.19	62.82
J-3170	50.11	Demand	0.00	Fixed	0.00	198.16	64.06
J-3180	49.07	Demand	0.00	Fixed	0.00	198.16	64.50
J-3190	50.06	Demand	16.00	Fixed	32.00	198.16	64.08
J-3200	55.32	Demand	0.00	Fixed	0.00	198.20	61.82

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Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-3210	55.87	Demand	0.00	Fixed	0.00	198.21	61.59
J-3220	54.25	Demand	16.00	Fixed	32.00	198.23	62.29
J-3225	54.24	Demand	15.60	Fixed	31.20	198.27	62.31
J-3230	55.08	Demand	0.00	Fixed	0.00	198.41	62.01
J-3240	56.90	Demand	0.00	Fixed	0.00	198.32	61.19
J-3245	56.71	Demand	18.80	Fixed	37.60	198.24	61.23
J-3250	55.40	Demand	0.00	Fixed	0.00	198.22	61.79
J-3260	55.61	Demand	0.00	Fixed	0.00	198.36	61.76
J-3265	55.50	Demand	17.60	Fixed	35.20	198.22	61.75
J-3270	54.08	Demand	0.00	Fixed	0.00	198.66	62.55
J-3275	51.00	Demand	0.00	Fixed	0.00	198.27	63.72
J-3280	51.98	Demand	0.00	Fixed	0.00	198.19	63.26
J-3285	52.18	Demand	12.40	Fixed	24.80	198.19	63.17
J-3290	49.48	Demand	0.00	Fixed	0.00	198.19	64.34
J-3300	49.59	Demand	0.00	Fixed	0.00	198.21	64.30
J-3310	50.62	Demand	13.56	Fixed	27.12	198.19	63.84
J-3320	51.05	Demand	0.00	Fixed	0.00	198.21	63.67
J-3330	61.03	Demand	0.00	Fixed	0.00	198.67	59.55
J-3340	59.54	Demand	0.00	Fixed	0.00	198.67	60.20
J-3350	59.70	Demand	19.60	Fixed	39.20	198.26	59.95
J-3360	61.10	Demand	0.00	Fixed	0.00	198.26	59.34
J-3370	55.12	Demand	22.88	Fixed	45.76	197.78	61.72
J-3380	55.04	Demand	13.50	Fixed	27.00	197.78	61.76
J-3390	54.92	Demand	9.00	Fixed	18.00	197.78	61.81
J-3400	49.53	Demand	6.40	Fixed	12.80	198.19	64.32
J-3410	50.82	Demand	8.80	Fixed	17.60	198.19	63.76
J-3420	58.00	Demand	0.00	Fixed	0.00	200.91	61.83
J-5000	76.20	Demand	0.00	Fixed	0.00	198.01	52.70
J-5001	63.00	Demand	2.40	Fixed	4.80	197.95	58.39

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-1	1,577.00	12.0	130.0	0.00	Open	-221.70	0.16	0.25	0.63
P-2	458.00	8.0	130.0	0.00	Open	-173.70	0.71	0.33	1.11
P-3	496.00	8.0	130.0	0.00	Open	-29.75	0.03	0.01	0.19
P-4	717.00	8.0	130.0	0.00	Open	52.94	0.08	0.06	0.34
P-5	182.00	8.0	130.0	0.00	Open	-72.54	0.14	0.03	0.46
P-7	333.00	8.0	130.0	0.00	Open	125.20	0.39	0.13	0.80
P-8	134.00	8.0	130.0	0.00	Open	38.19	0.04	0.01	0.24
P-9	612.00	8.0	130.0	0.00	Open	26.19	0.02	0.01	0.17
P-10	485.00	10.0	130.0	0.00	Open	-215.82	0.36	0.17	0.88
P-11	257.00	8.0	130.0	0.00	Open	8.80	0.00	0.00	0.06
P-12	271.00	6.0	130.0	0.20	Open	5.39	0.00	0.00	0.06
P-13	280.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-14	381.00	8.0	130.0	0.00	Open	-5.39	0.00	0.00	0.03
P-15	468.00	10.0	130.0	0.00	Open	5.59	0.00	0.00	0.02
P-16	278.00	8.0	130.0	0.00	Open	5.01	0.00	0.00	0.03
P-17	325.00	8.0	130.0	0.00	Open	15.41	0.01	0.00	0.10
P-18	239.00	8.0	130.0	0.00	Open	-8.75	0.00	0.00	0.06
P-19	310.00	8.0	130.0	0.00	Open	-19.95	0.01	0.00	0.13
P-20	630.00	12.0	130.0	0.00	Open	-108.17	0.04	0.03	0.31
P-21	368.00	8.0	130.0	0.00	Open	-34.35	0.04	0.01	0.22
P-22	197.00	8.0	130.0	0.00	Open	6.66	0.00	0.00	0.04
P-23	248.00	8.0	130.0	0.00	Open	82.69	0.18	0.04	0.53
P-24	248.00	8.0	130.0	0.00	Open	82.69	0.18	0.04	0.53
P-25	289.00	8.0	130.0	0.00	Open	35.81	0.04	0.01	0.23
P-27	262.00	8.0	130.0	0.00	Open	35.81	0.04	0.01	0.23
P-29	202.00	8.0	130.0	0.00	Open	24.77	0.02	0.00	0.16
P-30	369.00	10.0	130.0	0.40	Open	-17.41	0.00	0.00	0.07
P-30A	217.00	10.0	130.0	0.00	Open	18.46	0.00	0.00	0.08
P-31	140.00	8.0	130.0	0.00	Open	-11.04	0.00	0.00	0.07
P-32	209.00	8.0	130.0	0.00	Open	-14.19	0.01	0.00	0.09
P-33	233.00	8.0	130.0	0.00	Open	13.99	0.01	0.00	0.09
P-34	221.00	8.0	130.0	0.00	Open	13.99	0.01	0.00	0.09
P-35	218.00	8.0	130.0	0.00	Open	-4.13	0.00	0.00	0.03
P-36	131.00	8.0	130.0	0.00	Open	-4.13	0.00	0.00	0.03
P-37	287.00	8.0	130.0	0.00	Open	-32.25	0.03	0.01	0.21
P-38	128.00	8.0	130.0	0.00	Open	-32.25	0.03	0.00	0.21
P-39	190.00	8.0	130.0	0.00	Open	-32.25	0.03	0.01	0.21
P-40	812.00	10.0	130.0	0.20	Open	159.82	0.21	0.17	0.65
P-41	244.00	8.0	130.0	0.00	Open	-70.37	0.13	0.03	0.45
P-42	161.00	8.0	130.0	0.00	Open	-137.29	0.46	0.07	0.88
P-43	353.00	8.0	130.0	0.00	Open	28.18	0.02	0.01	0.18
P-44	161.00	8.0	130.0	0.00	Open	48.80	0.07	0.01	0.31
P-45	141.00	8.0	130.0	0.00	Open	48.80	0.07	0.01	0.31
P-46	162.00	8.0	130.0	0.00	Open	66.92	0.12	0.02	0.43
P-47	189.00	8.0	130.0	0.00	Open	0.28	0.00	0.00	0.00
P-48	187.00	8.0	130.0	0.00	Open	57.76	0.09	0.02	0.37
P-49	175.00	8.0	130.0	0.00	Open	26.50	0.02	0.00	0.17
P-50	1,311.00	12.0	130.0	0.20	Open	-116.64	0.05	0.06	0.33
P-51	274.00	8.0	130.0	0.00	Open	58.04	0.09	0.03	0.37
P-52	118.00	8.0	130.0	0.00	Open	155.30	0.58	0.07	0.99
P-53	275.00	10.0	130.0	0.00	Open	78.04	0.05	0.02	0.32

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-54	221.00	8.0	130.0	0.00	Open	58.04	0.09	0.02	0.37
P-55	281.00	8.0	130.0	0.00	Open	67.26	0.12	0.03	0.43
P-56	155.00	8.0	130.0	0.00	Open	67.26	0.12	0.02	0.43
P-57	227.00	8.0	130.0	0.00	Open	46.00	0.06	0.01	0.29
P-58	231.00	8.0	130.0	0.00	Open	46.00	0.06	0.01	0.29
P-59	190.00	8.0	130.0	0.00	Open	18.50	0.01	0.00	0.12
P-60	407.00	8.0	130.0	0.40	Open	-45.55	0.06	0.02	0.29
P-62	184.00	8.0	130.0	0.00	Open	16.50	0.01	0.00	0.11
P-70	394.00	8.0	130.0	0.00	Open	84.05	0.19	0.07	0.54
P-77	439.00	8.0	130.0	0.00	Open	-18.16	0.01	0.00	0.12
P-80	182.00	8.0	130.0	0.00	Open	74.83	0.15	0.03	0.48
P-90	315.00	8.0	130.0	0.00	Open	82.65	0.18	0.06	0.53
P-100	787.00	8.0	130.0	0.00	Open	-20.32	0.01	0.01	0.13
P-110	173.00	8.0	130.0	0.00	Open	1.05	0.00	0.00	0.01
P-120	438.00	8.0	130.0	0.00	Open	-19.27	0.01	0.01	0.12
P-130	875.00	8.0	130.0	0.00	Open	23.93	0.02	0.02	0.15
P-139	122.00	10.0	130.0	0.00	Open	-165.08	0.22	0.03	0.67
P-150A	434.00	8.0	130.0	0.00	Open	2.59	0.00	0.00	0.02
P-150B	464.00	8.0	130.0	0.00	Open	7.82	0.00	0.00	0.05
P-150C	283.00	8.0	130.0	0.00	Open	-5.23	0.00	0.00	0.03
P-160	805.00	8.0	130.0	0.00	Open	2.59	0.00	0.00	0.02
P-170	81.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-180	331.00	8.0	130.0	0.00	Open	39.02	0.04	0.01	0.25
P-190	171.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-200	282.00	8.0	130.0	0.00	Open	-9.22	0.00	0.00	0.06
P-210	227.00	8.0	130.0	0.00	Open	39.02	0.04	0.01	0.25
P-220	518.00	12.0	130.0	0.00	Open	532.73	0.79	0.41	1.51
P-230	493.00	10.0	130.0	0.00	Open	-261.87	0.52	0.25	1.07
P-240	258.00	10.0	130.0	0.00	Open	-132.04	0.14	0.04	0.54
P-250	392.00	8.0	130.0	0.00	Open	129.82	0.42	0.16	0.83
P-270	152.00	8.0	130.0	0.00	Open	129.82	0.42	0.06	0.83
P-270A	100.00	8.0	130.0	0.00	Open	-318.78	2.20	0.22	2.03
P-280	270.00	8.0	130.0	0.00	Open	-75.35	0.15	0.04	0.48
P-290	327.00	8.0	130.0	0.00	Open	160.15	0.61	0.20	1.02
P-300	276.00	6.0	130.0	0.00	Open	6.67	0.01	0.00	0.08
P-310	264.00	8.0	130.0	0.00	Open	-121.48	0.37	0.10	0.78
P-320	644.00	6.0	130.0	0.00	Open	6.67	0.01	0.00	0.08
P-329	557.00	8.0	130.0	0.00	Open	-28.38	0.02	0.01	0.18
P-330	506.00	6.0	130.0	0.00	Open	38.67	0.18	0.09	0.44
P-340	236.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-350	149.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-360	931.00	8.0	130.0	0.00	Open	-94.55	0.23	0.22	0.60
P-362	861.00	8.0	130.0	0.00	Open	29.46	0.03	0.02	0.19
P-364	575.00	8.0	130.0	0.00	Open	125.48	0.39	0.22	0.80
P-370	141.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-380	558.00	8.0	130.0	0.00	Open	121.02	0.37	0.20	0.77
P-389	165.00	8.0	130.0	0.00	Open	-25.23	0.02	0.00	0.16
P-390	185.00	8.0	130.0	0.00	Open	178.27	0.75	0.14	1.14
P-400	419.00	6.0	130.0	0.00	Open	49.25	0.28	0.12	0.56
P-410	337.00	8.0	130.0	0.00	Open	33.83	0.03	0.01	0.22
P-420	269.00	6.0	130.0	0.00	Open	42.62	0.21	0.06	0.48

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-422	241.00	8.0	130.0	0.00	Open	16.50	0.01	0.00	0.11
P-423	248.00	8.0	130.0	0.00	Open	18.50	0.01	0.00	0.12
P-424	10.00	16.0	130.0	0.00	Open	1,749.69	1.76	0.02	2.79
P-425	10.00	16.0	130.0	0.00	Open	1,749.69	1.76	0.02	2.79
P-426	102.00	16.0	130.0	0.00	Open	1,038.21	0.67	0.07	1.66
P-427	10.00	16.0	130.0	0.00	Open	1,507.05	1.33	0.01	2.40
P-428	10.00	16.0	130.0	0.00	Open	1,507.06	1.33	0.01	2.40
P-429	10.00	16.0	130.0	0.00	Open	1,507.06	1.34	0.01	2.40
P-430	435.00	6.0	130.0	0.00	Open	3.77	0.00	0.00	0.04
P-432	190.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-434	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-435	20.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-436	606.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-437	161.00	8.0	130.0	5.00	Closed	0.00	0.00	0.00	0.00
P-438	399.00	8.0	130.0	0.00	Open	158.62	0.60	0.24	1.01
P-439	514.00	8.0	130.0	0.00	Open	107.60	0.29	0.15	0.69
P-440	131.00	8.0	130.0	0.00	Open	-29.85	0.03	0.00	0.19
P-441	359.00	6.0	130.0	0.00	Open	76.80	0.64	0.23	0.87
P-442	381.00	6.0	130.0	0.00	Open	33.70	0.14	0.05	0.38
P-443	618.00	6.0	130.0	0.00	Open	12.00	0.02	0.01	0.14
P-444	428.00	6.0	130.0	0.00	Open	7.02	0.01	0.00	0.08
P-445	577.00	6.0	130.0	0.00	Open	2.04	0.00	0.00	0.02
P-446	432.00	6.0	130.0	0.00	Open	-16.72	0.04	0.02	0.19
P-447	261.00	6.0	130.0	0.00	Open	13.78	0.03	0.01	0.16
P-448	416.00	6.0	130.0	0.00	Open	4.98	0.00	0.00	0.06
P-449	406.00	6.0	130.0	0.00	Open	3.82	0.00	0.00	0.04
P-450	298.00	8.0	130.0	0.00	Open	82.05	0.18	0.05	0.52
P-451	276.00	6.0	130.0	0.00	Open	-1.16	0.00	0.00	0.01
P-452	442.00	6.0	130.0	0.00	Open	-38.12	0.17	0.08	0.43
P-453	249.00	8.0	130.0	0.00	Open	1.66	0.00	0.00	0.01
P-454	474.00	6.0	130.0	0.00	Open	-3.32	0.00	0.00	0.04
P-455	282.00	6.0	130.0	0.00	Open	4.98	0.00	0.00	0.06
P-456	228.00	6.0	130.0	0.00	Open	31.98	0.13	0.03	0.36
P-457	187.00	6.0	130.0	0.00	Open	29.92	0.11	0.02	0.34
P-458	224.00	6.0	130.0	0.00	Open	4.98	0.00	0.00	0.06
P-459	406.00	6.0	130.0	0.00	Open	-2.93	0.00	0.00	0.03
P-460	584.00	8.0	130.0	0.00	Open	-28.82	0.03	0.01	0.18
P-461	154.00	6.0	130.0	0.00	Open	-7.91	0.01	0.00	0.09
P-462	374.00	6.0	130.0	0.00	Open	-46.04	0.25	0.09	0.52
P-463	198.00	6.0	130.0	0.00	Open	33.16	0.14	0.03	0.38
P-464	179.00	6.0	130.0	0.00	Open	4.98	0.00	0.00	0.06
P-465	239.00	6.0	130.0	0.00	Open	23.20	0.07	0.02	0.26
P-466	172.00	6.0	130.0	0.00	Open	4.94	0.00	0.00	0.06
P-467	208.00	6.0	130.0	0.00	Open	-5.02	0.00	0.00	0.06
P-468	384.00	6.0	130.0	0.00	Open	-19.96	0.05	0.02	0.23
P-469	206.00	6.0	130.0	0.00	Open	9.96	0.01	0.00	0.11
P-470	269.00	8.0	130.0	0.00	Open	-1.03	0.00	0.00	0.01
P-471	138.00	6.0	130.0	0.00	Open	4.98	0.00	0.00	0.06
P-472	453.00	6.0	130.0	0.00	Open	4.98	0.00	0.00	0.06
P-473	572.00	6.0	130.0	0.00	Open	-13.28	0.02	0.01	0.15
P-474	1,161.00	12.0	130.0	0.00	Open	48.00	0.01	0.01	0.14

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-475	1,234.00	12.0	130.0	0.00	Open	32.00	0.00	0.04	0.09
P-476	1,214.00	12.0	130.0	0.00	Open	16.00	0.00	0.00	0.05
P-477	230.00	12.0	130.0	0.00	Closed	0.00	0.00	0.00	0.00
P-480	298.00	8.0	130.0	0.00	Open	16.47	0.01	0.00	0.11
P-482	246.00	8.0	130.0	0.00	Open	-103.83	0.28	0.07	0.66
P-484	532.00	8.0	130.0	0.00	Open	-186.70	0.82	0.43	1.19
P-485	189.00	8.0	130.0	0.00	Open	-186.70	0.82	0.15	1.19
P-488	298.00	8.0	130.0	0.00	Open	84.69	0.19	0.06	0.54
P-490	266.00	8.0	130.0	0.00	Open	-0.47	0.00	0.00	0.00
P-491	460.00	12.0	130.0	0.00	Open	60.79	0.01	0.01	0.17
P-492	230.00	12.0	130.0	0.00	Open	48.63	0.01	0.00	0.14
P-493	94.00	8.0	130.0	0.00	Open	294.00	1.89	0.18	1.88
P-494	297.00	8.0	130.0	0.00	Open	149.64	0.54	0.16	0.96
P-495	296.00	8.0	130.0	0.00	Open	40.67	0.05	0.01	0.26
P-496	615.00	8.0	130.0	0.00	Open	35.16	0.04	0.02	0.22
P-498	152.00	8.0	130.0	0.00	Open	-17.52	0.01	0.00	0.11
P-499	132.00	8.0	130.0	0.00	Open	35.07	0.04	0.00	0.22
P-500	445.00	6.0	130.0	0.00	Open	-6.96	0.01	0.00	0.08
P-501	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-502	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-503	300.00	8.0	130.0	25.00	Open	0.00	0.00	0.00	0.00
P-504	99.00	8.0	130.0	0.00	Open	127.91	0.41	0.04	0.82
P-506	238.00	8.0	130.0	0.00	Open	124.71	0.39	0.09	0.80
P-507	652.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-508	317.00	12.0	130.0	0.00	Open	24.53	0.00	0.00	0.07
P-509	343.00	12.0	130.0	0.00	Open	24.53	0.00	0.00	0.07
P-510	348.00	8.0	130.0	0.00	Open	6.81	0.00	0.00	0.04
P-511	71.00	8.0	130.0	0.00	Open	24.53	0.02	0.00	0.16
P-512	119.00	8.0	130.0	0.00	Open	24.53	0.02	0.00	0.16
P-513	139.00	8.0	130.0	0.00	Open	24.53	0.02	0.00	0.16
P-514	201.00	8.0	130.0	0.00	Open	14.65	0.01	0.00	0.09
P-515	285.00	8.0	130.0	0.00	Open	-14.09	0.01	0.00	0.09
P-516	178.00	8.0	130.0	0.00	Open	-21.39	0.01	0.00	0.14
P-517	201.00	8.0	130.0	0.00	Open	4.82	0.00	0.00	0.03
P-518	92.00	8.0	130.0	0.00	Open	-0.24	0.00	0.00	0.00
P-519	300.00	8.0	130.0	0.00	Open	-13.88	0.01	0.00	0.09
P-520	558.00	8.0	130.0	0.00	Open	2.47	0.00	0.00	0.02
P-521	359.00	8.0	130.0	0.00	Open	-13.88	0.01	0.00	0.09
P-522	292.00	8.0	130.0	0.00	Open	10.13	0.00	0.00	0.06
P-523	177.00	8.0	130.0	0.00	Open	-31.31	0.03	0.01	0.20
P-524	193.00	8.0	130.0	0.00	Open	-42.13	0.05	0.01	0.27
P-525	407.00	8.0	130.0	0.00	Open	-49.33	0.07	0.03	0.31
P-526	172.00	8.0	130.0	0.00	Open	-57.33	0.09	0.02	0.37
P-527	188.00	8.0	130.0	0.00	Open	79.03	0.17	0.03	0.50
P-528	203.00	8.0	130.0	0.00	Open	3.20	0.00	0.00	0.02
P-529	295.00	8.0	130.0	0.00	Open	-139.56	0.48	0.14	0.89
P-530	432.00	10.0	130.0	0.00	Open	-305.49	0.69	0.30	1.25
P-531	265.00	8.0	130.0	0.00	Open	30.27	0.03	0.01	0.19
P-532	309.00	8.0	130.0	0.00	Open	-39.91	0.05	0.01	0.25
P-533	397.00	8.0	130.0	0.00	Open	-44.71	0.06	0.02	0.29
P-534	299.00	8.0	130.0	0.00	Open	94.53	0.23	0.07	0.60

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-535	295.00	8.0	130.0	0.00	Open	2.63	0.00	0.00	0.02
P-536	297.00	8.0	130.0	0.00	Open	-2.97	0.00	0.00	0.02
P-537	284.00	8.0	130.0	0.00	Open	-63.79	0.11	0.03	0.41
P-538	475.00	8.0	130.0	0.00	Open	-49.62	0.07	0.03	0.32
P-539	276.00	8.0	130.0	0.00	Open	-54.42	0.08	0.02	0.35
P-540	864.00	8.0	130.0	0.00	Open	54.87	0.08	0.07	0.35
P-541	137.00	8.0	130.0	0.00	Open	-181.21	0.77	0.11	1.16
P-542	249.00	8.0	130.0	0.00	Open	-181.21	0.77	0.19	1.16
P-543	162.00	8.0	130.0	0.00	Open	-77.38	0.16	0.03	0.49
P-544	122.00	12.0	130.0	0.00	Open	383.77	0.43	0.05	1.09
P-545	287.00	12.0	130.0	0.00	Open	-465.95	0.62	0.18	1.32
P-546	400.00	8.0	130.0	0.00	Open	66.70	0.12	0.05	0.43
P-547	293.00	12.0	130.0	0.00	Open	-540.65	0.81	0.24	1.53
P-548	400.00	8.0	130.0	0.00	Open	166.83	0.66	0.27	1.06
P-549	137.00	8.0	130.0	0.00	Open	111.30	0.31	0.04	0.71
P-550	282.00	10.0	130.0	0.00	Open	360.36	0.93	0.26	1.47
P-551	209.00	8.0	130.0	0.00	Open	111.30	0.31	0.07	0.71
P-552	210.00	12.0	130.0	0.00	Open	711.48	1.35	0.28	2.02
P-553	299.00	8.0	130.0	0.00	Open	49.93	0.07	0.02	0.32
P-554	281.00	8.0	130.0	0.00	Open	110.23	0.31	0.09	0.70
P-555	143.00	6.0	130.0	0.00	Open	-73.85	0.59	0.09	0.84
P-556	622.00	6.0	130.0	0.00	Open	48.47	0.27	0.17	0.55
P-557	147.00	8.0	130.0	0.00	Open	122.31	0.37	0.05	0.78
P-558	1,232.00	8.0	130.0	0.00	Open	122.31	0.37	0.46	0.78
P-559	325.00	8.0	130.0	0.00	Open	122.31	0.37	0.12	0.78
P-560	343.00	8.0	130.0	0.00	Open	66.55	0.12	0.04	0.42
P-560A	288.00	8.0	130.0	0.00	Open	52.15	0.08	0.02	0.33
P-570	269.00	10.0	130.0	0.00	Open	229.21	0.40	0.11	0.94
P-580	483.00	12.0	130.0	0.00	Open	244.58	0.19	0.09	0.69
P-600	376.00	8.0	130.0	0.00	Open	18.80	0.01	0.00	0.12
P-610	265.00	8.0	130.0	0.00	Open	-12.20	0.01	0.00	0.08
P-620	497.00	8.0	130.0	0.00	Open	10.99	0.00	0.00	0.07
P-630	208.00	6.0	130.0	0.00	Open	7.81	0.01	0.00	0.09
P-640	403.00	10.0	130.0	0.00	Open	-261.14	0.51	0.21	1.07
P-650	190.00	8.0	130.0	0.00	Open	44.35	0.06	0.01	0.28
P-660	545.00	8.0	130.0	0.00	Open	21.66	0.02	0.01	0.14
P-670	233.00	8.0	130.0	0.00	Open	-45.40	0.06	0.01	0.29
P-690	289.00	8.0	130.0	0.00	Open	-26.55	0.02	0.01	0.17
P-690A	101.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-700	1,031.00	8.0	130.0	0.00	Open	4.15	0.00	0.00	0.03
P-710	128.00	8.0	130.0	0.00	Open	-21.66	0.02	0.00	0.14
P-710A	105.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-720	393.00	10.0	130.0	0.00	Open	-400.69	1.13	0.45	1.64
P-730	203.00	8.0	130.0	0.00	Open	139.55	0.48	0.10	0.89
P-740	274.00	8.0	130.0	0.00	Open	56.00	0.09	0.02	0.36
P-750	206.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-760	266.00	6.0	130.0	0.00	Open	-8.41	0.01	0.00	0.10
P-770	421.00	8.0	130.0	0.00	Open	64.41	0.11	0.05	0.41
P-780	663.00	6.0	130.0	0.00	Open	24.39	0.08	0.05	0.28
P-790	147.00	6.0	130.0	0.00	Open	33.89	0.14	0.02	0.38
P-800	264.00	6.0	130.0	0.00	Open	50.75	0.30	0.08	0.58

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-810	273.00	8.0	130.0	0.00	Open	46.46	0.06	0.02	0.30
P-820	481.00	6.0	130.0	0.00	Open	-9.54	0.01	0.01	0.11
P-830	553.00	6.0	130.0	0.00	Open	38.85	0.18	0.10	0.44
P-840	244.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-850	776.00	10.0	130.0	0.00	Open	180.62	0.26	0.20	0.74
P-860	192.00	8.0	130.0	0.00	Open	-5.95	0.00	0.00	0.04
P-870	156.00	10.0	130.0	0.00	Open	-87.21	0.07	0.01	0.36
P-880	607.00	8.0	130.0	0.00	Open	-18.85	0.01	0.01	0.12
P-880A	268.00	8.0	130.0	0.00	Closed	0.00	0.00	0.00	0.00
P-890	279.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-900	192.00	8.0	130.0	0.00	Open	15.70	0.01	0.00	0.10
P-910	663.00	8.0	130.0	0.00	Open	15.70	0.01	0.01	0.10
P-920	375.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-930	227.00	8.0	130.0	0.00	Open	54.54	0.08	0.02	0.35
P-940	268.00	8.0	130.0	0.00	Open	54.54	0.08	0.02	0.35
P-950	214.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-960A	385.00	8.0	130.0	0.00	Open	-3.74	0.00	0.00	0.02
P-960B	484.00	8.0	130.0	0.00	Open	-3.74	0.00	0.00	0.02
P-970	515.00	6.0	130.0	0.00	Open	-19.42	0.05	0.03	0.22
P-980	267.00	6.0	130.0	0.00	Open	11.60	0.02	0.01	0.13
P-990	256.00	8.0	130.0	0.00	Open	-4.08	0.00	0.00	0.03
P-1000	468.00	6.0	130.0	0.00	Open	-7.82	0.01	0.00	0.09
P-1000	136.00	6.0	130.0	0.00	Open	-3.74	0.00	0.00	0.04
P-1010	230.00	8.0	130.0	0.00	Open	69.76	0.13	0.03	0.45
P-1030	261.00	8.0	130.0	0.00	Open	89.18	0.21	0.05	0.57
P-1040	332.00	8.0	130.0	0.00	Open	99.25	0.25	0.08	0.63
P-1050	315.00	8.0	130.0	0.00	Open	15.70	0.01	0.00	0.10
P-1060	499.00	8.0	130.0	0.00	Open	81.35	0.18	0.09	0.52
P-1070	590.00	10.0	130.0	0.00	Open	164.93	0.22	0.13	0.67
P-1080	509.00	6.0	130.0	0.00	Open	0.15	0.00	0.00	0.00
P-1090	188.00	8.0	130.0	0.00	Open	32.39	0.03	0.01	0.21
P-1100	533.00	8.0	130.0	0.00	Open	57.19	0.09	0.05	0.37
P-1110	211.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1120	456.00	8.0	130.0	0.00	Open	32.39	0.03	0.01	0.21
P-1130	295.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1140	211.00	10.0	130.0	0.00	Open	5.59	0.00	0.00	0.02
P-1145	509.00	10.0	130.0	0.00	Open	119.60	0.12	0.06	0.49
P-1150	199.00	8.0	130.0	0.00	Open	-54.93	0.08	0.02	0.35
P-1160	820.00	8.0	130.0	0.00	Open	-32.63	0.03	0.03	0.21
P-1170	286.00	8.0	130.0	0.00	Open	-43.51	0.06	0.02	0.28
P-1180	132.00	8.0	130.0	0.00	Open	73.07	0.14	0.02	0.47
P-1200	174.00	8.0	130.0	0.00	Open	77.87	0.16	0.03	0.50
P-1210	163.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1220	306.00	8.0	130.0	0.00	Open	-63.47	0.11	0.03	0.41
P-1230	249.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1240	777.00	8.0	130.0	0.00	Open	20.27	0.01	0.01	0.13
P-1250	505.00	6.0	130.0	0.00	Open	1.56	0.00	0.00	0.02
P-1260	263.00	6.0	130.0	0.00	Open	11.30	0.02	0.00	0.13
P-1270	189.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1280	818.00	6.0	130.0	0.00	Open	11.10	0.02	0.01	0.13
P-1290	259.00	6.0	130.0	0.00	Open	22.30	0.06	0.02	0.25

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-1300	188.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1320	294.00	16.0	130.0	0.00	Open	-851.51	0.46	0.14	1.36
P-1330	781.00	12.0	130.0	0.00	Open	-200.18	0.13	0.10	0.57
P-1340	1,202.00	8.0	130.0	40.00	Open	92.01	0.40	0.48	0.59
P-1350	838.00	8.0	130.0	40.00	Open	95.99	0.52	0.43	0.61
P-1360	717.00	10.0	130.0	0.00	Open	54.42	0.03	0.02	0.22
P-1370	301.00	12.0	130.0	0.00	Open	36.35	0.01	0.00	0.10
P-1380	491.00	16.0	130.0	0.00	Open	79.20	0.01	0.00	0.13
P-1440	926.00	12.0	130.0	0.00	Open	-42.85	0.01	0.01	0.12
P-1450	819.00	12.0	130.0	0.00	Open	15.63	0.00	0.00	0.04
P-1460	425.00	6.0	130.0	0.00	Open	24.15	0.08	0.03	0.27
P-1470	613.00	6.0	130.0	0.00	Open	16.76	0.04	0.02	0.19
P-1490	513.00	8.0	130.0	0.00	Open	-4.01	0.00	0.00	0.03
P-1500	214.00	6.0	130.0	0.00	Open	-1.79	0.00	0.00	0.02
P-1510	515.00	8.0	130.0	0.00	Open	-52.15	0.08	0.04	0.33
P-1520	412.00	6.0	130.0	0.00	Open	14.97	0.03	0.01	0.17
P-1590	428.00	6.0	130.0	0.00	Open	2.47	0.00	0.00	0.03
P-1605	674.00	12.0	130.0	0.00	Open	71.09	0.02	0.01	0.20
P-1620	364.00	12.0	130.0	0.00	Open	375.77	0.41	0.15	1.07
P-1640	209.00	8.0	130.0	0.00	Open	-35.51	0.04	0.01	0.23
P-1855	1,339.00	12.0	130.0	0.00	Open	54.23	0.01	0.02	0.15
P-1860	468.00	12.0	130.0	0.00	Open	15.63	0.00	0.00	0.04
P-1875	1,324.00	10.0	130.0	0.00	Open	54.23	0.03	0.04	0.22
P-1915	227.00	8.0	130.0	0.00	Open	6.46	0.00	0.00	0.04
P-1920	465.00	8.0	130.0	0.00	Open	5.47	0.00	0.00	0.03
P-1925	137.00	8.0	130.0	0.00	Open	14.27	0.01	0.00	0.09
P-1930	174.00	8.0	130.0	0.00	Open	-27.40	0.02	0.00	0.17
P-1935	238.00	8.0	130.0	0.00	Open	-38.60	0.04	0.01	0.25
P-1950	473.00	10.0	130.0	0.00	Open	-69.28	0.04	0.02	0.28
P-1955	350.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1960	325.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1965	460.00	8.0	130.0	0.00	Open	-13.13	0.01	0.00	0.08
P-1970	341.00	8.0	130.0	0.00	Open	-5.13	0.00	0.00	0.03
P-1975	424.00	8.0	130.0	0.00	Open	3.67	0.00	0.00	0.02
P-1980	255.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1985	258.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1990	258.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1995	287.00	8.0	130.0	0.00	Open	25.75	0.02	0.01	0.16
P-2000	299.00	8.0	130.0	0.00	Open	-173.49	0.71	0.21	1.11
P-2005	306.00	8.0	130.0	0.00	Open	25.75	0.02	0.01	0.16
P-2010	1,308.00	8.0	130.0	0.00	Open	-31.58	0.03	0.04	0.20
P-2015	934.00	8.0	130.0	0.00	Open	-9.28	0.00	0.00	0.06
P-2020	299.00	8.0	130.0	0.00	Open	8.38	0.00	0.00	0.05
P-2025	296.00	8.0	130.0	0.00	Open	-0.99	0.00	0.00	0.01
P-2030	274.00	8.0	130.0	0.00	Open	25.80	0.02	0.01	0.16
P-2035	301.00	8.0	130.0	0.00	Open	12.32	0.01	0.00	0.08
P-2040	334.00	8.0	130.0	0.00	Open	43.62	0.06	0.02	0.28
P-2050	168.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2055	298.00	8.0	130.0	0.00	Open	16.47	0.01	0.00	0.11
P-2060	680.00	8.0	130.0	0.00	Open	52.42	0.08	0.05	0.33
P-2070	684.00	6.0	130.0	0.00	Open	7.42	0.01	0.01	0.08

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-2080	418.00	8.0	130.0	0.00	Open	1.43	0.00	0.00	0.01
P-2085	640.00	8.0	130.0	0.00	Open	-26.12	0.02	0.01	0.17
P-2090	748.00	6.0	130.0	0.00	Open	0.76	0.00	0.00	0.01
P-2095	259.00	8.0	130.0	0.00	Open	69.47	0.13	0.03	0.44
P-2100	378.00	6.0	130.0	0.00	Open	0.76	0.00	0.00	0.01
P-2110	349.00	8.0	130.0	0.00	Open	9.60	0.00	0.00	0.06
P-2120	954.00	8.0	130.0	0.00	Open	141.92	0.49	0.47	0.91
P-2130	903.00	6.0	130.0	0.00	Open	68.72	0.52	0.47	0.78
P-2135	554.00	10.0	130.0	0.00	Open	80.13	0.06	0.03	0.33
P-2140	388.00	6.0	130.0	0.00	Open	6.40	0.01	0.00	0.07
P-2145	444.00	6.0	130.0	0.00	Open	80.13	0.69	0.31	0.91
P-2150	302.00	6.0	130.0	0.00	Open	47.92	0.27	0.08	0.54
P-2155	187.00	8.0	130.0	0.00	Open	-80.90	0.17	0.03	0.52
P-2160	306.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2165	374.00	8.0	130.0	0.00	Open	151.48	0.55	0.21	0.97
P-2170	284.00	6.0	130.0	0.00	Open	39.12	0.18	0.05	0.44
P-2175	712.00	10.0	130.0	0.00	Open	123.51	0.13	0.09	0.50
P-2180	309.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2185	445.00	8.0	130.0	0.00	Open	43.38	0.05	0.02	0.28
P-2190	216.00	8.0	130.0	0.00	Open	98.50	0.25	0.05	0.63
P-2195	303.00	6.0	130.0	0.00	Open	-19.69	0.05	0.02	0.22
P-2200	320.00	8.0	130.0	0.00	Open	123.19	0.38	0.12	0.79
P-2205	364.00	6.0	130.0	0.00	Open	-19.69	0.05	0.02	0.22
P-2210	546.00	8.0	130.0	0.00	Open	243.61	1.34	0.73	1.55
P-2215	376.00	8.0	130.0	0.00	Open	70.01	0.13	0.05	0.45
P-2220	212.00	6.0	130.0	0.00	Open	-57.19	0.37	0.08	0.65
P-2225	303.00	6.0	130.0	0.00	Open	-19.69	0.05	0.02	0.22
P-2230	290.00	8.0	130.0	0.00	Open	300.80	1.97	0.57	1.92
P-2235	173.00	8.0	130.0	0.00	Open	161.08	0.62	0.11	1.03
P-2240	616.00	6.0	130.0	0.00	Open	24.72	0.08	0.05	0.28
P-2245	301.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2250	146.00	8.0	130.0	0.00	Open	89.42	0.21	0.03	0.57
P-2260	267.00	8.0	130.0	0.00	Open	-188.90	0.83	0.22	1.21
P-2265	823.00	10.0	130.0	0.00	Open	-80.71	0.06	0.05	0.33
P-2270	266.00	8.0	130.0	0.00	Open	178.80	0.75	0.20	1.14
P-2275	610.00	10.0	130.0	0.00	Open	-41.58	0.02	0.01	0.17
P-2280	318.00	8.0	130.0	0.00	Open	135.23	0.45	0.14	0.86
P-2290	450.00	8.0	130.0	0.00	Open	64.90	0.12	0.05	0.41
P-2300	343.00	8.0	130.0	0.00	Open	40.06	0.05	0.02	0.26
P-2305	281.00	8.0	130.0	0.00	Open	40.06	0.05	0.01	0.26
P-2310	383.00	8.0	130.0	0.00	Open	-114.30	0.33	0.13	0.73
P-2320	210.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2330	270.00	8.0	130.0	0.00	Open	99.90	0.26	0.07	0.64
P-2340	258.00	6.0	130.0	0.00	Open	31.29	0.12	0.03	0.36
P-2350	252.00	6.0	130.0	0.00	Open	-10.10	0.01	0.00	0.11
P-2360	395.00	8.0	130.0	0.00	Open	68.61	0.13	0.05	0.44
P-2370	416.00	8.0	130.0	0.00	Open	68.61	0.13	0.05	0.44
P-2380	141.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2390	273.00	8.0	130.0	0.00	Open	-54.21	0.08	0.02	0.35
P-2400	398.00	6.0	130.0	0.00	Open	-41.39	0.20	0.08	0.47
P-2410	408.00	6.0	130.0	0.00	Open	-15.79	0.03	0.01	0.18

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-2420	583.00	8.0	130.0	0.00	Open	-70.00	0.13	0.08	0.45
P-2430	458.00	8.0	130.0	0.00	Open	-51.60	0.08	0.03	0.33
P-2440	185.00	8.0	130.0	0.00	Open	43.57	0.06	0.01	0.28
P-2450	412.00	8.0	130.0	0.00	Open	-95.17	0.23	0.10	0.61
P-2460	726.00	8.0	130.0	0.00	Open	-65.57	0.12	0.09	0.42
P-2470	702.00	6.0	130.0	0.00	Open	-4.92	0.00	0.00	0.06
P-2490	292.00	8.0	130.0	0.00	Open	-40.65	0.05	0.01	0.26
P-2500	542.00	6.0	130.0	0.00	Open	12.14	0.02	0.01	0.14
P-2510	368.00	6.0	130.0	0.00	Open	22.42	0.07	0.02	0.25
P-2520	209.00	8.0	130.0	0.00	Open	70.33	0.13	0.03	0.45
P-2530	657.00	8.0	130.0	0.00	Open	-47.92	0.07	0.04	0.31
P-2540	104.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2550	481.00	8.0	130.0	0.00	Open	-27.91	0.02	0.01	0.18
P-2560	569.00	8.0	130.0	0.00	Open	-33.59	0.03	0.02	0.21
P-2570	261.00	8.0	130.0	0.00	Open	-41.50	0.05	0.01	0.26
P-2580	875.00	6.0	130.0	0.00	Open	-8.21	0.01	0.01	0.09
P-2590	550.00	8.0	130.0	0.00	Open	11.69	0.00	0.00	0.07
P-2600	480.00	6.0	130.0	0.00	Open	9.39	0.01	0.01	0.11
P-2610	259.00	8.0	130.0	0.00	Open	-2.30	0.00	0.00	0.01
P-2620	526.00	6.0	130.0	0.00	Open	-6.55	0.01	0.00	0.07
P-2630	560.00	6.0	130.0	0.00	Open	13.45	0.03	0.01	0.15
P-2640	500.00	8.0	130.0	0.00	Open	-24.25	0.02	0.01	0.15
P-2650	297.00	8.0	130.0	0.00	Open	11.42	0.00	0.00	0.07
P-2660	340.00	8.0	130.0	0.00	Open	24.86	0.02	0.01	0.16
P-2670	299.00	6.0	130.0	0.00	Open	-12.83	0.02	0.01	0.15
P-2680	386.00	6.0	130.0	0.00	Open	-24.83	0.08	0.03	0.28
P-2690	211.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2700	703.00	8.0	130.0	0.00	Open	59.62	0.10	0.07	0.38
P-2730	303.00	8.0	130.0	0.00	Open	8.84	0.00	0.00	0.06
P-3000	1,498.00	12.0	130.0	0.00	Open	-636.29	1.10	1.64	1.81
P-3010	1,472.00	12.0	130.0	0.00	Open	-471.91	0.63	0.93	1.34
P-3020	373.00	12.0	130.0	0.00	Open	1,073.56	2.89	1.08	3.05
P-3025	126.00	12.0	130.0	0.00	Open	1,073.56	2.89	0.36	3.05
P-3030	248.00	8.0	130.0	0.00	Open	437.28	3.95	0.98	2.79
P-3040	292.00	8.0	130.0	0.00	Open	246.01	1.36	0.40	1.57
P-3050	303.00	8.0	130.0	0.00	Open	-156.87	0.59	0.18	1.00
P-3060	368.00	8.0	130.0	0.00	Open	-62.78	0.11	0.04	0.40
P-3070	271.00	8.0	130.0	0.00	Open	-156.87	0.59	0.16	1.00
P-3080	257.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3090	192.00	8.0	130.0	0.00	Open	-92.87	0.22	0.04	0.59
P-3095	467.00	8.0	130.0	0.00	Open	-62.78	0.11	0.05	0.40
P-3100	286.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3110	207.00	8.0	130.0	0.00	Open	-92.87	0.22	0.05	0.59
P-3120	536.00	12.0	130.0	0.00	Open	-200.18	0.13	0.07	0.57
P-3130	645.00	12.0	130.0	0.00	Open	107.31	0.04	0.03	0.30
P-3140	305.00	8.0	130.0	0.00	Open	33.69	0.03	0.01	0.22
P-3150	158.00	8.0	130.0	0.00	Open	53.94	0.08	0.01	0.34
P-3160	673.00	8.0	130.0	0.00	Open	433.49	3.88	2.61	2.77
P-3170	234.00	8.0	130.0	0.00	Open	3.62	0.00	0.00	0.02
P-3180	685.00	8.0	130.0	0.00	Open	32.00	0.03	0.02	0.20
P-3190	812.00	8.0	130.0	0.00	Open	-8.82	0.00	0.00	0.06

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-3200	249.00	8.0	130.0	0.00	Open	23.18	0.02	0.00	0.15
P-3210	188.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3220	747.00	8.0	130.0	0.00	Open	-8.82	0.00	0.00	0.06
P-3240	141.00	8.0	130.0	0.00	Open	-62.07	0.11	0.01	0.40
P-3250	161.00	8.0	130.0	0.00	Open	-32.61	0.03	0.01	0.21
P-3260	440.00	8.0	130.0	0.00	Open	-57.83	0.09	0.04	0.37
P-3270	290.00	8.0	130.0	0.00	Open	67.06	0.12	0.04	0.43
P-3290	293.00	8.0	130.0	0.00	Open	-25.83	0.02	0.01	0.16
P-3300	175.00	8.0	130.0	0.00	Open	109.04	0.30	0.05	0.70
P-3310	649.00	6.0	130.0	0.00	Open	41.98	0.21	0.14	0.48
P-3325	144.00	8.0	130.0	0.00	Open	105.94	0.29	0.04	0.68
P-3330	273.00	8.0	130.0	0.00	Open	198.07	0.91	0.25	1.26
P-3340	328.00	8.0	130.0	0.00	Open	-2.64	0.00	0.00	0.02
P-3350	170.00	8.0	130.0	0.00	Open	52.00	0.08	0.01	0.33
P-3360	291.00	8.0	130.0	0.00	Open	11.83	0.00	0.00	0.08
P-3370	752.00	8.0	130.0	0.00	Open	31.83	0.03	0.02	0.20
P-3380	327.00	6.0	130.0	0.00	Open	-22.12	0.06	0.02	0.25
P-3390	305.00	8.0	130.0	0.00	Open	21.14	0.01	0.00	0.13
P-3400	412.00	8.0	130.0	0.00	Open	-6.26	0.00	0.00	0.04
P-3410	369.00	6.0	130.0	0.00	Open	3.34	0.00	0.00	0.04
P-3420	290.00	8.0	130.0	0.00	Open	-156.87	0.59	0.17	1.00
P-3430	175.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3440	288.00	8.0	130.0	0.00	Open	-30.09	0.03	0.01	0.19
P-3450	279.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3460	634.00	8.0	130.0	0.00	Open	-69.29	0.13	0.08	0.44
P-3470	466.00	12.0	130.0	0.00	Open	-562.67	0.87	0.41	1.60
P-3480	211.00	8.0	130.0	0.00	Open	27.00	0.02	0.00	0.17
P-3490	283.00	8.0	130.0	0.00	Open	18.00	0.01	0.00	0.11
P-3500	292.00	6.0	130.0	0.00	Open	-9.32	0.01	0.00	0.11
P-3510	490.00	6.0	130.0	0.00	Open	20.94	0.06	0.03	0.24
P-3530	702.00	8.0	130.0	0.00	Open	89.03	0.21	0.15	0.57
P-3540	576.00	6.0	130.0	0.00	Open	6.78	0.01	0.00	0.08
P-3550	705.00	8.0	130.0	0.00	Open	67.06	0.12	0.09	0.43
P-3620	958.00	8.0	130.0	0.00	Open	-31.06	0.03	0.03	0.20
P-5000	182.00	8.0	130.0	0.00	Open	24.10	0.02	0.00	0.15

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Reservoir Report

Label	Elevation (ft)	Inflow (gpm)	Calculated Hydraulic Grade (ft)	Outflow (gpm)
R-1	275.00	-1,749.69	275.00	1,749.69
R-2	275.00	-1,507.05	275.00	1,507.05
R-3	275.00	0.00	275.00	0.00
R-4	275.00	0.00	275.00	0.00

Scenario: Maximum Day, 60 psig at Hydro Tank
Steady State Analysis
Valve Report

Label	Elevation (ft)	Diameter (in)	Control Status	Discharge (gpm)	Calculated Pressure Setting (psi)
PRV-1	65.00	16.0	Throttling	1,749.69	58.00
PRV-2	58.00	16.0	Throttling	1,507.05	62.00
PRV-3	81.00	12.0	Inactive	0.00	0.00
PRV-4	41.70	12.0	Inactive	0.00	0.00

PEAK HOUR DEMAND

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1	45.00	Demand	0.00	Fixed	0.00	165.36	52.07
J-2	38.00	Demand	0.00	Fixed	0.00	164.40	54.69
J-3	37.00	Demand	0.00	Fixed	0.00	164.36	55.10
J-5	43.00	Demand	0.00	Fixed	0.00	164.45	52.54
J-6	43.00	Demand	0.00	Fixed	0.00	165.12	52.83
J-7	43.00	Demand	6.00	Fixed	21.00	164.43	52.54
J-8	47.00	Demand	6.00	Fixed	21.00	164.39	50.79
J-9	47.00	Demand	4.40	Fixed	15.40	164.39	50.79
J-10	63.34	Demand	0.00	Fixed	0.00	169.65	45.99
J-11	45.20	Demand	0.00	Fixed	0.00	164.39	51.57
J-12	44.00	Demand	0.00	Fixed	0.00	164.39	52.09
J-13	46.00	Demand	5.20	Fixed	18.20	164.39	51.22
J-14	45.00	Demand	5.20	Fixed	18.20	164.39	51.66
J-15	40.00	Demand	0.00	Fixed	0.00	164.40	53.82
J-16	40.00	Demand	5.60	Fixed	19.60	164.40	53.82
J-17	40.00	Demand	7.20	Fixed	25.20	164.41	53.83
J-18	37.00	Demand	0.00	Fixed	0.00	164.23	55.05
J-19	38.00	Demand	23.44	Fixed	82.04	164.11	54.56
J-20	50.91	Demand	17.19	Fixed	60.17	166.07	49.82
J-21	37.00	Demand	0.00	Fixed	0.00	164.08	54.98
J-22	37.00	Demand	0.00	Fixed	0.00	164.05	54.97
J-23	40.00	Demand	25.00	Fixed	87.50	164.04	53.67
J-24	37.00	Demand	0.00	Fixed	0.00	164.05	54.97
J-25	37.00	Demand	0.00	Fixed	0.00	164.05	54.97
J-26	37.00	Demand	0.00	Fixed	0.00	164.05	54.97
J-27	39.00	Demand	9.06	Fixed	31.71	164.04	54.10
J-28	39.00	Demand	0.00	Fixed	0.00	164.04	54.10
J-29	39.00	Demand	14.06	Fixed	49.21	164.04	54.10
J-30	66.90	Demand	0.00	Fixed	0.00	168.94	44.15
J-31	40.00	Demand	0.00	Fixed	0.00	164.07	53.68
J-32	40.00	Demand	0.00	Fixed	0.00	164.08	53.68
J-33	45.00	Demand	19.06	Fixed	66.71	164.10	51.53
J-34	40.00	Demand	0.00	Fixed	0.00	164.19	53.73
J-35	40.00	Demand	10.31	Fixed	36.08	164.08	53.68
J-36	40.00	Demand	0.00	Fixed	0.00	164.11	53.70
J-37	38.00	Demand	9.06	Fixed	31.71	164.14	54.57
J-39	43.00	Demand	15.63	Fixed	54.71	165.07	52.81
J-40	70.52	Demand	0.00	Fixed	0.00	168.89	42.56
J-40A	70.00	Demand	0.00	Fixed	0.00	168.87	42.78
J-41	47.00	Demand	5.00	Fixed	17.50	165.06	51.08
J-42	43.00	Demand	0.00	Fixed	0.00	165.19	52.87
J-43	50.00	Demand	5.00	Fixed	17.50	165.29	49.88
J-44	47.00	Demand	10.00	Fixed	35.00	165.25	51.16
J-45	50.00	Demand	0.00	Fixed	0.00	165.19	49.84
J-46	50.00	Demand	10.63	Fixed	37.21	165.14	49.81
J-47	49.00	Demand	0.00	Fixed	0.00	165.10	50.23
J-48	49.00	Demand	13.75	Fixed	48.13	165.06	50.21
J-50	70.72	Demand	9.00	Fixed	31.50	169.20	42.61
J-52	47.00	Demand	17.50	Fixed	61.25	165.05	51.07
J-55	56.31	Demand	0.00	Fixed	0.00	168.98	48.75
J-60	78.00	Demand	0.00	Fixed	0.00	168.97	39.36
J-65	79.06	Demand	4.00	Fixed	14.00	169.14	38.97

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-70	72.52	Demand	0.00	Fixed	0.00	169.04	41.76
J-75	74.14	Demand	4.00	Fixed	14.00	169.48	41.25
J-80	74.00	Demand	0.00	Fixed	0.00	168.98	41.09
J-90	72.14	Demand	19.20	Fixed	67.20	168.89	41.86
J-100	71.87	Demand	0.00	Fixed	0.00	168.88	41.97
J-110	72.60	Demand	21.60	Fixed	75.60	168.86	41.65
J-120	74.07	Demand	0.00	Fixed	0.00	168.98	41.06
J-130	75.25	Demand	15.60	Fixed	54.60	168.98	40.55
J-130A	74.00	Demand	0.00	Fixed	0.00	168.98	41.09
J-140	75.56	Demand	0.00	Fixed	0.00	168.98	40.42
J-150	75.14	Demand	0.00	Fixed	0.00	169.01	40.61
J-160	76.01	Demand	0.00	Fixed	0.00	169.01	40.24
J-170	74.37	Demand	0.00	Fixed	0.00	169.03	40.96
J-180	68.38	Demand	0.00	Fixed	0.00	169.81	43.88
J-190	69.42	Demand	0.00	Fixed	0.00	169.74	43.40
J-200	70.84	Demand	14.40	Fixed	50.40	170.26	43.02
J-210	70.31	Demand	0.00	Fixed	0.00	170.12	43.18
J-220	72.57	Demand	0.00	Fixed	0.00	169.79	42.06
J-230	72.90	Demand	0.00	Fixed	0.00	169.56	41.82
J-240	74.23	Demand	16.80	Fixed	58.80	169.56	41.24
J-250	71.50	Demand	16.00	Fixed	56.00	169.57	42.43
J-260	70.38	Demand	0.00	Fixed	0.00	169.57	42.91
J-270	72.61	Demand	0.00	Fixed	0.00	169.56	41.95
J-280	74.73	Demand	9.60	Fixed	33.60	169.11	40.83
J-290	75.43	Demand	0.00	Fixed	0.00	169.11	40.53
J-296	49.00	Demand	0.00	Fixed	0.00	165.05	50.21
J-298	49.00	Demand	0.00	Fixed	0.00	165.05	50.21
J-300	64.72	Demand	0.00	Fixed	0.00	167.66	44.54
J-302	43.00	Demand	0.00	Fixed	0.00	165.12	52.83
J-306	43.00	Demand	0.00	Fixed	0.00	164.51	52.57
J-310	64.12	Demand	8.80	Fixed	30.80	167.65	44.79
J-320	68.92	Demand	4.00	Fixed	14.00	168.46	43.07
J-330	67.86	Demand	12.00	Fixed	42.00	167.86	43.27
J-335	66.84	Demand	5.60	Fixed	19.60	167.83	43.69
J-340	65.40	Demand	0.00	Fixed	0.00	167.82	44.31
J-344	65.00	Demand	0.00	Fixed	0.00	171.28	45.98
J-345	58.00	Demand	0.00	Fixed	0.00	180.46	52.98
J-346	81.00	Demand	0.00	Fixed	0.00	275.00	83.93
J-347	80.00	Demand	0.00	Fixed	0.00	168.71	38.38
J-348	80.00	Demand	0.00	Fixed	0.00	168.71	38.38
J-349	48.00	Demand	2.49	Fixed	8.72	170.62	53.05
J-350	63.00	Demand	3.60	Fixed	12.60	167.66	45.28
J-351	49.00	Demand	2.49	Fixed	8.72	170.61	52.61
J-352	52.00	Demand	2.49	Fixed	8.72	171.11	51.53
J-353	53.20	Demand	2.49	Fixed	8.72	170.84	50.90
J-354	49.75	Demand	2.49	Fixed	8.72	170.75	52.35
J-355	61.46	Demand	0.00	Fixed	0.00	167.66	45.95
J-356	49.50	Demand	2.49	Fixed	8.72	170.77	52.47
J-357	48.50	Demand	2.49	Fixed	8.72	170.69	52.86
J-358	53.50	Demand	2.49	Fixed	8.72	171.18	50.91
J-359	52.00	Demand	2.49	Fixed	8.72	170.94	51.46
J-360	61.63	Demand	11.20	Fixed	39.20	166.68	45.45

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-360A	61.00	Demand	0.00	Fixed	0.00	166.68	45.72
J-361	55.00	Demand	2.49	Fixed	8.72	170.94	50.16
J-362	54.00	Demand	2.49	Fixed	8.72	170.94	50.59
J-363	54.50	Demand	2.49	Fixed	8.72	170.96	50.39
J-364	56.00	Demand	2.49	Fixed	8.72	170.97	49.74
J-365	58.65	Demand	11.50	Fixed	40.25	166.67	46.74
J-365A	58.00	Demand	0.00	Fixed	0.00	166.35	46.88
J-366	56.00	Demand	2.49	Fixed	8.72	171.02	49.76
J-367	57.00	Demand	2.49	Fixed	8.72	170.98	49.31
J-368	53.00	Demand	2.49	Fixed	8.72	170.94	51.03
J-369	52.50	Demand	2.49	Fixed	8.72	170.84	51.20
J-370	66.22	Demand	9.70	Fixed	33.95	167.70	43.91
J-371	50.00	Demand	2.49	Fixed	8.72	170.77	52.25
J-372	48.50	Demand	2.49	Fixed	8.72	170.62	52.84
J-373	51.50	Demand	2.49	Fixed	8.72	170.84	51.63
J-374	50.50	Demand	2.49	Fixed	8.72	170.75	52.03
J-375	50.00	Demand	2.49	Fixed	8.72	170.69	52.22
J-376	49.50	Demand	2.49	Fixed	8.72	170.69	52.43
J-377	48.70	Demand	2.49	Fixed	8.72	170.69	52.78
J-378	49.00	Demand	2.49	Fixed	8.72	170.70	52.65
J-379	48.70	Demand	2.49	Fixed	8.72	170.69	52.78
J-380	66.43	Demand	0.00	Fixed	0.00	168.67	44.23
J-381	41.70	Demand	8.00	Fixed	28.00	165.33	53.49
J-382	38.30	Demand	8.00	Fixed	28.00	165.31	54.95
J-383	33.00	Demand	8.00	Fixed	28.00	165.31	57.24
J-384	41.70	Demand	0.00	Fixed	0.00	275.00	100.94
J-385	65.00	Demand	3.20	Fixed	11.20	168.46	44.76
J-386	66.00	Demand	3.60	Fixed	12.60	168.60	44.39
J-387	66.00	Demand	5.20	Fixed	18.20	168.78	44.47
J-388	74.10	Demand	0.00	Fixed	0.00	170.73	41.81
J-389	74.20	Demand	2.00	Fixed	7.00	169.64	41.29
J-390	64.79	Demand	5.20	Fixed	18.20	167.67	44.51
J-392	64.00	Demand	1.20	Fixed	4.20	168.13	45.05
J-394	66.00	Demand	2.40	Fixed	8.40	168.70	44.43
J-395	67.20	Demand	1.20	Fixed	4.20	168.72	43.92
J-396	73.00	Demand	22.99	Fixed	80.46	168.70	41.41
J-397	75.70	Demand	3.20	Fixed	11.20	169.68	40.66
J-398	77.00	Demand	0.00	Fixed	0.00	169.52	40.03
J-399	77.00	Demand	0.00	Fixed	0.00	169.02	39.81
J-400	63.46	Demand	3.20	Fixed	11.20	167.66	45.08
J-401	77.00	Demand	2.40	Fixed	8.40	169.60	40.06
J-402	75.00	Demand	4.00	Fixed	14.00	170.01	41.11
J-403	67.00	Demand	1.60	Fixed	5.60	168.75	44.02
J-404	74.60	Demand	3.13	Fixed	10.95	168.69	40.71
J-405	76.20	Demand	3.29	Fixed	11.52	168.70	40.02
J-406	41.70	Demand	0.00	Fixed	0.00	275.00	100.94
J-407	81.00	Demand	0.00	Fixed	0.00	168.71	37.95
J-408	73.00	Demand	3.20	Fixed	11.20	169.89	41.92
J-409	73.00	Demand	2.00	Fixed	7.00	170.59	42.22
J-410	63.00	Demand	4.40	Fixed	15.40	167.66	45.28
J-411	73.00	Demand	2.80	Fixed	9.80	169.93	41.94
J-412	71.00	Demand	0.00	Fixed	0.00	169.82	42.75

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-413	76.00	Demand	6.08	Fixed	21.28	168.72	40.12
J-414	67.00	Demand	2.40	Fixed	8.40	169.19	44.21
J-415	73.00	Demand	3.60	Fixed	12.60	168.73	41.42
J-416	68.00	Demand	4.00	Fixed	14.00	168.79	43.61
J-417	67.00	Demand	1.60	Fixed	5.60	168.83	44.06
J-418	67.00	Demand	1.60	Fixed	5.60	168.71	44.01
J-419	67.00	Demand	3.20	Fixed	11.20	168.68	43.99
J-420	63.00	Demand	0.00	Fixed	0.00	167.41	45.17
J-421	66.00	Demand	2.40	Fixed	8.40	168.72	44.44
J-422	64.00	Demand	3.20	Fixed	11.20	168.60	45.26
J-423	65.00	Demand	2.80	Fixed	9.80	168.60	44.82
J-424	64.00	Demand	1.60	Fixed	5.60	168.36	45.15
J-425	73.00	Demand	3.65	Fixed	12.77	168.69	41.40
J-426	72.00	Demand	0.00	Fixed	0.00	168.69	41.83
J-427	72.00	Demand	6.82	Fixed	23.87	168.68	41.83
J-428	72.00	Demand	2.53	Fixed	8.85	168.68	41.83
J-429	74.00	Demand	2.53	Fixed	8.85	168.68	40.97
J-430	60.90	Demand	7.60	Fixed	26.60	166.47	45.68
J-431	75.00	Demand	0.00	Fixed	0.00	168.69	40.54
J-433	76.00	Demand	0.00	Fixed	0.00	168.70	40.11
J-434	76.00	Demand	0.00	Fixed	0.00	168.71	40.11
J-435	61.60	Demand	7.20	Fixed	25.20	166.63	45.44
J-435A	61.00	Demand	0.00	Fixed	0.00	166.57	45.68
J-436	74.00	Demand	14.37	Fixed	50.29	168.68	40.96
J-437	74.00	Demand	3.65	Fixed	12.77	168.68	40.97
J-438	76.00	Demand	0.00	Fixed	0.00	168.71	40.11
J-439	64.00	Demand	0.00	Fixed	0.00	168.00	44.99
J-440	60.59	Demand	9.60	Fixed	33.60	166.73	45.92
J-441	56.00	Demand	0.00	Fixed	0.00	166.86	47.96
J-442	54.00	Demand	0.00	Fixed	0.00	166.56	48.70
J-450	59.29	Demand	0.00	Fixed	0.00	166.46	46.37
J-450A	59.00	Demand	0.00	Fixed	0.00	166.46	46.49
J-470	58.00	Demand	3.20	Fixed	11.20	166.46	46.92
J-475	57.16	Demand	7.50	Fixed	26.25	166.45	47.29
J-480	59.15	Demand	0.00	Fixed	0.00	166.46	46.43
J-485	58.66	Demand	4.80	Fixed	16.80	166.45	46.64
J-490	59.97	Demand	0.00	Fixed	0.00	166.69	46.17
J-500	63.34	Demand	5.60	Fixed	19.60	168.17	45.35
J-510	64.22	Demand	0.00	Fixed	0.00	168.15	44.96
J-520	63.00	Demand	0.00	Fixed	0.00	168.17	45.50
J-520A	63.00	Demand	0.00	Fixed	0.00	168.17	45.50
J-530	61.57	Demand	12.40	Fixed	43.40	168.19	46.13
J-540	64.71	Demand	0.00	Fixed	0.00	168.29	44.82
J-550	67.29	Demand	0.00	Fixed	0.00	168.29	43.70
J-560	66.05	Demand	16.40	Fixed	57.40	168.29	44.23
J-570	66.00	Demand	0.00	Fixed	0.00	168.42	44.31
J-580	64.21	Demand	13.20	Fixed	46.20	168.22	45.00
J-590	63.12	Demand	0.00	Fixed	0.00	168.23	45.48
J-600	69.08	Demand	0.00	Fixed	0.00	168.12	42.85
J-610	67.88	Demand	5.20	Fixed	18.20	168.12	43.37
J-620	55.00	Demand	0.00	Fixed	0.00	165.98	48.01
J-630	49.99	Demand	0.00	Fixed	0.00	165.59	50.02

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-635	48.00	Demand	0.00	Fixed	0.00	165.47	50.82
J-640	55.00	Demand	0.00	Fixed	0.00	165.97	48.01
J-650	56.23	Demand	0.00	Fixed	0.00	165.97	47.48
J-660	52.32	Demand	0.00	Fixed	0.00	165.95	49.16
J-670	53.48	Demand	0.00	Fixed	0.00	165.95	48.66
J-680	58.46	Demand	19.60	Fixed	68.60	166.35	46.68
J-700	58.75	Demand	0.00	Fixed	0.00	166.41	46.58
J-710	57.28	Demand	0.00	Fixed	0.00	166.41	47.21
J-720	54.01	Demand	0.00	Fixed	0.00	166.35	48.60
J-730	55.06	Demand	0.00	Fixed	0.00	166.27	48.12
J-740	57.00	Demand	0.00	Fixed	0.00	166.34	47.30
J-750	55.01	Demand	0.00	Fixed	0.00	166.35	48.17
J-750A	55.00	Demand	0.00	Fixed	0.00	166.35	48.17
J-760	51.15	Demand	19.20	Fixed	67.20	166.14	49.75
J-770	51.19	Demand	16.80	Fixed	58.80	165.94	49.65
J-780	47.22	Demand	0.00	Fixed	0.00	165.74	51.28
J-785	50.53	Demand	12.00	Fixed	42.00	165.67	49.82
J-790	49.86	Demand	0.00	Fixed	0.00	165.67	50.11
J-800	48.00	Demand	0.00	Fixed	0.00	165.63	50.89
J-810	48.24	Demand	12.40	Fixed	43.40	165.63	50.79
J-820	48.27	Demand	0.00	Fixed	0.00	165.60	50.76
J-830	49.28	Demand	0.00	Fixed	0.00	165.60	50.33
J-840	50.00	Demand	0.00	Fixed	0.00	165.48	49.96
J-845	48.00	Demand	0.00	Fixed	0.00	165.48	50.83
J-850	58.38	Demand	0.00	Fixed	0.00	165.43	46.31
J-860	53.78	Demand	20.80	Fixed	72.80	165.34	48.27
J-870	53.89	Demand	1.60	Fixed	5.60	165.41	48.25
J-880	51.19	Demand	2.40	Fixed	8.40	165.54	49.47
J-890	51.00	Demand	0.00	Fixed	0.00	165.61	49.59
J-900	49.92	Demand	0.00	Fixed	0.00	165.54	50.02
J-910	51.66	Demand	4.80	Fixed	16.80	165.50	49.25
J-920	52.29	Demand	0.00	Fixed	0.00	165.50	48.98
J-930	55.00	Demand	8.40	Fixed	29.40	165.35	47.75
J-935	55.00	Demand	4.00	Fixed	14.00	165.37	47.75
J-940	51.83	Demand	0.00	Fixed	0.00	165.32	49.10
J-945	55.86	Demand	7.60	Fixed	26.60	165.35	47.37
J-950	48.48	Demand	5.60	Fixed	19.60	165.37	50.57
J-960	53.74	Demand	11.20	Fixed	39.20	165.32	48.28
J-970	48.18	Demand	0.00	Fixed	0.00	165.37	50.70
J-980	70.85	Demand	0.00	Fixed	0.00	170.79	43.24
J-990	64.17	Demand	0.00	Fixed	0.00	169.13	45.41
J-1000	66.35	Demand	94.00	Fixed	329.00	167.67	43.84
J-1010	94.62	Demand	0.00	Fixed	0.00	168.90	32.14
J-1020	70.20	Demand	0.00	Fixed	0.00	168.92	42.71
J-1030	70.00	Demand	39.60	Fixed	138.60	168.91	42.79
J-1070	70.00	Demand	0.00	Fixed	0.00	168.94	42.81
J-1080	72.75	Demand	0.00	Fixed	0.00	168.92	41.61
J-1120	65.00	Demand	0.00	Fixed	0.00	171.11	45.91
J-1330	65.10	Demand	0.00	Fixed	0.00	169.02	44.96
J-1335	68.70	Demand	0.00	Fixed	0.00	168.95	43.37
J-1345	61.40	Demand	0.00	Fixed	0.00	169.18	46.63
J-1370	72.70	Demand	22.80	Fixed	79.80	168.94	41.64

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1380	72.80	Demand	0.00	Fixed	0.00	168.94	41.59
J-1385	73.00	Demand	4.40	Fixed	15.40	168.94	41.51
J-1390	74.00	Demand	0.00	Fixed	0.00	168.94	41.07
J-1395	74.50	Demand	5.60	Fixed	19.60	168.94	40.86
J-1405	72.60	Demand	0.00	Fixed	0.00	169.11	41.76
J-1410	75.40	Demand	0.00	Fixed	0.00	168.94	40.47
J-1415	73.90	Demand	0.00	Fixed	0.00	168.94	41.12
J-1420	72.70	Demand	4.00	Fixed	14.00	168.93	41.63
J-1425	72.10	Demand	4.40	Fixed	15.40	168.93	41.89
J-1430	72.00	Demand	6.40	Fixed	22.40	168.93	41.94
J-1435	72.20	Demand	0.00	Fixed	0.00	168.93	41.85
J-1440	72.20	Demand	0.00	Fixed	0.00	168.93	41.85
J-1445	72.20	Demand	0.00	Fixed	0.00	168.93	41.85
J-1450	72.80	Demand	0.00	Fixed	0.00	168.97	41.61
J-1455	72.90	Demand	0.00	Fixed	0.00	168.94	41.55
J-1460	72.80	Demand	10.80	Fixed	37.80	168.93	41.59
J-1465	71.20	Demand	6.40	Fixed	22.40	168.94	42.29
J-1475	70.40	Demand	8.80	Fixed	30.80	168.99	42.66
J-1490	57.90	Demand	0.00	Fixed	0.00	169.65	48.35
J-1495	63.30	Demand	2.40	Fixed	8.40	170.79	46.51
J-1500	65.80	Demand	4.80	Fixed	16.80	169.63	44.92
J-1505	59.40	Demand	0.00	Fixed	0.00	169.53	47.65
J-1510	67.20	Demand	4.40	Fixed	15.40	169.43	44.23
J-1515	67.20	Demand	0.00	Fixed	0.00	169.37	44.20
J-1520	67.30	Demand	0.00	Fixed	0.00	169.30	44.13
J-1525	68.70	Demand	4.40	Fixed	15.40	169.24	43.50
J-1530	64.40	Demand	4.80	Fixed	16.80	170.40	45.86
J-1535	64.20	Demand	0.00	Fixed	0.00	170.40	45.95
J-2000	79.46	Demand	0.00	Fixed	0.00	168.39	38.48
J-2005	72.85	Demand	14.90	Fixed	52.15	168.82	41.52
J-2010	80.79	Demand	19.60	Fixed	68.60	168.31	37.87
J-2020	82.53	Demand	8.00	Fixed	28.00	168.32	37.12
J-2030	83.82	Demand	5.20	Fixed	18.20	168.34	36.57
J-2040	82.91	Demand	4.40	Fixed	15.40	168.41	36.99
J-2050	82.01	Demand	0.00	Fixed	0.00	168.41	37.38
J-2060	81.43	Demand	3.60	Fixed	12.60	168.59	37.71
J-2070	81.68	Demand	0.00	Fixed	0.00	168.32	37.48
J-2080	82.32	Demand	0.00	Fixed	0.00	168.32	37.21
J-2090	80.95	Demand	0.00	Fixed	0.00	168.31	37.80
J-2100	84.12	Demand	4.80	Fixed	16.80	168.31	36.43
J-2110	79.47	Demand	8.00	Fixed	28.00	167.00	37.87
J-2120	82.68	Demand	7.20	Fixed	25.20	165.66	35.90
J-2130	84.45	Demand	3.20	Fixed	11.20	165.65	35.13
J-2140	82.29	Demand	4.40	Fixed	15.40	165.43	35.97
J-2150	83.99	Demand	0.00	Fixed	0.00	165.43	35.23
J-2160	82.01	Demand	7.20	Fixed	25.20	165.28	36.03
J-2170	83.80	Demand	0.00	Fixed	0.00	165.28	35.25
J-2180	72.01	Demand	11.16	Fixed	39.06	165.14	40.29
J-2190	77.29	Demand	0.00	Fixed	0.00	168.74	39.57
J-2200	78.51	Demand	0.00	Fixed	0.00	166.75	38.18
J-2210	80.07	Demand	0.00	Fixed	0.00	164.51	36.53
J-2220	81.56	Demand	0.00	Fixed	0.00	163.95	35.64

Scenario: Peak Hour, 50 psig at Hydro Tank
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Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-2230	83.62	Demand	0.00	Fixed	0.00	163.54	34.58
J-2240	87.60	Demand	0.00	Fixed	0.00	163.40	32.79
J-2250	86.42	Demand	7.60	Fixed	26.60	163.31	33.27
J-2260	78.00	Demand	7.20	Fixed	25.20	164.78	37.55
J-2270	77.33	Demand	0.00	Fixed	0.00	164.78	37.84
J-2280	77.87	Demand	0.00	Fixed	0.00	164.59	37.52
J-2290	79.32	Demand	0.00	Fixed	0.00	164.50	36.85
J-2300	78.24	Demand	0.00	Fixed	0.00	164.45	37.30
J-2310	78.74	Demand	7.20	Fixed	25.20	164.30	37.02
J-2320	78.00	Demand	0.00	Fixed	0.00	164.30	37.34
J-2330	80.36	Demand	0.00	Fixed	0.00	164.23	36.29
J-2340	79.84	Demand	12.80	Fixed	44.80	164.27	36.53
J-2350	81.49	Demand	9.20	Fixed	32.20	164.01	35.70
J-2360	81.99	Demand	0.00	Fixed	0.00	163.92	35.45
J-2370	82.95	Demand	14.80	Fixed	51.80	163.64	34.91
J-2380	79.53	Demand	10.00	Fixed	35.00	163.40	36.29
J-2400	86.00	Demand	7.60	Fixed	26.60	163.40	33.49
J-2410	87.00	Demand	9.60	Fixed	33.60	163.36	33.04
J-2420	83.42	Demand	0.00	Fixed	0.00	163.46	34.63
J-2430	86.38	Demand	10.00	Fixed	35.00	163.34	33.30
J-2440	86.80	Demand	0.00	Fixed	0.00	163.34	33.12
J-2450	87.00	Demand	10.00	Fixed	35.00	163.31	33.02
J-2460	89.31	Demand	10.80	Fixed	37.80	163.27	32.00
J-2470	90.96	Demand	8.80	Fixed	30.80	163.25	31.28
J-2480	90.00	Demand	0.00	Fixed	0.00	163.26	31.70
J-2490	90.00	Demand	10.00	Fixed	35.00	163.26	31.70
J-2500	90.45	Demand	10.00	Fixed	35.00	163.25	31.50
J-2510	88.61	Demand	0.00	Fixed	0.00	163.29	32.31
J-2520	88.42	Demand	0.00	Fixed	0.00	163.29	32.39
J-2530	87.41	Demand	6.00	Fixed	21.00	163.31	32.84
J-2540	87.15	Demand	0.00	Fixed	0.00	163.31	32.95
J-2560	83.29	Demand	0.00	Fixed	0.00	163.36	34.64
J-3000	58.00	Demand	0.00	Fixed	0.00	180.41	52.96
J-3010	56.98	Demand	0.00	Fixed	0.00	170.18	48.98
J-3030	58.28	Demand	0.00	Fixed	0.00	175.59	50.75
J-3040	62.88	Demand	0.00	Fixed	0.00	170.16	46.42
J-3050	59.32	Demand	17.20	Fixed	60.20	172.24	48.86
J-3060	61.77	Demand	0.00	Fixed	0.00	171.12	47.31
J-3080	59.48	Demand	0.00	Fixed	0.00	171.12	48.30
J-3090	59.34	Demand	12.40	Fixed	43.40	170.61	48.14
J-3095	58.72	Demand	0.00	Fixed	0.00	170.48	48.35
J-3100	58.88	Demand	0.00	Fixed	0.00	170.31	48.21
J-3110	61.00	Demand	0.00	Fixed	0.00	170.16	47.23
J-3120	60.39	Demand	0.00	Fixed	0.00	170.00	47.42
J-3130	48.01	Demand	10.00	Fixed	35.00	170.33	52.92
J-3140	50.20	Demand	0.00	Fixed	0.00	170.46	52.03
J-3150	51.44	Demand	0.00	Fixed	0.00	170.23	51.39
J-3160	53.00	Demand	0.00	Fixed	0.00	170.29	50.74
J-3170	50.11	Demand	0.00	Fixed	0.00	170.22	51.97
J-3180	49.07	Demand	0.00	Fixed	0.00	170.21	52.41
J-3190	50.06	Demand	16.00	Fixed	56.00	170.21	51.99
J-3200	55.32	Demand	0.00	Fixed	0.00	170.30	49.74

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-3210	55.87	Demand	0.00	Fixed	0.00	170.37	49.54
J-3220	54.25	Demand	16.00	Fixed	56.00	170.42	50.26
J-3225	54.24	Demand	15.60	Fixed	54.60	170.57	50.33
J-3230	55.08	Demand	0.00	Fixed	0.00	171.05	50.18
J-3240	56.90	Demand	0.00	Fixed	0.00	170.76	49.26
J-3245	56.71	Demand	18.80	Fixed	65.80	170.46	49.22
J-3250	55.40	Demand	0.00	Fixed	0.00	170.39	49.75
J-3260	55.61	Demand	0.00	Fixed	0.00	170.88	49.87
J-3265	55.50	Demand	17.60	Fixed	61.60	170.42	49.72
J-3270	54.08	Demand	0.00	Fixed	0.00	171.89	50.97
J-3275	51.00	Demand	0.00	Fixed	0.00	170.61	51.75
J-3280	51.98	Demand	0.00	Fixed	0.00	170.29	51.19
J-3285	52.18	Demand	12.40	Fixed	43.40	170.30	51.10
J-3290	49.48	Demand	0.00	Fixed	0.00	170.32	52.28
J-3300	49.59	Demand	0.00	Fixed	0.00	170.41	52.27
J-3310	50.62	Demand	13.56	Fixed	47.46	170.30	51.78
J-3320	51.05	Demand	0.00	Fixed	0.00	170.41	51.64
J-3330	61.03	Demand	0.00	Fixed	0.00	171.67	47.87
J-3340	59.54	Demand	0.00	Fixed	0.00	171.67	48.51
J-3350	59.70	Demand	19.60	Fixed	68.60	170.34	47.87
J-3360	61.10	Demand	0.00	Fixed	0.00	170.34	47.26
J-3370	55.12	Demand	22.88	Fixed	80.08	168.94	49.25
J-3380	55.04	Demand	13.50	Fixed	47.25	168.93	49.27
J-3390	54.92	Demand	9.00	Fixed	31.50	168.93	49.33
J-3400	49.53	Demand	6.40	Fixed	22.40	170.34	52.27
J-3410	50.82	Demand	8.80	Fixed	30.80	170.30	51.69
J-3420	58.00	Demand	0.00	Fixed	0.00	179.19	52.43
J-5000	76.20	Demand	0.00	Fixed	0.00	168.71	40.03
J-5001	63.00	Demand	2.40	Fixed	8.40	168.54	45.66

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-1	1,577.00	12.0	130.0	0.00	Open	-393.66	0.45	0.71	1.12
P-2	458.00	8.0	130.0	0.00	Open	-309.66	2.08	0.95	1.98
P-3	496.00	8.0	130.0	0.00	Open	-53.83	0.08	0.04	0.34
P-4	717.00	8.0	130.0	0.00	Open	90.59	0.21	0.15	0.58
P-5	182.00	8.0	130.0	0.00	Open	-123.31	0.38	0.07	0.79
P-7	333.00	8.0	130.0	0.00	Open	214.53	1.06	0.35	1.37
P-8	134.00	8.0	130.0	0.00	Open	65.55	0.12	0.02	0.42
P-9	612.00	8.0	130.0	0.00	Open	44.55	0.06	0.04	0.28
P-10	485.00	10.0	130.0	0.00	Open	-414.97	1.21	0.59	1.70
P-11	257.00	8.0	130.0	0.00	Open	15.40	0.01	0.00	0.10
P-12	271.00	6.0	130.0	0.20	Open	8.15	0.01	0.00	0.09
P-13	280.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-14	381.00	8.0	130.0	0.00	Open	-8.15	0.00	0.00	0.05
P-15	468.00	10.0	130.0	0.00	Open	40.39	0.02	0.01	0.16
P-16	278.00	8.0	130.0	0.00	Open	10.05	0.00	0.00	0.06
P-17	325.00	8.0	130.0	0.00	Open	28.25	0.02	0.01	0.18
P-18	239.00	8.0	130.0	0.00	Open	-12.96	0.01	0.00	0.08
P-19	310.00	8.0	130.0	0.00	Open	-32.56	0.03	0.01	0.21
P-20	630.00	12.0	130.0	0.00	Open	-320.71	0.31	0.19	0.91
P-21	368.00	8.0	130.0	0.00	Open	-57.76	0.09	0.03	0.37
P-22	197.00	8.0	130.0	0.00	Open	15.29	0.01	0.00	0.10
P-23	248.00	8.0	130.0	0.00	Open	144.43	0.51	0.13	0.92
P-24	248.00	8.0	130.0	0.00	Open	144.43	0.51	0.13	0.92
P-25	289.00	8.0	130.0	0.00	Open	62.39	0.11	0.03	0.40
P-27	262.00	8.0	130.0	0.00	Open	62.39	0.11	0.03	0.40
P-29	202.00	8.0	130.0	0.00	Open	43.31	0.05	0.01	0.28
P-30	369.00	10.0	130.0	0.40	Open	-121.84	0.13	0.05	0.50
P-30A	217.00	10.0	130.0	0.00	Open	89.47	0.07	0.02	0.37
P-31	140.00	8.0	130.0	0.00	Open	-19.08	0.01	0.00	0.12
P-32	209.00	8.0	130.0	0.00	Open	-25.11	0.02	0.00	0.16
P-33	233.00	8.0	130.0	0.00	Open	24.36	0.02	0.00	0.16
P-34	221.00	8.0	130.0	0.00	Open	24.36	0.02	0.00	0.16
P-35	218.00	8.0	130.0	0.00	Open	-7.35	0.00	0.00	0.05
P-36	131.00	8.0	130.0	0.00	Open	-7.35	0.00	0.00	0.05
P-37	287.00	8.0	130.0	0.00	Open	-56.56	0.09	0.03	0.36
P-38	128.00	8.0	130.0	0.00	Open	-56.56	0.09	0.01	0.36
P-39	190.00	8.0	130.0	0.00	Open	-56.56	0.09	0.02	0.36
P-40	812.00	10.0	130.0	0.20	Open	229.66	0.41	0.33	0.94
P-41	244.00	8.0	130.0	0.00	Open	-123.27	0.38	0.09	0.79
P-42	161.00	8.0	130.0	0.00	Open	-240.54	1.30	0.21	1.54
P-43	353.00	8.0	130.0	0.00	Open	49.47	0.07	0.02	0.32
P-44	161.00	8.0	130.0	0.00	Open	85.55	0.19	0.03	0.55
P-45	141.00	8.0	130.0	0.00	Open	85.55	0.19	0.03	0.55
P-46	162.00	8.0	130.0	0.00	Open	117.26	0.34	0.06	0.75
P-47	189.00	8.0	130.0	0.00	Open	-0.63	0.00	0.00	0.00
P-48	187.00	8.0	130.0	0.00	Open	101.42	0.26	0.05	0.65
P-49	175.00	8.0	130.0	0.00	Open	46.71	0.06	0.01	0.30
P-50	1,311.00	12.0	130.0	0.20	Open	-106.32	0.04	0.05	0.30
P-51	274.00	8.0	130.0	0.00	Open	100.79	0.26	0.07	0.64
P-52	118.00	8.0	130.0	0.00	Open	270.66	1.62	0.19	1.73
P-53	275.00	10.0	130.0	0.00	Open	135.79	0.15	0.04	0.55

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-54	221.00	8.0	130.0	0.00	Open	100.79	0.26	0.06	0.64
P-55	281.00	8.0	130.0	0.00	Open	117.37	0.35	0.10	0.75
P-56	155.00	8.0	130.0	0.00	Open	117.37	0.35	0.05	0.75
P-57	227.00	8.0	130.0	0.00	Open	80.16	0.17	0.04	0.51
P-58	231.00	8.0	130.0	0.00	Open	80.16	0.17	0.04	0.51
P-59	190.00	8.0	130.0	0.00	Open	32.04	0.03	0.01	0.20
P-60	407.00	8.0	130.0	0.40	Open	-72.36	0.14	0.06	0.46
P-62	184.00	8.0	130.0	0.00	Open	29.21	0.03	0.00	0.19
P-70	394.00	8.0	130.0	0.00	Open	130.61	0.42	0.17	0.83
P-77	439.00	8.0	130.0	0.00	Open	-28.19	0.02	0.01	0.18
P-80	182.00	8.0	130.0	0.00	Open	108.50	0.30	0.05	0.69
P-90	315.00	8.0	130.0	0.00	Open	110.43	0.31	0.10	0.70
P-100	787.00	8.0	130.0	0.00	Open	-11.08	0.00	0.00	0.07
P-110	173.00	8.0	130.0	0.00	Open	-32.37	0.03	0.01	0.21
P-120	438.00	8.0	130.0	0.00	Open	-43.45	0.05	0.02	0.28
P-130	875.00	8.0	130.0	0.00	Open	32.15	0.03	0.03	0.21
P-139	122.00	10.0	130.0	0.00	Open	-256.27	0.49	0.06	1.05
P-150A	434.00	8.0	130.0	0.00	Open	1.82	0.00	0.00	0.01
P-150B	464.00	8.0	130.0	0.00	Open	1.93	0.00	0.00	0.01
P-150C	283.00	8.0	130.0	0.00	Open	-0.11	0.00	0.00	0.00
P-160	805.00	8.0	130.0	0.00	Open	1.82	0.00	0.00	0.01
P-170	81.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-180	331.00	8.0	130.0	0.00	Open	56.53	0.09	0.03	0.36
P-190	171.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-200	282.00	8.0	130.0	0.00	Open	-22.10	0.02	0.00	0.14
P-210	227.00	8.0	130.0	0.00	Open	56.53	0.09	0.02	0.36
P-220	518.00	12.0	130.0	0.00	Open	853.04	1.89	0.98	2.42
P-230	493.00	10.0	130.0	0.00	Open	-391.77	1.09	0.54	1.60
P-240	258.00	10.0	130.0	0.00	Open	-187.42	0.28	0.07	0.77
P-250	392.00	8.0	130.0	0.00	Open	204.35	0.96	0.38	1.30
P-270	152.00	8.0	130.0	0.00	Open	204.35	0.96	0.15	1.30
P-270A	100.00	8.0	130.0	0.00	Open	-509.93	5.25	0.52	3.25
P-280	270.00	8.0	130.0	0.00	Open	-106.78	0.29	0.08	0.68
P-290	327.00	8.0	130.0	0.00	Open	255.18	1.46	0.48	1.63
P-300	276.00	6.0	130.0	0.00	Open	6.63	0.01	0.00	0.08
P-310	264.00	8.0	130.0	0.00	Open	-192.55	0.86	0.23	1.23
P-320	644.00	6.0	130.0	0.00	Open	6.63	0.01	0.00	0.08
P-329	557.00	8.0	130.0	0.00	Open	-22.05	0.02	0.01	0.14
P-330	506.00	6.0	130.0	0.00	Open	62.63	0.44	0.22	0.71
P-340	236.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-350	149.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-360	931.00	8.0	130.0	0.00	Open	-140.38	0.48	0.45	0.90
P-362	861.00	8.0	130.0	0.00	Open	63.92	0.11	0.10	0.41
P-364	575.00	8.0	130.0	0.00	Open	213.90	1.05	0.60	1.37
P-370	141.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-380	558.00	8.0	130.0	0.00	Open	217.00	1.08	0.60	1.39
P-389	165.00	8.0	130.0	0.00	Open	-44.19	0.06	0.01	0.28
P-390	185.00	8.0	130.0	0.00	Open	319.14	2.20	0.41	2.04
P-400	419.00	6.0	130.0	0.00	Open	88.14	0.83	0.35	1.00
P-410	337.00	8.0	130.0	0.00	Open	61.41	0.10	0.04	0.39
P-420	269.00	6.0	130.0	0.00	Open	77.31	0.65	0.17	0.88

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-422	241.00	8.0	130.0	0.00	Open	29.21	0.03	0.01	0.19
P-423	248.00	8.0	130.0	0.00	Open	32.04	0.03	0.01	0.20
P-424	10.00	16.0	130.0	0.00	Open	2,819.10	4.25	0.04	4.50
P-425	10.00	16.0	130.0	0.00	Open	2,819.10	4.26	0.04	4.50
P-426	102.00	16.0	130.0	0.00	Open	1,669.13	1.61	0.16	2.66
P-427	10.00	16.0	130.0	0.00	Open	2,880.19	4.43	0.04	4.60
P-428	10.00	16.0	130.0	0.00	Open	2,880.20	4.43	0.04	4.60
P-429	10.00	16.0	130.0	0.00	Open	2,880.20	4.43	0.04	4.60
P-430	435.00	6.0	130.0	0.00	Open	7.37	0.01	0.00	0.08
P-432	190.00	12.0	130.0	0.00	Open	-0.00	0.00	0.00	0.00
P-434	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-435	20.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-436	606.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-437	161.00	8.0	130.0	5.00	Closed	0.00	0.00	0.00	0.00
P-438	399.00	8.0	130.0	0.00	Open	298.35	1.94	0.78	1.90
P-439	514.00	8.0	130.0	0.00	Open	206.94	0.99	0.51	1.32
P-440	131.00	8.0	130.0	0.00	Open	-56.68	0.09	0.01	0.36
P-441	359.00	6.0	130.0	0.00	Open	141.25	1.98	0.71	1.60
P-442	381.00	6.0	130.0	0.00	Open	61.71	0.43	0.16	0.70
P-443	618.00	6.0	130.0	0.00	Open	21.98	0.06	0.04	0.25
P-444	428.00	6.0	130.0	0.00	Open	13.27	0.02	0.01	0.15
P-445	577.00	6.0	130.0	0.00	Open	4.55	0.00	0.00	0.05
P-446	432.00	6.0	130.0	0.00	Open	-31.02	0.12	0.05	0.35
P-447	261.00	6.0	130.0	0.00	Open	26.85	0.09	0.02	0.30
P-448	416.00	6.0	130.0	0.00	Open	8.72	0.01	0.00	0.10
P-449	406.00	6.0	130.0	0.00	Open	9.42	0.01	0.01	0.11
P-450	298.00	8.0	130.0	0.00	Open	148.03	0.53	0.16	0.94
P-451	276.00	6.0	130.0	0.00	Open	0.71	0.00	0.00	0.01
P-452	442.00	6.0	130.0	0.00	Open	-70.82	0.55	0.24	0.80
P-453	249.00	8.0	130.0	0.00	Open	-6.07	0.00	0.00	0.04
P-454	474.00	6.0	130.0	0.00	Open	-14.79	0.03	0.01	0.17
P-455	282.00	6.0	130.0	0.00	Open	8.72	0.01	0.00	0.10
P-456	228.00	6.0	130.0	0.00	Open	62.81	0.44	0.10	0.71
P-457	187.00	6.0	130.0	0.00	Open	56.48	0.36	0.07	0.64
P-458	224.00	6.0	130.0	0.00	Open	8.72	0.01	0.00	0.10
P-459	406.00	6.0	130.0	0.00	Open	-2.38	0.00	0.00	0.03
P-460	584.00	8.0	130.0	0.00	Open	-52.67	0.08	0.05	0.34
P-461	154.00	6.0	130.0	0.00	Open	-11.10	0.02	0.00	0.13
P-462	374.00	6.0	130.0	0.00	Open	-82.70	0.73	0.27	0.94
P-463	198.00	6.0	130.0	0.00	Open	62.89	0.44	0.09	0.71
P-464	179.00	6.0	130.0	0.00	Open	8.72	0.01	0.00	0.10
P-465	239.00	6.0	130.0	0.00	Open	45.46	0.24	0.06	0.52
P-466	172.00	6.0	130.0	0.00	Open	4.53	0.00	0.00	0.05
P-467	208.00	6.0	130.0	0.00	Open	-12.90	0.02	0.00	0.15
P-468	384.00	6.0	130.0	0.00	Open	-39.05	0.18	0.07	0.44
P-469	206.00	6.0	130.0	0.00	Open	17.43	0.04	0.01	0.20
P-470	269.00	8.0	130.0	0.00	Open	-4.01	0.00	0.00	0.03
P-471	138.00	6.0	130.0	0.00	Open	8.72	0.01	0.00	0.10
P-472	453.00	6.0	130.0	0.00	Open	8.72	0.01	0.01	0.10
P-473	572.00	6.0	130.0	0.00	Open	-32.22	0.13	0.07	0.37
P-474	1,161.00	12.0	130.0	0.00	Open	84.00	0.03	0.03	0.24

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-475	1,234.00	12.0	130.0	0.00	Open	56.00	0.01	0.02	0.16
P-476	1,214.00	12.0	130.0	0.00	Open	28.00	0.00	0.00	0.08
P-477	230.00	12.0	130.0	0.00	Closed	0.00	0.00	0.00	0.00
P-480	298.00	8.0	130.0	0.00	Open	30.29	0.03	0.01	0.19
P-482	246.00	8.0	130.0	0.00	Open	-165.29	0.65	0.16	1.06
P-484	532.00	8.0	130.0	0.00	Open	-306.16	2.04	1.09	1.95
P-485	189.00	8.0	130.0	0.00	Open	-306.16	2.04	0.39	1.95
P-488	298.00	8.0	130.0	0.00	Open	139.18	0.47	0.14	0.89
P-490	266.00	8.0	130.0	0.00	Open	-2.29	0.00	0.00	0.01
P-491	460.00	12.0	130.0	0.00	Open	118.83	0.05	0.02	0.34
P-492	230.00	12.0	130.0	0.00	Open	97.55	0.03	0.01	0.28
P-493	94.00	8.0	130.0	0.00	Open	487.53	4.83	0.45	3.11
P-494	297.00	8.0	130.0	0.00	Open	248.72	1.39	0.41	1.59
P-495	296.00	8.0	130.0	0.00	Open	69.80	0.13	0.04	0.45
P-496	615.00	8.0	130.0	0.00	Open	55.43	0.09	0.05	0.35
P-498	152.00	8.0	130.0	0.00	Open	-38.57	0.04	0.01	0.25
P-499	132.00	8.0	130.0	0.00	Open	60.00	0.10	0.01	0.38
P-500	445.00	6.0	130.0	0.00	Open	-12.92	0.02	0.01	0.15
P-501	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-502	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-503	300.00	8.0	130.0	25.00	Open	0.00	0.00	0.00	0.00
P-504	99.00	8.0	130.0	0.00	Open	209.32	1.01	0.10	1.34
P-506	238.00	8.0	130.0	0.00	Open	203.72	0.96	0.23	1.30
P-507	652.00	12.0	130.0	0.00	Open	-0.00	0.00	0.00	0.00
P-508	317.00	12.0	130.0	0.00	Open	47.46	0.01	0.00	0.13
P-509	343.00	12.0	130.0	0.00	Open	47.46	0.01	0.00	0.13
P-510	348.00	8.0	130.0	0.00	Open	13.00	0.01	0.00	0.08
P-511	71.00	8.0	130.0	0.00	Open	47.46	0.06	0.00	0.30
P-512	119.00	8.0	130.0	0.00	Open	47.46	0.06	0.01	0.30
P-513	139.00	8.0	130.0	0.00	Open	47.46	0.06	0.01	0.30
P-514	201.00	8.0	130.0	0.00	Open	26.79	0.02	0.00	0.17
P-515	285.00	8.0	130.0	0.00	Open	-23.50	0.02	0.01	0.15
P-516	178.00	8.0	130.0	0.00	Open	-36.28	0.04	0.01	0.23
P-517	201.00	8.0	130.0	0.00	Open	11.82	0.00	0.00	0.08
P-518	92.00	8.0	130.0	0.00	Open	2.96	0.00	0.00	0.02
P-519	300.00	8.0	130.0	0.00	Open	-20.91	0.01	0.00	0.13
P-520	558.00	8.0	130.0	0.00	Open	4.69	0.00	0.00	0.03
P-521	359.00	8.0	130.0	0.00	Open	-20.91	0.01	0.01	0.13
P-522	292.00	8.0	130.0	0.00	Open	8.66	0.00	0.00	0.06
P-523	177.00	8.0	130.0	0.00	Open	-42.35	0.05	0.01	0.27
P-524	193.00	8.0	130.0	0.00	Open	-67.39	0.12	0.02	0.43
P-525	407.00	8.0	130.0	0.00	Open	-79.99	0.17	0.07	0.51
P-526	172.00	8.0	130.0	0.00	Open	-93.99	0.23	0.04	0.60
P-527	188.00	8.0	130.0	0.00	Open	130.82	0.42	0.08	0.84
P-528	203.00	8.0	130.0	0.00	Open	5.60	0.00	0.00	0.04
P-529	295.00	8.0	130.0	0.00	Open	-230.41	1.21	0.36	1.47
P-530	432.00	10.0	130.0	0.00	Open	-499.01	1.70	0.73	2.04
P-531	265.00	8.0	130.0	0.00	Open	51.60	0.08	0.02	0.33
P-532	309.00	8.0	130.0	0.00	Open	-65.61	0.12	0.04	0.42
P-533	397.00	8.0	130.0	0.00	Open	-74.01	0.15	0.06	0.47
P-534	299.00	8.0	130.0	0.00	Open	156.51	0.59	0.18	1.00

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-535	295.00	8.0	130.0	0.00	Open	4.73	0.00	0.00	0.03
P-536	297.00	8.0	130.0	0.00	Open	-5.07	0.00	0.00	0.03
P-537	284.00	8.0	130.0	0.00	Open	-106.01	0.29	0.08	0.68
P-538	475.00	8.0	130.0	0.00	Open	-81.34	0.18	0.08	0.52
P-539	276.00	8.0	130.0	0.00	Open	-89.74	0.21	0.06	0.57
P-540	864.00	8.0	130.0	0.00	Open	103.19	0.27	0.24	0.66
P-541	137.00	8.0	130.0	0.00	Open	-304.04	2.01	0.28	1.94
P-542	249.00	8.0	130.0	0.00	Open	-304.04	2.01	0.50	1.94
P-543	162.00	8.0	130.0	0.00	Open	-138.75	0.47	0.08	0.89
P-544	122.00	12.0	130.0	0.00	Open	595.95	0.97	0.12	1.69
P-545	287.00	12.0	130.0	0.00	Open	-743.11	1.46	0.42	2.11
P-546	400.00	8.0	130.0	0.00	Open	113.14	0.32	0.13	0.72
P-547	293.00	12.0	130.0	0.00	Open	-870.25	1.96	0.57	2.47
P-548	400.00	8.0	130.0	0.00	Open	272.72	1.65	0.66	1.74
P-549	137.00	8.0	130.0	0.00	Open	188.37	0.83	0.11	1.20
P-550	282.00	10.0	130.0	0.00	Open	602.20	2.41	0.68	2.46
P-551	209.00	8.0	130.0	0.00	Open	188.37	0.83	0.17	1.20
P-552	210.00	12.0	130.0	0.00	Open	1,149.97	3.28	0.69	3.26
P-553	299.00	8.0	130.0	0.00	Open	74.55	0.15	0.04	0.48
P-554	281.00	8.0	130.0	0.00	Open	176.49	0.74	0.21	1.13
P-555	143.00	6.0	130.0	0.00	Open	-120.59	1.48	0.21	1.37
P-556	622.00	6.0	130.0	0.00	Open	78.93	0.67	0.42	0.90
P-557	147.00	8.0	130.0	0.00	Open	199.52	0.92	0.14	1.27
P-558	1,232.00	8.0	130.0	0.00	Open	199.52	0.92	1.14	1.27
P-559	325.00	8.0	130.0	0.00	Open	199.52	0.92	0.30	1.27
P-560	343.00	8.0	130.0	0.00	Open	111.07	0.31	0.11	0.71
P-560A	288.00	8.0	130.0	0.00	Open	85.87	0.19	0.06	0.55
P-570	269.00	10.0	130.0	0.00	Open	378.08	1.02	0.27	1.54
P-580	483.00	12.0	130.0	0.00	Open	334.02	0.33	0.16	0.95
P-600	376.00	8.0	130.0	0.00	Open	31.08	0.03	0.01	0.20
P-610	265.00	8.0	130.0	0.00	Open	-23.17	0.02	0.00	0.15
P-620	497.00	8.0	130.0	0.00	Open	18.27	0.01	0.01	0.12
P-630	208.00	6.0	130.0	0.00	Open	12.81	0.02	0.00	0.15
P-640	403.00	10.0	130.0	0.00	Open	-431.87	1.30	0.52	1.76
P-650	190.00	8.0	130.0	0.00	Open	67.15	0.12	0.02	0.43
P-660	545.00	8.0	130.0	0.00	Open	32.96	0.03	0.02	0.21
P-670	233.00	8.0	130.0	0.00	Open	-79.45	0.17	0.04	0.51
P-690	289.00	8.0	130.0	0.00	Open	-46.46	0.06	0.02	0.30
P-690A	101.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-700	1,031.00	8.0	130.0	0.00	Open	7.26	0.00	0.00	0.05
P-710	128.00	8.0	130.0	0.00	Open	-32.96	0.03	0.00	0.21
P-710A	105.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-720	393.00	10.0	130.0	0.00	Open	-665.61	2.90	1.14	2.72
P-730	203.00	8.0	130.0	0.00	Open	233.75	1.24	0.25	1.49
P-740	274.00	8.0	130.0	0.00	Open	91.94	0.22	0.06	0.59
P-750	206.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-760	266.00	6.0	130.0	0.00	Open	-16.12	0.04	0.01	0.18
P-770	421.00	8.0	130.0	0.00	Open	108.07	0.30	0.12	0.69
P-780	663.00	6.0	130.0	0.00	Open	41.28	0.20	0.13	0.47
P-790	147.00	6.0	130.0	0.00	Open	53.79	0.33	0.05	0.61
P-800	264.00	6.0	130.0	0.00	Open	84.40	0.76	0.20	0.96

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-810	273.00	8.0	130.0	0.00	Open	76.36	0.16	0.04	0.49
P-820	481.00	6.0	130.0	0.00	Open	-15.59	0.03	0.02	0.18
P-830	553.00	6.0	130.0	0.00	Open	69.94	0.54	0.30	0.79
P-840	244.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-850	776.00	10.0	130.0	0.00	Open	290.28	0.62	0.48	1.19
P-860	192.00	8.0	130.0	0.00	Open	-5.02	0.00	0.00	0.03
P-870	156.00	10.0	130.0	0.00	Open	-127.79	0.14	0.02	0.52
P-880	607.00	8.0	130.0	0.00	Open	-32.99	0.03	0.02	0.21
P-880A	268.00	8.0	130.0	0.00	Closed	0.00	0.00	0.00	0.00
P-890	279.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-900	192.00	8.0	130.0	0.00	Open	29.47	0.03	0.01	0.19
P-910	663.00	8.0	130.0	0.00	Open	29.47	0.03	0.02	0.19
P-920	375.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-930	227.00	8.0	130.0	0.00	Open	92.82	0.22	0.05	0.59
P-940	268.00	8.0	130.0	0.00	Open	92.82	0.22	0.06	0.59
P-950	214.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-960A	385.00	8.0	130.0	0.00	Open	-5.51	0.00	0.00	0.04
P-960B	484.00	8.0	130.0	0.00	Open	-5.51	0.00	0.00	0.04
P-970	515.00	6.0	130.0	0.00	Open	-31.48	0.12	0.06	0.36
P-980	267.00	6.0	130.0	0.00	Open	18.71	0.05	0.01	0.21
P-990	256.00	8.0	130.0	0.00	Open	-7.27	0.00	0.00	0.05
P-1000	468.00	6.0	130.0	0.00	Open	-12.77	0.02	0.01	0.14
P-1000	136.00	6.0	130.0	0.00	Open	-5.51	0.00	0.00	0.06
P-1010	230.00	8.0	130.0	0.00	Open	113.33	0.32	0.07	0.72
P-1030	261.00	8.0	130.0	0.00	Open	144.81	0.51	0.13	0.92
P-1040	332.00	8.0	130.0	0.00	Open	156.54	0.59	0.20	1.00
P-1050	315.00	8.0	130.0	0.00	Open	29.47	0.03	0.01	0.19
P-1060	499.00	8.0	130.0	0.00	Open	127.21	0.40	0.20	0.81
P-1070	590.00	10.0	130.0	0.00	Open	260.81	0.51	0.30	1.07
P-1080	509.00	6.0	130.0	0.00	Open	-4.54	0.00	0.00	0.05
P-1090	188.00	8.0	130.0	0.00	Open	46.35	0.06	0.01	0.30
P-1100	533.00	8.0	130.0	0.00	Open	89.75	0.21	0.11	0.57
P-1110	211.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1120	456.00	8.0	130.0	0.00	Open	46.35	0.06	0.03	0.30
P-1130	295.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1140	211.00	10.0	130.0	0.00	Open	40.39	0.02	0.00	0.16
P-1145	509.00	10.0	130.0	0.00	Open	174.14	0.24	0.12	0.71
P-1150	199.00	8.0	130.0	0.00	Open	-103.92	0.28	0.05	0.66
P-1160	820.00	8.0	130.0	0.00	Open	-62.96	0.11	0.09	0.40
P-1170	286.00	8.0	130.0	0.00	Open	-70.54	0.13	0.04	0.45
P-1180	132.00	8.0	130.0	0.00	Open	120.08	0.36	0.05	0.77
P-1200	174.00	8.0	130.0	0.00	Open	128.48	0.41	0.07	0.82
P-1210	163.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1220	306.00	8.0	130.0	0.00	Open	-103.28	0.27	0.08	0.66
P-1230	249.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1240	777.00	8.0	130.0	0.00	Open	27.68	0.02	0.02	0.18
P-1250	505.00	6.0	130.0	0.00	Open	0.54	0.00	0.00	0.01
P-1260	263.00	6.0	130.0	0.00	Open	17.84	0.04	0.01	0.20
P-1270	189.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1280	818.00	6.0	130.0	0.00	Open	21.36	0.06	0.05	0.24
P-1290	259.00	6.0	130.0	0.00	Open	40.96	0.20	0.05	0.46

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-1300	188.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1320	294.00	16.0	130.0	0.00	Open	-1,362.97	1.11	0.33	2.17
P-1330	781.00	12.0	130.0	0.00	Open	-485.16	0.66	0.52	1.38
P-1340	1,202.00	8.0	130.0	40.00	Open	164.45	1.21	1.46	1.05
P-1350	838.00	8.0	130.0	40.00	Open	164.55	1.46	1.23	1.05
P-1360	717.00	10.0	130.0	0.00	Open	78.03	0.05	0.04	0.32
P-1370	301.00	12.0	130.0	0.00	Open	120.83	0.05	0.02	0.34
P-1380	491.00	16.0	130.0	0.00	Open	138.60	0.02	0.01	0.22
P-1440	926.00	12.0	130.0	0.00	Open	-17.77	0.00	0.00	0.05
P-1450	819.00	12.0	130.0	0.00	Open	78.65	0.02	0.02	0.22
P-1460	425.00	6.0	130.0	0.00	Open	37.46	0.17	0.07	0.43
P-1470	613.00	6.0	130.0	0.00	Open	27.14	0.09	0.06	0.31
P-1490	513.00	8.0	130.0	0.00	Open	-7.98	0.00	0.00	0.05
P-1500	214.00	6.0	130.0	0.00	Open	-3.99	0.00	0.00	0.05
P-1510	515.00	8.0	130.0	0.00	Open	-85.87	0.19	0.10	0.55
P-1520	412.00	6.0	130.0	0.00	Open	26.97	0.09	0.04	0.31
P-1590	428.00	6.0	130.0	0.00	Open	4.69	0.00	0.00	0.05
P-1605	674.00	12.0	130.0	0.00	Open	33.96	0.00	0.00	0.10
P-1620	364.00	12.0	130.0	0.00	Open	581.95	0.93	0.34	1.65
P-1640	209.00	8.0	130.0	0.00	Open	-56.54	0.09	0.02	0.36
P-1855	1,339.00	12.0	130.0	0.00	Open	121.17	0.05	0.07	0.34
P-1860	468.00	12.0	130.0	0.00	Open	78.65	0.02	0.01	0.22
P-1875	1,324.00	10.0	130.0	0.00	Open	121.17	0.12	0.16	0.49
P-1915	227.00	8.0	130.0	0.00	Open	3.14	0.00	0.00	0.02
P-1920	465.00	8.0	130.0	0.00	Open	-9.17	0.00	0.00	0.06
P-1925	137.00	8.0	130.0	0.00	Open	6.23	0.00	0.00	0.04
P-1930	174.00	8.0	130.0	0.00	Open	-22.92	0.02	0.00	0.15
P-1935	238.00	8.0	130.0	0.00	Open	-42.52	0.05	0.01	0.27
P-1950	473.00	10.0	130.0	0.00	Open	-133.09	0.15	0.07	0.54
P-1955	350.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1960	325.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1965	460.00	8.0	130.0	0.00	Open	-16.70	0.01	0.00	0.11
P-1970	341.00	8.0	130.0	0.00	Open	-2.70	0.00	0.00	0.02
P-1975	424.00	8.0	130.0	0.00	Open	12.70	0.01	0.00	0.08
P-1980	255.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1985	258.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1990	258.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1995	287.00	8.0	130.0	0.00	Open	53.13	0.08	0.02	0.34
P-2000	299.00	8.0	130.0	0.00	Open	-300.06	1.97	0.59	1.92
P-2005	306.00	8.0	130.0	0.00	Open	53.13	0.08	0.02	0.34
P-2010	1,308.00	8.0	130.0	0.00	Open	-44.55	0.06	0.08	0.28
P-2015	934.00	8.0	130.0	0.00	Open	-18.02	0.01	0.01	0.12
P-2020	299.00	8.0	130.0	0.00	Open	21.98	0.02	0.00	0.14
P-2025	296.00	8.0	130.0	0.00	Open	-12.32	0.01	0.00	0.08
P-2030	274.00	8.0	130.0	0.00	Open	53.46	0.08	0.02	0.34
P-2035	301.00	8.0	130.0	0.00	Open	19.78	0.01	0.00	0.13
P-2040	334.00	8.0	130.0	0.00	Open	87.05	0.20	0.07	0.56
P-2050	168.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2055	298.00	8.0	130.0	0.00	Open	35.10	0.04	0.01	0.22
P-2060	680.00	8.0	130.0	0.00	Open	102.45	0.27	0.18	0.65
P-2070	684.00	6.0	130.0	0.00	Open	15.39	0.03	0.02	0.17

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-2080	418.00	8.0	130.0	0.00	Open	-3.48	0.00	0.00	0.02
P-2085	640.00	8.0	130.0	0.00	Open	-54.49	0.08	0.05	0.35
P-2090	748.00	6.0	130.0	0.00	Open	-2.07	0.00	0.00	0.02
P-2095	259.00	8.0	130.0	0.00	Open	138.42	0.47	0.12	0.88
P-2100	378.00	6.0	130.0	0.00	Open	-2.07	0.00	0.00	0.02
P-2110	349.00	8.0	130.0	0.00	Open	16.80	0.01	0.00	0.11
P-2120	954.00	8.0	130.0	0.00	Open	255.51	1.46	1.39	1.63
P-2130	903.00	6.0	130.0	0.00	Open	120.93	1.48	1.34	1.37
P-2135	554.00	10.0	130.0	0.00	Open	162.75	0.21	0.12	0.66
P-2140	388.00	6.0	130.0	0.00	Open	11.20	0.02	0.01	0.13
P-2145	444.00	6.0	130.0	0.00	Open	162.75	2.57	1.14	1.85
P-2150	302.00	6.0	130.0	0.00	Open	84.53	0.76	0.23	0.96
P-2155	187.00	8.0	130.0	0.00	Open	-168.50	0.68	0.13	1.08
P-2160	306.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2165	374.00	8.0	130.0	0.00	Open	307.61	2.06	0.77	1.96
P-2170	284.00	6.0	130.0	0.00	Open	69.13	0.53	0.15	0.78
P-2175	712.00	10.0	130.0	0.00	Open	254.26	0.49	0.35	1.04
P-2180	309.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2185	445.00	8.0	130.0	0.00	Open	91.51	0.22	0.10	0.58
P-2190	216.00	8.0	130.0	0.00	Open	199.30	0.92	0.20	1.27
P-2195	303.00	6.0	130.0	0.00	Open	-40.37	0.19	0.06	0.46
P-2200	320.00	8.0	130.0	0.00	Open	233.93	1.24	0.40	1.49
P-2205	364.00	6.0	130.0	0.00	Open	-40.37	0.19	0.07	0.46
P-2210	546.00	8.0	130.0	0.00	Open	419.15	3.65	1.99	2.68
P-2215	376.00	8.0	130.0	0.00	Open	143.53	0.50	0.19	0.92
P-2220	212.00	6.0	130.0	0.00	Open	-106.59	1.17	0.25	1.21
P-2225	303.00	6.0	130.0	0.00	Open	-40.37	0.19	0.06	0.46
P-2230	290.00	8.0	130.0	0.00	Open	525.73	5.55	1.61	3.36
P-2235	173.00	8.0	130.0	0.00	Open	324.41	2.27	0.39	2.07
P-2240	616.00	6.0	130.0	0.00	Open	43.93	0.23	0.14	0.50
P-2245	301.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2250	146.00	8.0	130.0	0.00	Open	167.20	0.67	0.10	1.07
P-2260	267.00	8.0	130.0	0.00	Open	-330.58	2.35	0.63	2.11
P-2265	823.00	10.0	130.0	0.00	Open	-163.17	0.21	0.18	0.67
P-2270	266.00	8.0	130.0	0.00	Open	312.90	2.12	0.56	2.00
P-2275	610.00	10.0	130.0	0.00	Open	-86.51	0.07	0.04	0.35
P-2280	318.00	8.0	130.0	0.00	Open	236.65	1.27	0.40	1.51
P-2290	450.00	8.0	130.0	0.00	Open	113.57	0.33	0.15	0.72
P-2300	343.00	8.0	130.0	0.00	Open	70.11	0.13	0.05	0.45
P-2305	281.00	8.0	130.0	0.00	Open	70.11	0.13	0.04	0.45
P-2310	383.00	8.0	130.0	0.00	Open	-200.02	0.93	0.36	1.28
P-2320	210.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2330	270.00	8.0	130.0	0.00	Open	174.82	0.72	0.20	1.12
P-2340	258.00	6.0	130.0	0.00	Open	54.75	0.34	0.09	0.62
P-2350	252.00	6.0	130.0	0.00	Open	-17.68	0.04	0.01	0.20
P-2360	395.00	8.0	130.0	0.00	Open	120.07	0.36	0.14	0.77
P-2370	416.00	8.0	130.0	0.00	Open	120.07	0.36	0.15	0.77
P-2380	141.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2390	273.00	8.0	130.0	0.00	Open	-94.87	0.23	0.06	0.61
P-2400	398.00	6.0	130.0	0.00	Open	-72.43	0.57	0.23	0.82
P-2410	408.00	6.0	130.0	0.00	Open	-27.63	0.10	0.04	0.31

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-2420	583.00	8.0	130.0	0.00	Open	-122.50	0.37	0.22	0.78
P-2430	458.00	8.0	130.0	0.00	Open	-90.30	0.21	0.10	0.58
P-2440	185.00	8.0	130.0	0.00	Open	76.25	0.16	0.03	0.49
P-2450	412.00	8.0	130.0	0.00	Open	-166.55	0.66	0.27	1.06
P-2460	726.00	8.0	130.0	0.00	Open	-114.75	0.33	0.24	0.73
P-2470	702.00	6.0	130.0	0.00	Open	-8.62	0.01	0.01	0.10
P-2490	292.00	8.0	130.0	0.00	Open	-71.13	0.14	0.04	0.45
P-2500	542.00	6.0	130.0	0.00	Open	21.25	0.06	0.03	0.24
P-2510	368.00	6.0	130.0	0.00	Open	39.23	0.18	0.07	0.45
P-2520	209.00	8.0	130.0	0.00	Open	123.08	0.38	0.08	0.79
P-2530	657.00	8.0	130.0	0.00	Open	-83.85	0.19	0.12	0.54
P-2540	104.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2550	481.00	8.0	130.0	0.00	Open	-48.85	0.07	0.03	0.31
P-2560	569.00	8.0	130.0	0.00	Open	-58.78	0.10	0.05	0.38
P-2570	261.00	8.0	130.0	0.00	Open	-72.63	0.14	0.04	0.46
P-2580	875.00	6.0	130.0	0.00	Open	-14.37	0.03	0.03	0.16
P-2590	550.00	8.0	130.0	0.00	Open	20.46	0.01	0.01	0.13
P-2600	480.00	6.0	130.0	0.00	Open	16.43	0.04	0.02	0.19
P-2610	259.00	8.0	130.0	0.00	Open	-4.03	0.00	0.00	0.03
P-2620	526.00	6.0	130.0	0.00	Open	-11.47	0.02	0.01	0.13
P-2630	560.00	6.0	130.0	0.00	Open	23.53	0.07	0.04	0.27
P-2640	500.00	8.0	130.0	0.00	Open	-42.44	0.05	0.03	0.27
P-2650	297.00	8.0	130.0	0.00	Open	19.98	0.01	0.00	0.13
P-2660	340.00	8.0	130.0	0.00	Open	43.51	0.05	0.02	0.28
P-2670	299.00	6.0	130.0	0.00	Open	-22.45	0.07	0.02	0.25
P-2680	386.00	6.0	130.0	0.00	Open	-43.45	0.22	0.09	0.49
P-2690	211.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2700	703.00	8.0	130.0	0.00	Open	115.05	0.33	0.23	0.73
P-2730	303.00	8.0	130.0	0.00	Open	18.87	0.01	0.00	0.12
P-3000	1,498.00	12.0	130.0	0.00	Open	-1,210.29	3.61	5.41	3.43
P-3010	1,472.00	12.0	130.0	0.00	Open	-868.79	1.95	2.88	2.46
P-3020	373.00	12.0	130.0	0.00	Open	2,059.64	9.66	3.60	5.84
P-3025	126.00	12.0	130.0	0.00	Open	2,059.64	9.66	1.22	5.84
P-3030	248.00	8.0	130.0	0.00	Open	849.36	13.50	3.35	5.42
P-3040	292.00	8.0	130.0	0.00	Open	495.56	4.98	1.45	3.16
P-3050	303.00	8.0	130.0	0.00	Open	-293.60	1.89	0.57	1.87
P-3060	368.00	8.0	130.0	0.00	Open	-119.46	0.36	0.13	0.76
P-3070	271.00	8.0	130.0	0.00	Open	-293.60	1.89	0.51	1.87
P-3080	257.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3090	192.00	8.0	130.0	0.00	Open	-181.60	0.78	0.15	1.16
P-3095	467.00	8.0	130.0	0.00	Open	-119.46	0.36	0.17	0.76
P-3100	286.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3110	207.00	8.0	130.0	0.00	Open	-181.60	0.78	0.16	1.16
P-3120	536.00	12.0	130.0	0.00	Open	-485.16	0.66	0.36	1.38
P-3130	645.00	12.0	130.0	0.00	Open	303.57	0.28	0.18	0.86
P-3140	305.00	8.0	130.0	0.00	Open	120.90	0.37	0.11	0.77
P-3150	158.00	8.0	130.0	0.00	Open	107.20	0.29	0.05	0.68
P-3160	673.00	8.0	130.0	0.00	Open	820.55	12.66	8.52	5.24
P-3170	234.00	8.0	130.0	0.00	Open	33.95	0.03	0.01	0.22
P-3180	685.00	8.0	130.0	0.00	Open	56.00	0.09	0.06	0.36
P-3190	812.00	8.0	130.0	0.00	Open	-15.18	0.01	0.01	0.10

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-3200	249.00	8.0	130.0	0.00	Open	40.82	0.05	0.01	0.26
P-3210	188.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3220	747.00	8.0	130.0	0.00	Open	-15.18	0.01	0.01	0.10
P-3240	141.00	8.0	130.0	0.00	Open	-142.95	0.50	0.07	0.91
P-3250	161.00	8.0	130.0	0.00	Open	-79.03	0.17	0.03	0.50
P-3260	440.00	8.0	130.0	0.00	Open	-115.89	0.34	0.15	0.74
P-3270	290.00	8.0	130.0	0.00	Open	129.72	0.42	0.12	0.83
P-3290	293.00	8.0	130.0	0.00	Open	-59.89	0.10	0.03	0.38
P-3300	175.00	8.0	130.0	0.00	Open	210.46	1.02	0.18	1.34
P-3310	649.00	6.0	130.0	0.00	Open	80.74	0.70	0.46	0.92
P-3325	144.00	8.0	130.0	0.00	Open	213.01	1.04	0.15	1.36
P-3330	273.00	8.0	130.0	0.00	Open	380.95	3.06	0.83	2.43
P-3340	328.00	8.0	130.0	0.00	Open	13.69	0.01	0.00	0.09
P-3350	170.00	8.0	130.0	0.00	Open	105.81	0.29	0.05	0.68
P-3360	291.00	8.0	130.0	0.00	Open	28.55	0.03	0.01	0.18
P-3370	752.00	8.0	130.0	0.00	Open	63.55	0.11	0.08	0.41
P-3380	327.00	6.0	130.0	0.00	Open	-43.65	0.22	0.07	0.50
P-3390	305.00	8.0	130.0	0.00	Open	49.80	0.07	0.02	0.32
P-3400	412.00	8.0	130.0	0.00	Open	-20.26	0.01	0.01	0.13
P-3410	369.00	6.0	130.0	0.00	Open	11.35	0.02	0.01	0.13
P-3420	290.00	8.0	130.0	0.00	Open	-293.60	1.89	0.55	1.87
P-3430	175.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3440	288.00	8.0	130.0	0.00	Open	-62.13	0.11	0.03	0.40
P-3450	279.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3460	634.00	8.0	130.0	0.00	Open	-130.73	0.42	0.27	0.83
P-3470	466.00	12.0	130.0	0.00	Open	-1,027.62	2.67	1.24	2.92
P-3480	211.00	8.0	130.0	0.00	Open	47.25	0.06	0.01	0.30
P-3490	283.00	8.0	130.0	0.00	Open	31.50	0.03	0.01	0.20
P-3500	292.00	6.0	130.0	0.00	Open	-21.25	0.06	0.02	0.24
P-3510	490.00	6.0	130.0	0.00	Open	42.15	0.21	0.10	0.48
P-3530	702.00	8.0	130.0	0.00	Open	170.49	0.69	0.48	1.09
P-3540	576.00	6.0	130.0	0.00	Open	19.14	0.05	0.03	0.22
P-3550	705.00	8.0	130.0	0.00	Open	129.72	0.42	0.29	0.83
P-3620	958.00	8.0	130.0	0.00	Open	-63.66	0.11	0.11	0.41
P-5000	182.00	8.0	130.0	0.00	Open	50.08	0.07	0.01	0.32

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Reservoir Report

Label	Elevation (ft)	Inflow (gpm)	Calculated Hydraulic Grade (ft)	Outflow (gpm)
R-1	275.00	-2,819.10	275.00	2,819.10
R-2	275.00	-2,880.19	275.00	2,880.19
R-3	275.00	-0.00	275.00	0.00
R-4	275.00	-0.00	275.00	0.00

Scenario: Peak Hour, 50 psig at Hydro Tank
Steady State Analysis
Valve Report

Label	Elevation (ft)	Diameter (in)	Control Status	Discharge (gpm)	Calculated Pressure Setting (psi)
PRV-1	65.00	16.0	Throttling	2,819.10	46.00
PRV-2	58.00	16.0	Throttling	2,880.19	53.00
PRV-3	81.00	12.0	Inactive	0.00	0.00
PRV-4	41.70	12.0	Inactive	0.00	0.00

MAXIMUM DAY DEMAND PLUS FIRE FLOW

Scenario: Maximum Day, 60 psig at Hydro Tank
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-1	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.62	42.90	J-1010
J-2	true	true	1,000.00	3,000.00	1,000.00	3,000.00	41.47	38.45	J-33
J-3	true	true	1,000.00	3,000.00	1,000.00	3,000.00	37.06	37.74	J-18
J-5	true	true	1,000.00	3,000.00	1,000.00	3,000.00	35.88	35.06	J-9
J-6	true	true	1,000.00	2,000.00	1,000.00	2,000.00	57.17	43.61	J-1010
J-7	true	true	1,000.00	3,000.00	1,012.00	3,012.00	30.98	31.00	J-9
J-8	true	true	1,000.00	2,861.34	1,012.00	2,873.34	20.00	20.00	J-9
J-9	true	true	1,000.00	2,437.85	1,008.80	2,446.65	20.00	30.65	J-8
J-10	true	true	1,000.00	3,000.00	1,000.00	3,000.00	52.71	41.93	J-1010
J-11	true	true	1,000.00	2,809.69	1,000.00	2,809.69	20.00	20.52	J-12
J-12	true	true	1,000.00	2,401.33	1,000.00	2,401.33	20.00	30.69	J-11
J-13	true	true	1,000.00	2,951.92	1,010.40	2,962.32	20.00	23.35	J-11
J-14	true	true	1,000.00	3,000.00	1,010.40	3,010.40	24.67	25.66	J-13
J-15	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.91	35.14	J-13
J-16	true	true	1,000.00	3,000.00	1,011.20	3,011.20	32.65	35.92	J-17
J-17	true	true	1,000.00	3,000.00	1,014.40	3,014.40	31.68	35.98	J-16
J-18	true	true	1,000.00	3,000.00	1,000.00	3,000.00	30.95	32.15	J-19
J-19	true	true	1,000.00	3,000.00	1,046.88	3,046.88	26.91	30.51	J-21
J-20	true	true	1,000.00	3,000.00	1,034.38	3,034.38	51.16	42.89	J-1010
J-21	true	true	1,000.00	3,000.00	1,000.00	3,000.00	25.70	28.90	J-23
J-22	true	true	1,000.00	3,000.00	1,000.00	3,000.00	26.09	25.41	J-23
J-23	true	true	1,000.00	3,000.00	1,050.00	3,050.00	22.33	26.77	J-22
J-24	true	true	1,000.00	3,000.00	1,000.00	3,000.00	26.46	25.46	J-23
J-25	true	true	1,000.00	3,000.00	1,000.00	3,000.00	28.68	29.47	J-23
J-26	true	true	1,000.00	3,000.00	1,000.00	3,000.00	24.16	25.16	J-27
J-27	true	true	1,000.00	3,000.00	1,018.12	3,018.12	20.76	23.39	J-28
J-28	true	true	1,000.00	2,989.14	1,000.00	2,989.14	20.00	22.02	J-29
J-29	true	true	1,000.00	2,988.16	1,028.12	3,016.28	20.00	22.06	J-28
J-30	true	true	1,000.00	3,000.00	1,000.00	3,000.00	52.57	40.88	J-1010
J-31	true	true	1,000.00	3,000.00	1,000.00	3,000.00	20.97	24.04	J-32
J-32	true	true	1,000.00	3,000.00	1,000.00	3,000.00	22.53	23.65	J-31
J-33	true	true	1,000.00	3,000.00	1,038.12	3,038.12	23.82	27.04	J-32
J-34	true	true	1,000.00	3,000.00	1,000.00	3,000.00	34.08	32.01	J-33
J-35	true	true	1,000.00	3,000.00	1,020.62	3,020.62	26.07	29.22	J-36
J-36	true	true	1,000.00	3,000.00	1,000.00	3,000.00	27.26	28.90	J-35
J-37	true	true	1,000.00	3,000.00	1,018.12	3,018.12	30.25	30.31	J-36
J-39	true	true	1,000.00	3,000.00	1,031.26	3,031.26	41.46	40.54	J-41
J-40	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.31	41.85	J-1010
J-40A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.07	42.15	J-1010
J-41	true	true	1,000.00	3,000.00	1,010.00	3,010.00	35.95	36.39	J-298
J-42	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.28	42.92	J-1010
J-43	true	true	1,000.00	3,000.00	1,010.00	3,010.00	46.65	42.92	J-1010
J-44	true	true	1,000.00	3,000.00	1,020.00	3,020.00	45.62	42.92	J-1010
J-45	true	true	1,000.00	3,000.00	1,000.00	3,000.00	37.42	38.17	J-46
J-46	true	true	1,000.00	3,000.00	1,021.26	3,021.26	34.16	36.24	J-47
J-47	true	true	1,000.00	3,000.00	1,000.00	3,000.00	31.41	33.82	J-48
J-48	true	true	1,000.00	3,000.00	1,027.50	3,027.50	29.64	32.31	J-296
J-50	true	true	1,000.00	3,000.00	1,018.00	3,018.00	50.43	42.72	J-1010
J-52	true	true	1,000.00	3,000.00	1,035.00	3,035.00	30.84	33.26	J-296
J-55	true	true	1,000.00	3,000.00	1,000.00	3,000.00	57.35	42.19	J-2470

Scenario: Maximum Day, 60 psig at Hydro Tank
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-60	true	true	1,000.00	3,000.00	1,000.00	3,000.00	47.69	42.34	J-1010
J-65	true	true	1,000.00	3,000.00	1,008.00	3,008.00	48.03	42.63	J-2470
J-70	true	true	1,000.00	3,000.00	1,000.00	3,000.00	47.60	42.45	J-1010
J-75	true	true	1,500.00	3,000.00	1,508.00	3,008.00	50.52	42.98	J-2470
J-80	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.39	42.42	J-1010
J-90	true	true	1,000.00	3,000.00	1,038.40	3,038.40	43.26	42.27	J-1010
J-100	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.52	42.09	J-1010
J-110	true	true	1,000.00	3,000.00	1,043.20	3,043.20	35.82	42.16	J-1010
J-120	true	true	1,000.00	3,000.00	1,000.00	3,000.00	29.59	38.66	J-140
J-130	true	true	1,000.00	3,000.00	1,031.20	3,031.20	37.57	37.43	J-140
J-130A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	38.27	38.94	J-120
J-140	true	true	1,000.00	2,883.82	1,000.00	2,883.82	20.00	38.61	J-130
J-150	true	true	1,000.00	3,000.00	1,000.00	3,000.00	40.78	40.40	J-160
J-160	true	true	1,000.00	2,274.15	1,000.00	2,274.15	20.01	43.14	J-1010
J-170	true	true	1,000.00	3,000.00	1,000.00	3,000.00	47.09	42.48	J-1010
J-180	true	true	1,000.00	3,000.00	1,000.00	3,000.00	53.63	43.51	J-1010
J-190	true	true	1,000.00	3,000.00	1,000.00	3,000.00	52.33	43.30	J-1010
J-200	true	true	1,000.00	3,000.00	1,028.80	3,028.80	51.63	43.73	J-1010
J-210	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.23	43.56	J-1010
J-220	true	true	1,000.00	3,000.00	1,000.00	3,000.00	41.71	42.20	J-230
J-230	true	true	1,000.00	2,182.13	1,000.00	2,182.13	20.01	20.14	J-270
J-240	true	true	1,000.00	3,000.00	1,033.60	3,033.60	38.15	40.76	J-230
J-250	true	true	1,000.00	2,256.42	1,032.00	2,288.42	20.00	20.49	J-260
J-260	true	true	1,000.00	1,563.80	1,000.00	1,563.80	20.00	36.85	J-250
J-270	true	true	1,000.00	1,695.00	1,000.00	1,695.00	20.00	32.58	J-230
J-280	true	true	1,000.00	3,000.00	1,019.20	3,019.20	40.43	40.13	J-290
J-290	true	true	1,000.00	2,458.58	1,000.00	2,458.58	20.01	43.22	J-1010
J-296	true	true	1,000.00	3,000.00	1,000.00	3,000.00	29.25	32.42	J-48
J-298	true	true	1,000.00	3,000.00	1,000.00	3,000.00	32.27	35.42	J-52
J-300	true	true	1,000.00	3,000.00	1,000.00	3,000.00	37.67	38.81	J-400
J-302	true	true	1,000.00	3,000.00	1,000.00	3,000.00	47.33	42.92	J-1010
J-306	true	true	1,000.00	3,000.00	1,000.00	3,000.00	39.60	38.90	J-9
J-310	true	true	1,000.00	3,000.00	1,017.60	3,017.60	39.81	40.49	J-300
J-320	true	true	1,000.00	3,000.00	1,008.00	3,008.00	44.81	42.40	J-1010
J-330	true	true	1,000.00	3,000.00	1,024.00	3,024.00	37.48	40.51	J-335
J-335	true	true	1,000.00	2,623.84	1,011.20	2,635.04	20.00	41.26	J-340
J-340	true	true	1,000.00	3,000.00	1,000.00	3,000.00	27.11	35.00	J-335
J-344	true	true	1,000.00	3,000.00	1,000.00	3,000.00	57.95	44.68	J-1010
J-345	true	true	1,000.00	3,000.00	1,000.00	3,000.00	61.96	44.69	J-1010
J-346	true	true	1,000.00	3,000.00	1,000.00	3,000.00	83.68	44.70	J-1010
J-347	true	true	1,000.00	3,000.00	1,000.00	3,000.00	33.15	32.72	J-407
J-348	true	true	1,000.00	3,000.00	1,000.00	3,000.00	34.74	34.31	J-407
J-349	true	true	1,000.00	1,636.86	1,004.98	1,641.84	20.01	42.46	J-372
J-350	true	true	1,000.00	3,000.00	1,007.20	3,007.20	28.01	30.77	J-355
J-351	true	true	1,000.00	3,000.00	1,004.98	3,004.98	30.30	36.49	J-372
J-352	true	true	1,000.00	3,000.00	1,004.98	3,004.98	41.79	43.44	J-1010
J-353	true	true	1,000.00	2,603.57	1,004.98	2,608.55	20.00	32.57	J-373
J-354	true	true	1,000.00	1,913.12	1,004.98	1,918.10	20.00	38.87	J-374
J-355	true	true	1,000.00	2,803.68	1,000.00	2,803.68	20.00	32.56	J-410
J-356	true	true	1,000.00	1,720.25	1,004.98	1,725.23	20.01	39.53	J-371

Scenario: Maximum Day, 60 psig at Hydro Tank
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-357	true	true	1,000.00	1,493.71	1,004.98	1,498.69	20.01	29.29	J-379
J-358	true	true	1,000.00	2,747.09	1,004.98	2,752.07	20.00	20.46	J-367
J-359	true	true	1,000.00	2,089.36	1,004.98	2,094.34	20.00	25.05	J-361
J-360	true	true	1,000.00	3,000.00	1,022.40	3,022.40	24.94	25.21	J-360A
J-360A	true	true	1,000.00	2,961.84	1,000.00	2,961.84	20.00	25.69	J-360
J-361	true	true	1,000.00	1,267.36	1,004.98	1,272.34	20.00	41.29	J-362
J-362	true	true	1,000.00	1,866.24	1,004.98	1,871.22	20.43	20.00	J-361
J-363	true	true	1,000.00	1,890.84	1,004.98	1,895.82	20.00	21.97	J-364
J-364	true	true	1,000.00	1,543.54	1,004.98	1,548.52	20.01	26.05	J-367
J-365	true	true	1,000.00	3,000.00	1,023.00	3,023.00	21.24	31.30	J-360
J-365A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	32.42	38.33	J-750A
J-366	true	true	1,000.00	1,971.45	1,004.98	1,976.43	20.00	20.81	J-367
J-367	true	true	1,000.00	1,532.90	1,004.98	1,537.88	20.01	26.89	J-364
J-368	true	true	1,000.00	2,607.25	1,004.98	2,612.23	20.00	22.40	J-359
J-369	true	true	1,000.00	2,710.37	1,004.98	2,715.35	20.00	23.98	J-371
J-370	true	true	1,000.00	3,000.00	1,019.40	3,019.40	36.01	37.82	J-390
J-371	true	true	1,000.00	2,395.99	1,004.98	2,400.97	20.00	20.22	J-356
J-372	true	true	1,000.00	2,424.78	1,004.98	2,429.76	20.00	20.22	J-349
J-373	true	true	1,000.00	2,990.41	1,004.98	2,995.39	20.00	21.92	J-353
J-374	true	true	1,000.00	2,631.61	1,004.98	2,636.59	20.00	20.32	J-354
J-375	true	true	1,000.00	2,670.66	1,004.98	2,675.64	20.00	23.05	J-376
J-376	true	true	1,000.00	2,384.29	1,004.98	2,389.27	20.00	20.35	J-377
J-377	true	true	1,000.00	1,399.87	1,004.98	1,404.85	20.00	44.13	J-1010
J-378	true	true	1,000.00	2,268.47	1,004.98	2,273.45	20.00	20.13	J-379
J-379	true	true	1,000.00	1,701.30	1,004.98	1,706.28	20.01	20.10	J-357
J-380	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.52	43.31	J-1010
J-381	true	true	1,000.00	3,000.00	1,016.00	3,016.00	37.02	38.49	J-382
J-382	true	true	1,000.00	3,000.00	1,016.00	3,016.00	27.93	30.22	J-383
J-383	true	true	1,000.00	2,997.97	1,016.00	3,013.97	20.00	27.98	J-382
J-384	true	true	1,000.00	3,000.00	1,000.00	3,000.00	21.06	44.70	J-1010
J-385	true	true	1,500.00	3,000.00	1,506.40	3,006.40	40.81	41.76	J-424
J-386	true	true	1,500.00	3,000.00	1,507.20	3,007.20	42.24	43.60	J-1010
J-387	true	true	1,000.00	3,000.00	1,010.40	3,010.40	45.08	43.55	J-2470
J-388	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.06	44.20	J-1010
J-389	true	true	1,500.00	3,000.00	1,504.00	3,004.00	47.97	43.78	J-2470
J-390	true	true	1,000.00	3,000.00	1,010.40	3,010.40	31.17	33.51	J-350
J-392	true	true	1,500.00	2,000.00	1,502.40	2,002.40	46.65	43.98	J-1010
J-394	true	true	1,500.00	2,000.00	1,504.80	2,004.80	49.52	44.02	J-1010
J-395	true	true	1,000.00	3,000.00	1,002.40	3,002.40	41.62	41.71	J-418
J-396	true	true	2,500.00	3,000.00	2,545.98	3,045.98	42.98	42.44	J-2470
J-397	true	true	1,000.00	3,000.00	1,006.40	3,006.40	45.22	43.19	J-2470
J-398	true	true	1,000.00	3,000.00	1,000.00	3,000.00	47.55	42.69	J-2470
J-399	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.25	41.16	J-2470
J-400	true	true	1,000.00	3,000.00	1,006.40	3,006.40	32.45	33.75	J-410
J-401	true	true	1,500.00	3,000.00	1,504.80	3,004.80	49.61	43.10	J-2470
J-402	true	true	1,000.00	3,000.00	1,008.00	3,008.00	51.12	43.64	J-2470
J-403	true	true	1,500.00	2,000.00	1,503.20	2,003.20	51.16	44.01	J-1010
J-404	true	true	2,500.00	3,000.00	2,506.26	3,006.26	42.19	41.30	J-2470
J-405	true	true	2,500.00	3,000.00	2,506.58	3,006.58	41.34	41.06	J-2470
J-406	true	true	1,000.00	3,000.00	1,000.00	3,000.00	100.77	44.70	J-1010

Scenario: Maximum Day, 60 psig at Hydro Tank
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-407	true	true	1,000.00	3,000.00	1,000.00	3,000.00	27.63	33.15	J-347
J-408	true	true	1,500.00	3,000.00	1,506.40	3,006.40	48.92	43.60	J-2470
J-409	true	true	1,500.00	3,000.00	1,504.00	3,004.00	52.96	44.00	J-1010
J-410	true	true	1,000.00	3,000.00	1,008.80	3,008.80	28.28	29.53	J-355
J-411	true	true	1,500.00	3,000.00	1,505.60	3,005.60	49.44	43.79	J-1010
J-412	true	true	1,500.00	3,000.00	1,500.00	3,000.00	48.72	43.78	J-1010
J-413	true	true	1,000.00	3,000.00	1,012.16	3,012.16	45.30	40.57	J-2470
J-414	true	true	1,500.00	3,000.00	1,504.80	3,004.80	49.62	43.54	J-2470
J-415	true	true	1,500.00	3,000.00	1,507.20	3,007.20	39.74	42.69	J-2470
J-416	true	true	1,500.00	3,000.00	1,508.00	3,008.00	42.51	42.94	J-2470
J-417	true	true	1,500.00	3,000.00	1,503.20	3,003.20	46.69	43.09	J-2470
J-418	true	true	1,500.00	3,000.00	1,503.20	3,003.20	29.41	41.62	J-395
J-419	true	true	1,500.00	3,000.00	1,506.40	3,006.40	42.74	43.50	J-2470
J-420	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.10	43.12	J-1010
J-421	true	true	1,500.00	3,000.00	1,504.80	3,004.80	39.97	43.54	J-2470
J-422	true	true	1,500.00	3,000.00	1,506.40	3,006.40	42.26	43.55	J-423
J-423	true	true	1,500.00	3,000.00	1,505.60	3,005.60	39.01	43.60	J-1010
J-424	true	true	1,500.00	3,000.00	1,503.20	3,003.20	39.09	40.55	J-392
J-425	true	true	1,000.00	3,000.00	1,007.30	3,007.30	43.09	41.83	J-2470
J-426	true	true	2,500.00	3,000.00	2,500.00	3,000.00	37.31	41.05	J-427
J-427	true	true	2,500.00	3,000.00	2,513.64	3,013.64	37.23	39.19	J-428
J-428	true	true	1,000.00	3,000.00	1,005.06	3,005.06	38.05	38.99	J-427
J-429	true	true	1,000.00	3,000.00	1,005.06	3,005.06	40.70	41.20	J-2470
J-430	true	true	1,000.00	3,000.00	1,015.20	3,015.20	39.31	41.80	J-480
J-431	true	true	2,500.00	3,000.00	2,500.00	3,000.00	40.14	41.06	J-2470
J-433	true	true	2,500.00	3,000.00	2,500.00	3,000.00	40.72	40.43	J-407
J-434	true	true	1,000.00	3,000.00	1,000.00	3,000.00	41.94	39.78	J-407
J-435	true	true	1,000.00	3,000.00	1,014.40	3,014.40	39.58	42.19	J-435A
J-435A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	37.01	42.46	J-435
J-436	true	true	2,500.00	3,000.00	2,528.74	3,028.74	38.24	41.25	J-2470
J-437	true	true	2,500.00	3,000.00	2,507.30	3,007.30	39.08	41.30	J-2470
J-438	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.13	40.86	J-2470
J-439	true	true	1,500.00	3,000.00	1,500.00	3,000.00	33.02	36.74	J-392
J-440	true	true	1,000.00	3,000.00	1,019.20	3,019.20	49.53	43.08	J-1010
J-441	true	true	1,500.00	3,000.00	1,500.00	3,000.00	35.12	43.29	J-1010
J-442	true	true	1,500.00	3,000.00	1,500.00	3,000.00	40.00	41.91	J-441
J-450	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.47	43.06	J-1010
J-450A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.40	43.06	J-1010
J-470	true	true	1,000.00	3,000.00	1,006.40	3,006.40	37.08	38.44	J-485
J-475	true	true	1,000.00	3,000.00	1,015.00	3,015.00	30.42	37.87	J-480
J-480	true	true	1,000.00	3,000.00	1,000.00	3,000.00	35.00	37.71	J-485
J-485	true	true	1,000.00	3,000.00	1,009.60	3,009.60	23.89	37.94	J-480
J-490	true	true	1,000.00	3,000.00	1,000.00	3,000.00	35.31	34.59	J-360
J-500	true	true	1,000.00	3,000.00	1,011.20	3,011.20	46.31	43.28	J-1010
J-510	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.33	43.25	J-1010
J-520	true	true	1,000.00	3,000.00	1,000.00	3,000.00	42.82	42.82	J-520A
J-520A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.48	42.82	J-520
J-530	true	true	1,000.00	3,000.00	1,024.80	3,024.80	38.98	43.29	J-1010
J-540	true	true	1,000.00	3,000.00	1,000.00	3,000.00	40.84	41.32	J-550
J-550	true	true	1,000.00	1,813.55	1,000.00	1,813.55	20.01	40.45	J-560

Scenario: Maximum Day, 60 psig at Hydro Tank
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-560	true	true	1,000.00	2,834.71	1,032.80	2,867.51	20.54	20.00	J-550
J-570	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.24	43.30	J-1010
J-580	true	true	1,000.00	3,000.00	1,026.40	3,026.40	39.76	43.29	J-1010
J-590	true	true	1,000.00	3,000.00	1,000.00	3,000.00	40.95	43.29	J-1010
J-600	true	true	1,000.00	1,653.39	1,000.00	1,653.39	20.00	40.39	J-610
J-610	true	true	1,000.00	2,608.43	1,010.40	2,618.83	20.52	20.00	J-600
J-620	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.99	43.01	J-1010
J-630	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.37	42.96	J-1010
J-635	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.47	42.94	J-1010
J-640	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.92	43.01	J-1010
J-650	true	true	1,000.00	1,986.66	1,000.00	1,986.66	20.00	43.68	J-1010
J-660	true	true	1,000.00	3,000.00	1,000.00	3,000.00	41.52	41.02	J-670
J-670	true	true	1,000.00	1,738.05	1,000.00	1,738.05	20.01	43.84	J-1010
J-680	true	true	1,000.00	3,000.00	1,039.20	3,039.20	40.62	42.59	J-365A
J-700	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.73	43.07	J-1010
J-710	true	true	1,000.00	2,237.31	1,000.00	2,237.31	20.00	43.57	J-1010
J-720	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.23	43.13	J-1010
J-730	true	true	1,000.00	3,000.00	1,000.00	3,000.00	42.67	43.13	J-1010
J-740	true	true	1,000.00	3,000.00	1,000.00	3,000.00	32.63	43.11	J-1010
J-750	true	true	1,000.00	3,000.00	1,000.00	3,000.00	39.92	42.80	J-750A
J-750A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	32.89	37.15	J-365A
J-760	true	true	1,000.00	3,000.00	1,038.40	3,038.40	45.09	43.11	J-1010
J-770	true	true	1,000.00	3,000.00	1,033.60	3,033.60	46.11	43.05	J-1010
J-780	true	true	1,000.00	3,000.00	1,000.00	3,000.00	44.17	43.01	J-1010
J-785	true	true	1,000.00	2,925.23	1,024.00	2,949.23	20.00	43.04	J-1010
J-790	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.58	42.98	J-1010
J-800	true	true	1,000.00	2,231.52	1,000.00	2,231.52	20.00	43.51	J-1010
J-810	true	true	1,000.00	3,000.00	1,024.80	3,024.80	40.59	40.70	J-800
J-820	true	true	1,000.00	2,011.79	1,000.00	2,011.79	20.00	43.64	J-1010
J-830	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.32	42.97	J-1010
J-840	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.09	42.92	J-1010
J-845	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.84	42.93	J-1010
J-850	true	true	1,000.00	3,000.00	1,000.00	3,000.00	39.53	42.84	J-960
J-860	true	true	1,000.00	3,000.00	1,041.60	3,041.60	32.41	34.64	J-960
J-870	true	true	1,000.00	3,000.00	1,003.20	3,003.20	33.31	33.87	J-945
J-880	true	true	1,000.00	3,000.00	1,004.80	3,004.80	43.70	42.96	J-1010
J-890	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.11	42.97	J-1010
J-900	true	true	1,000.00	2,521.07	1,000.00	2,521.07	20.00	43.30	J-1010
J-910	true	true	1,000.00	3,000.00	1,009.60	3,009.60	39.95	39.67	J-920
J-920	true	true	1,000.00	2,051.35	1,000.00	2,051.35	20.00	43.60	J-1010
J-930	true	true	1,000.00	3,000.00	1,016.80	3,016.80	29.82	32.26	J-945
J-935	true	true	1,000.00	3,000.00	1,008.00	3,008.00	29.40	32.54	J-930
J-940	true	true	1,000.00	1,846.52	1,000.00	1,846.52	20.00	38.06	J-960
J-945	true	true	1,000.00	2,296.93	1,015.20	2,312.13	20.00	43.44	J-930
J-950	true	true	1,000.00	2,742.42	1,011.20	2,753.62	20.00	20.13	J-970
J-960	true	true	1,000.00	2,559.94	1,022.40	2,582.34	20.00	20.83	J-940
J-970	true	true	1,000.00	1,927.18	1,000.00	1,927.18	20.00	40.20	J-950
J-980	true	true	1,000.00	3,000.00	1,000.00	3,000.00	54.39	44.16	J-1010
J-990	true	true	1,000.00	3,000.00	1,000.00	3,000.00	52.54	41.37	J-1010
J-1000	true	true	1,500.00	2,000.00	1,688.00	2,188.00	31.91	41.89	J-1010

Scenario: Maximum Day, 60 psig at Hydro Tank
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-1010	true	true	1,000.00	3,000.00	1,000.00	3,000.00	35.91	43.82	J-2470
J-1020	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.39	41.02	J-1010
J-1030	true	true	1,500.00	2,000.00	1,579.20	2,079.20	52.21	42.63	J-1010
J-1070	true	true	1,500.00	2,000.00	1,500.00	2,000.00	51.74	42.51	J-1010
J-1080	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.56	41.42	J-1010
J-1120	true	true	1,000.00	3,000.00	1,000.00	3,000.00	57.62	44.53	J-1010
J-1330	true	true	1,000.00	3,000.00	1,000.00	3,000.00	46.42	40.26	J-1010
J-1335	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.33	40.53	J-1010
J-1345	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.96	40.06	J-1010
J-1370	true	true	1,000.00	3,000.00	1,045.60	3,045.60	45.47	38.48	J-1010
J-1380	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.26	39.29	J-1010
J-1385	true	true	1,000.00	3,000.00	1,008.80	3,008.80	39.87	39.48	J-1415
J-1390	true	true	1,000.00	3,000.00	1,000.00	3,000.00	41.05	39.83	J-1010
J-1395	true	true	1,000.00	3,000.00	1,011.20	3,011.20	41.44	40.04	J-1010
J-1405	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.82	39.62	J-1010
J-1410	true	true	1,000.00	2,994.68	1,000.00	2,994.68	20.00	40.05	J-1010
J-1415	true	true	1,000.00	1,711.52	1,000.00	1,711.52	20.00	42.56	J-1010
J-1420	true	true	1,000.00	3,000.00	1,008.00	3,008.00	32.31	32.53	J-1435
J-1425	true	true	1,000.00	3,000.00	1,008.80	3,008.80	30.42	30.38	J-1440
J-1430	true	true	1,500.00	2,000.00	1,512.80	2,012.80	43.54	41.93	J-1010
J-1435	true	true	1,000.00	1,833.95	1,000.00	1,833.95	20.01	42.34	J-1010
J-1440	true	true	1,000.00	1,800.45	1,000.00	1,800.45	20.00	42.37	J-1010
J-1445	true	true	1,000.00	1,820.15	1,000.00	1,820.15	20.00	42.29	J-1010
J-1450	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.66	39.46	J-1010
J-1455	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.40	38.47	J-1445
J-1460	true	true	1,000.00	3,000.00	1,021.60	3,021.60	33.69	39.44	J-1010
J-1465	true	true	1,000.00	3,000.00	1,012.80	3,012.80	40.82	39.42	J-1010
J-1475	true	true	1,000.00	3,000.00	1,017.60	3,017.60	42.63	39.43	J-1010
J-1490	true	true	1,000.00	3,000.00	1,000.00	3,000.00	44.15	40.48	J-1010
J-1495	true	true	1,000.00	3,000.00	1,004.80	3,004.80	48.10	41.28	J-1010
J-1500	true	true	1,000.00	3,000.00	1,009.60	3,009.60	45.82	40.46	J-1010
J-1505	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.70	40.29	J-1010
J-1510	true	true	1,000.00	3,000.00	1,008.80	3,008.80	43.13	40.20	J-1010
J-1515	true	true	1,000.00	2,826.98	1,000.00	2,826.98	20.00	34.48	J-1520
J-1520	true	true	1,000.00	2,829.39	1,000.00	2,829.39	20.00	34.42	J-1515
J-1525	true	true	1,000.00	3,000.00	1,008.80	3,008.80	43.53	39.94	J-1010
J-1530	true	true	1,000.00	3,000.00	1,009.60	3,009.60	45.24	40.95	J-1010
J-1535	true	true	1,000.00	1,913.99	1,000.00	1,913.99	20.00	42.68	J-1010
J-2000	true	true	1,000.00	3,000.00	1,000.00	3,000.00	40.02	38.79	J-2470
J-2005	true	true	1,000.00	3,000.00	1,029.80	3,029.80	43.35	41.01	J-2060
J-2010	true	true	1,000.00	2,792.59	1,039.20	2,831.79	20.00	20.69	J-2090
J-2020	true	true	1,000.00	2,708.40	1,016.00	2,724.40	20.00	20.25	J-2100
J-2030	true	true	1,000.00	2,682.01	1,010.40	2,692.41	20.00	22.31	J-2100
J-2040	true	true	1,000.00	2,742.77	1,008.80	2,751.57	20.00	20.39	J-2050
J-2050	true	true	1,000.00	1,795.56	1,000.00	1,795.56	20.01	35.56	J-2040
J-2060	true	true	1,000.00	3,000.00	1,007.20	3,007.20	22.50	27.28	J-2040
J-2070	true	true	1,000.00	2,405.90	1,000.00	2,405.90	20.57	20.00	J-2100
J-2080	true	true	1,000.00	2,148.76	1,000.00	2,148.76	20.78	20.00	J-2100
J-2090	true	true	1,000.00	1,884.26	1,000.00	1,884.26	20.00	32.16	J-2100
J-2100	true	true	1,000.00	1,784.88	1,009.60	1,794.48	20.01	28.93	J-2080

Scenario: Maximum Day, 60 psig at Hydro Tank
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-2110	true	true	1,000.00	3,000.00	1,016.00	3,016.00	26.61	27.25	J-2130
J-2120	true	true	1,000.00	1,528.58	1,014.40	1,542.98	20.77	20.00	J-2130
J-2130	true	true	1,000.00	1,046.08	1,006.40	1,052.48	20.00	34.45	J-2120
J-2140	true	true	1,000.00	1,521.45	1,008.80	1,530.26	20.74	20.00	J-2150
J-2150	true	true	1,000.00	1,112.46	1,000.00	1,112.46	20.00	32.70	J-2140
J-2160	true	true	1,000.00	1,588.29	1,014.40	1,602.69	20.77	20.00	J-2170
J-2170	true	true	1,000.00	1,136.16	1,000.00	1,136.16	20.00	33.34	J-2160
J-2180	true	true	1,000.00	2,414.42	1,022.32	2,436.74	28.49	20.00	J-2470
J-2190	true	true	1,000.00	3,000.00	1,000.00	3,000.00	46.39	40.10	J-2470
J-2200	true	true	1,000.00	3,000.00	1,000.00	3,000.00	29.63	23.93	J-2470
J-2210	true	true	1,000.00	2,098.82	1,000.00	2,098.82	24.77	20.00	J-2470
J-2220	true	true	1,000.00	1,883.97	1,000.00	1,883.97	24.11	20.00	J-2470
J-2230	true	true	1,000.00	1,690.87	1,000.00	1,690.87	23.02	20.00	J-2470
J-2240	true	true	1,000.00	1,566.54	1,000.00	1,566.54	20.12	20.00	J-2500
J-2250	true	true	1,000.00	1,497.78	1,015.20	1,512.98	20.00	20.42	J-2500
J-2260	true	true	1,000.00	2,243.33	1,014.40	2,257.73	22.13	20.00	J-2470
J-2270	true	true	1,000.00	1,561.17	1,000.00	1,561.17	20.00	31.05	J-2470
J-2280	true	true	1,000.00	2,173.60	1,000.00	2,173.60	22.06	20.00	J-2470
J-2290	true	true	1,000.00	2,095.87	1,000.00	2,095.87	20.00	20.76	J-2470
J-2300	true	true	1,000.00	2,081.03	1,000.00	2,081.03	20.00	20.67	J-2470
J-2310	true	true	1,000.00	2,026.60	1,014.40	2,041.00	20.00	20.32	J-2320
J-2320	true	true	1,000.00	1,583.32	1,000.00	1,583.32	20.00	28.77	J-2470
J-2330	true	true	1,000.00	2,023.71	1,000.00	2,023.71	20.00	20.38	J-2470
J-2340	true	true	1,000.00	1,728.38	1,025.60	1,753.98	20.00	26.72	J-2470
J-2350	true	true	1,000.00	1,946.80	1,018.40	1,965.20	20.00	20.04	J-2470
J-2360	true	true	1,000.00	1,872.53	1,000.00	1,872.53	23.18	20.00	J-2470
J-2370	true	true	1,000.00	1,785.97	1,029.60	1,815.57	20.26	20.00	J-2470
J-2380	true	true	1,000.00	1,687.39	1,020.00	1,707.39	22.32	20.00	J-2470
J-2400	true	true	1,000.00	1,545.37	1,015.20	1,560.57	20.00	23.04	J-2470
J-2410	true	true	1,000.00	1,638.34	1,019.20	1,657.54	20.00	20.42	J-2470
J-2420	true	true	1,000.00	1,675.71	1,000.00	1,675.71	22.00	20.00	J-2470
J-2430	true	true	1,000.00	1,585.04	1,020.00	1,605.04	20.18	20.00	J-2440
J-2440	true	true	1,000.00	1,361.98	1,000.00	1,361.98	20.00	26.10	J-2430
J-2450	true	true	1,000.00	1,582.43	1,020.00	1,602.43	21.06	20.00	J-2470
J-2460	true	true	1,000.00	1,516.79	1,021.60	1,538.39	20.25	20.00	J-2470
J-2470	true	true	1,000.00	1,189.92	1,017.60	1,207.52	20.01	28.27	J-2480
J-2480	true	true	1,000.00	1,477.17	1,000.00	1,477.17	20.00	20.23	J-2470
J-2490	true	true	1,000.00	1,467.55	1,020.00	1,487.55	20.00	20.48	J-2500
J-2500	true	true	1,000.00	1,214.54	1,020.00	1,234.54	20.01	27.36	J-2490
J-2510	true	true	1,000.00	1,477.53	1,000.00	1,477.53	20.00	20.09	J-2500
J-2520	true	true	1,000.00	1,487.60	1,000.00	1,487.60	20.00	20.19	J-2500
J-2530	true	true	1,000.00	1,370.34	1,012.00	1,382.34	20.00	20.11	J-2540
J-2540	true	true	1,000.00	1,103.67	1,000.00	1,103.67	20.00	28.02	J-2530
J-2560	true	true	1,000.00	1,539.91	1,000.00	1,539.91	20.85	20.00	J-2500
J-3000	true	true	1,000.00	3,000.00	1,000.00	3,000.00	61.91	44.68	J-1010
J-3010	true	true	1,000.00	3,000.00	1,000.00	3,000.00	56.74	42.74	J-1010
J-3030	true	true	1,000.00	3,000.00	1,000.00	3,000.00	58.47	43.11	J-1010
J-3040	true	true	1,000.00	3,000.00	1,000.00	3,000.00	30.30	42.25	J-1010
J-3050	true	true	1,000.00	3,000.00	1,034.40	3,034.40	53.48	42.14	J-1010
J-3060	true	true	1,000.00	3,000.00	1,000.00	3,000.00	27.39	42.12	J-1010

Scenario: Maximum Day, 60 psig at Hydro Tank
Fire Flow Analysis
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J-3080	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.92	42.12	J-1010
J-3090	true	true	1,000.00	3,000.00	1,024.80	3,024.80	43.83	42.14	J-1010
J-3095	true	true	1,000.00	3,000.00	1,000.00	3,000.00	40.03	42.15	J-1010
J-3100	true	true	1,000.00	3,000.00	1,000.00	3,000.00	46.04	42.17	J-1010
J-3110	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.40	42.25	J-1010
J-3120	true	true	1,000.00	3,000.00	1,000.00	3,000.00	54.66	42.30	J-1010
J-3130	true	true	1,000.00	3,000.00	1,020.00	3,020.00	27.21	32.93	J-3290
J-3140	true	true	1,000.00	3,000.00	1,000.00	3,000.00	37.44	37.86	J-3320
J-3150	true	true	1,000.00	2,351.18	1,000.00	2,351.18	20.00	20.57	J-3170
J-3160	true	true	1,000.00	3,000.00	1,000.00	3,000.00	37.85	38.52	J-3150
J-3170	true	true	1,000.00	2,118.00	1,000.00	2,118.00	20.00	25.89	J-3190
J-3180	true	true	1,000.00	2,064.00	1,000.00	2,064.00	20.00	25.26	J-3190
J-3190	true	true	1,000.00	2,216.73	1,032.00	2,248.73	20.00	20.43	J-3180
J-3200	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.93	43.22	J-1010
J-3210	true	true	1,000.00	3,000.00	1,000.00	3,000.00	46.37	43.30	J-1010
J-3220	true	true	1,000.00	3,000.00	1,032.00	3,032.00	37.16	41.31	J-3225
J-3225	true	true	1,000.00	3,000.00	1,031.20	3,031.20	34.68	41.71	J-3220
J-3230	true	true	1,000.00	3,000.00	1,000.00	3,000.00	44.76	43.40	J-1010
J-3240	true	true	1,000.00	3,000.00	1,000.00	3,000.00	34.50	40.35	J-3245
J-3245	true	true	1,000.00	3,000.00	1,037.60	3,037.60	30.45	40.86	J-3240
J-3250	true	true	1,000.00	3,000.00	1,000.00	3,000.00	42.72	43.33	J-1010
J-3260	true	true	1,000.00	3,000.00	1,000.00	3,000.00	41.17	41.76	J-3240
J-3265	true	true	1,000.00	2,487.59	1,035.20	2,522.79	20.00	43.60	J-1010
J-3270	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.66	43.52	J-1010
J-3275	true	true	1,000.00	3,000.00	1,000.00	3,000.00	38.20	39.43	J-351
J-3280	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.46	37.41	J-3285
J-3285	true	true	1,000.00	3,000.00	1,024.80	3,024.80	27.77	38.05	J-3280
J-3290	true	true	1,000.00	3,000.00	1,000.00	3,000.00	30.52	32.95	J-3130
J-3300	true	true	1,000.00	3,000.00	1,000.00	3,000.00	33.66	35.19	J-3400
J-3310	true	true	1,000.00	3,000.00	1,027.12	3,027.12	32.89	35.44	J-3410
J-3320	true	true	1,000.00	3,000.00	1,000.00	3,000.00	33.98	36.78	J-3410
J-3330	true	true	1,000.00	3,000.00	1,000.00	3,000.00	35.42	42.12	J-1010
J-3340	true	true	1,000.00	3,000.00	1,000.00	3,000.00	46.64	42.12	J-1010
J-3350	true	true	1,000.00	3,000.00	1,039.20	3,039.20	39.62	39.02	J-3360
J-3360	true	true	1,000.00	3,000.00	1,000.00	3,000.00	22.15	39.62	J-3350
J-3370	true	true	1,000.00	3,000.00	1,045.76	3,045.76	54.74	42.80	J-1010
J-3380	true	true	1,000.00	3,000.00	1,027.00	3,027.00	41.80	42.80	J-1010
J-3390	true	true	1,000.00	3,000.00	1,018.00	3,018.00	37.53	42.80	J-1010
J-3400	true	true	1,000.00	2,781.48	1,012.80	2,794.28	20.00	38.01	J-3290
J-3410	true	true	1,000.00	2,619.30	1,017.60	2,636.90	20.00	42.35	J-3310
J-3420	true	true	1,000.00	3,000.00	1,000.00	3,000.00	60.47	44.26	J-1010
J-5000	true	true	1,500.00	2,000.00	1,500.00	2,000.00	48.44	43.00	J-2470
J-5001	true	true	1,500.00	2,000.00	1,504.80	2,004.80	48.68	44.02	J-1010

MAXIMUM DAY, PEAK HOUR,
AND MAXIMUM DAY PLUS FIRE FLOW DEMANDS
WITH NO CONNECTION ON SOUTH SIDE (P-484)
OF EAST BOOSTER PUMP STATION (POE2)

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1	45.00	Demand	0.00	Fixed	0.00	196.50	65.55
J-2	38.00	Demand	0.00	Fixed	0.00	196.17	68.43
J-3	37.00	Demand	0.00	Fixed	0.00	196.15	68.86
J-5	43.00	Demand	0.00	Fixed	0.00	196.18	66.28
J-6	43.00	Demand	0.00	Fixed	0.00	196.43	66.38
J-7	43.00	Demand	6.00	Fixed	12.00	196.18	66.27
J-8	47.00	Demand	6.00	Fixed	12.00	196.17	64.54
J-9	47.00	Demand	4.40	Fixed	8.80	196.17	64.54
J-10	63.34	Demand	0.00	Fixed	0.00	198.00	58.26
J-11	45.20	Demand	0.00	Fixed	0.00	196.17	65.32
J-12	44.00	Demand	0.00	Fixed	0.00	196.17	65.83
J-13	46.00	Demand	5.20	Fixed	10.40	196.16	64.97
J-14	45.00	Demand	5.20	Fixed	10.40	196.16	65.40
J-15	40.00	Demand	0.00	Fixed	0.00	196.17	67.57
J-16	40.00	Demand	5.60	Fixed	11.20	196.17	67.57
J-17	40.00	Demand	7.20	Fixed	14.40	196.17	67.57
J-18	37.00	Demand	0.00	Fixed	0.00	196.11	68.84
J-19	38.00	Demand	23.44	Fixed	46.88	196.06	68.39
J-20	50.91	Demand	17.19	Fixed	34.38	196.74	63.10
J-21	37.00	Demand	0.00	Fixed	0.00	196.05	68.82
J-22	37.00	Demand	0.00	Fixed	0.00	196.04	68.81
J-23	40.00	Demand	25.00	Fixed	50.00	196.04	67.51
J-24	37.00	Demand	0.00	Fixed	0.00	196.04	68.81
J-25	37.00	Demand	0.00	Fixed	0.00	196.04	68.81
J-26	37.00	Demand	0.00	Fixed	0.00	196.04	68.81
J-27	39.00	Demand	9.06	Fixed	18.12	196.04	67.94
J-28	39.00	Demand	0.00	Fixed	0.00	196.04	67.94
J-29	39.00	Demand	14.06	Fixed	28.12	196.04	67.94
J-30	66.90	Demand	0.00	Fixed	0.00	197.86	56.66
J-31	40.00	Demand	0.00	Fixed	0.00	196.05	67.52
J-32	40.00	Demand	0.00	Fixed	0.00	196.05	67.52
J-33	45.00	Demand	19.06	Fixed	38.12	196.06	65.36
J-34	40.00	Demand	0.00	Fixed	0.00	196.09	67.53
J-35	40.00	Demand	10.31	Fixed	20.62	196.05	67.52
J-36	40.00	Demand	0.00	Fixed	0.00	196.06	67.52
J-37	38.00	Demand	9.06	Fixed	18.12	196.07	68.39
J-39	43.00	Demand	15.63	Fixed	31.26	196.42	66.38
J-40	70.52	Demand	0.00	Fixed	0.00	197.86	55.09
J-40A	70.00	Demand	0.00	Fixed	0.00	197.86	55.32
J-41	47.00	Demand	5.00	Fixed	10.00	196.41	64.64
J-42	43.00	Demand	0.00	Fixed	0.00	196.46	66.39
J-43	50.00	Demand	5.00	Fixed	10.00	196.49	63.38
J-44	47.00	Demand	10.00	Fixed	20.00	196.48	64.67
J-45	50.00	Demand	0.00	Fixed	0.00	196.46	63.37
J-46	50.00	Demand	10.63	Fixed	21.26	196.44	63.36
J-47	49.00	Demand	0.00	Fixed	0.00	196.43	63.78
J-48	49.00	Demand	13.75	Fixed	27.50	196.41	63.78
J-50	70.72	Demand	9.00	Fixed	18.00	198.05	55.09
J-52	47.00	Demand	17.50	Fixed	35.00	196.41	64.64
J-55	56.31	Demand	0.00	Fixed	0.00	197.90	61.26
J-60	78.00	Demand	0.00	Fixed	0.00	197.90	51.87
J-65	79.06	Demand	4.00	Fixed	8.00	197.96	51.44

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-70	72.52	Demand	0.00	Fixed	0.00	197.95	54.27
J-75	74.14	Demand	4.00	Fixed	8.00	198.11	53.64
J-80	74.00	Demand	0.00	Fixed	0.00	197.93	53.62
J-90	72.14	Demand	19.20	Fixed	38.40	197.87	54.40
J-100	71.87	Demand	0.00	Fixed	0.00	197.86	54.51
J-110	72.60	Demand	21.60	Fixed	43.20	197.85	54.19
J-120	74.07	Demand	0.00	Fixed	0.00	197.93	53.59
J-130	75.25	Demand	15.60	Fixed	31.20	197.93	53.08
J-130A	74.00	Demand	0.00	Fixed	0.00	197.93	53.62
J-140	75.56	Demand	0.00	Fixed	0.00	197.93	52.94
J-150	75.14	Demand	0.00	Fixed	0.00	197.94	53.13
J-160	76.01	Demand	0.00	Fixed	0.00	197.94	52.75
J-170	74.37	Demand	0.00	Fixed	0.00	197.95	53.47
J-180	68.38	Demand	0.00	Fixed	0.00	198.39	56.25
J-190	69.42	Demand	0.00	Fixed	0.00	198.34	55.78
J-200	70.84	Demand	14.40	Fixed	28.80	198.60	55.27
J-210	70.31	Demand	0.00	Fixed	0.00	198.52	55.47
J-220	72.57	Demand	0.00	Fixed	0.00	198.37	54.43
J-230	72.90	Demand	0.00	Fixed	0.00	198.27	54.24
J-240	74.23	Demand	16.80	Fixed	33.60	198.26	53.66
J-250	71.50	Demand	16.00	Fixed	32.00	198.27	54.85
J-260	70.38	Demand	0.00	Fixed	0.00	198.27	55.33
J-270	72.61	Demand	0.00	Fixed	0.00	198.27	54.37
J-280	74.73	Demand	9.60	Fixed	19.20	198.00	53.33
J-290	75.43	Demand	0.00	Fixed	0.00	198.00	53.03
J-296	49.00	Demand	0.00	Fixed	0.00	196.41	63.78
J-298	49.00	Demand	0.00	Fixed	0.00	196.41	63.78
J-300	64.72	Demand	0.00	Fixed	0.00	197.45	57.43
J-302	43.00	Demand	0.00	Fixed	0.00	196.43	66.38
J-306	43.00	Demand	0.00	Fixed	0.00	196.21	66.29
J-310	64.12	Demand	8.80	Fixed	17.60	197.45	57.69
J-320	68.92	Demand	4.00	Fixed	8.00	197.72	55.73
J-330	67.86	Demand	12.00	Fixed	24.00	197.52	56.10
J-335	66.84	Demand	5.60	Fixed	11.20	197.51	56.53
J-340	65.40	Demand	0.00	Fixed	0.00	197.51	57.16
J-344	65.00	Demand	0.00	Fixed	0.00	199.04	57.99
J-345	58.00	Demand	0.00	Fixed	0.00	201.29	61.99
J-346	81.00	Demand	0.00	Fixed	0.00	275.00	83.93
J-347	80.00	Demand	0.00	Fixed	0.00	197.72	50.93
J-348	80.00	Demand	0.00	Fixed	0.00	197.72	50.93
J-349	48.00	Demand	2.49	Fixed	4.98	198.20	64.98
J-350	63.00	Demand	3.60	Fixed	7.20	197.45	58.17
J-351	49.00	Demand	2.49	Fixed	4.98	198.20	64.55
J-352	52.00	Demand	2.49	Fixed	4.98	198.35	63.32
J-353	53.20	Demand	2.49	Fixed	4.98	198.26	62.76
J-354	49.75	Demand	2.49	Fixed	4.98	198.23	64.24
J-355	61.46	Demand	0.00	Fixed	0.00	197.45	58.84
J-356	49.50	Demand	2.49	Fixed	4.98	198.23	64.35
J-357	48.50	Demand	2.49	Fixed	4.98	198.21	64.77
J-358	53.50	Demand	2.49	Fixed	4.98	198.36	62.68
J-359	52.00	Demand	2.49	Fixed	4.98	198.29	63.29
J-360	61.63	Demand	11.20	Fixed	22.40	197.08	58.60

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-360A	61.00	Demand	0.00	Fixed	0.00	197.08	58.88
J-361	55.00	Demand	2.49	Fixed	4.98	198.29	61.99
J-362	54.00	Demand	2.49	Fixed	4.98	198.29	62.43
J-363	54.50	Demand	2.49	Fixed	4.98	198.29	62.21
J-364	56.00	Demand	2.49	Fixed	4.98	198.29	61.56
J-365	58.65	Demand	11.50	Fixed	23.00	197.08	59.89
J-365A	58.00	Demand	0.00	Fixed	0.00	196.92	60.11
J-366	56.00	Demand	2.49	Fixed	4.98	198.31	61.57
J-367	57.00	Demand	2.49	Fixed	4.98	198.30	61.13
J-368	53.00	Demand	2.49	Fixed	4.98	198.29	62.86
J-369	52.50	Demand	2.49	Fixed	4.98	198.26	63.06
J-370	66.22	Demand	9.70	Fixed	19.40	197.47	56.78
J-371	50.00	Demand	2.49	Fixed	4.98	198.23	64.13
J-372	48.50	Demand	2.49	Fixed	4.98	198.20	64.77
J-373	51.50	Demand	2.49	Fixed	4.98	198.26	63.50
J-374	50.50	Demand	2.49	Fixed	4.98	198.23	63.92
J-375	50.00	Demand	2.49	Fixed	4.98	198.21	64.12
J-376	49.50	Demand	2.49	Fixed	4.98	198.21	64.34
J-377	48.70	Demand	2.49	Fixed	4.98	198.21	64.69
J-378	49.00	Demand	2.49	Fixed	4.98	198.21	64.56
J-379	48.70	Demand	2.49	Fixed	4.98	198.21	64.69
J-380	66.43	Demand	0.00	Fixed	0.00	197.92	56.89
J-381	41.70	Demand	8.00	Fixed	16.00	196.49	66.97
J-382	38.30	Demand	8.00	Fixed	16.00	196.48	68.44
J-383	33.00	Demand	8.00	Fixed	16.00	196.48	70.73
J-384	41.70	Demand	0.00	Fixed	0.00	275.00	100.94
J-385	65.00	Demand	3.20	Fixed	6.40	197.56	57.35
J-386	66.00	Demand	3.60	Fixed	7.20	197.61	56.94
J-387	66.00	Demand	5.20	Fixed	10.40	197.66	56.96
J-388	74.10	Demand	0.00	Fixed	0.00	198.99	54.03
J-389	74.20	Demand	2.00	Fixed	4.00	197.86	53.50
J-390	64.79	Demand	5.20	Fixed	10.40	197.46	57.40
J-392	64.00	Demand	1.20	Fixed	2.40	197.46	57.74
J-394	66.00	Demand	2.40	Fixed	4.80	197.65	56.96
J-395	67.20	Demand	1.20	Fixed	2.40	197.66	56.44
J-396	73.00	Demand	22.99	Fixed	45.98	197.68	53.95
J-397	75.70	Demand	3.20	Fixed	6.40	198.17	52.99
J-398	77.00	Demand	0.00	Fixed	0.00	198.12	52.40
J-399	77.00	Demand	0.00	Fixed	0.00	197.89	52.30
J-400	63.46	Demand	3.20	Fixed	6.40	197.45	57.97
J-401	77.00	Demand	2.40	Fixed	4.80	198.16	52.42
J-402	75.00	Demand	4.00	Fixed	8.00	198.36	53.37
J-403	67.00	Demand	1.60	Fixed	3.20	197.68	56.54
J-404	74.60	Demand	3.13	Fixed	6.26	197.70	53.26
J-405	76.20	Demand	3.29	Fixed	6.58	197.71	52.57
J-406	41.70	Demand	0.00	Fixed	0.00	275.00	100.94
J-407	81.00	Demand	0.00	Fixed	0.00	197.72	50.50
J-408	73.00	Demand	3.20	Fixed	6.40	198.24	54.18
J-409	73.00	Demand	2.00	Fixed	4.00	198.66	54.37
J-410	63.00	Demand	4.40	Fixed	8.80	197.45	58.17
J-411	73.00	Demand	2.80	Fixed	5.60	198.24	54.18
J-412	71.00	Demand	0.00	Fixed	0.00	198.09	54.98

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-413	76.00	Demand	6.08	Fixed	12.16	197.74	52.67
J-414	67.00	Demand	2.40	Fixed	4.80	197.76	56.57
J-415	73.00	Demand	3.60	Fixed	7.20	197.69	53.95
J-416	68.00	Demand	4.00	Fixed	8.00	197.69	56.11
J-417	67.00	Demand	1.60	Fixed	3.20	197.70	56.55
J-418	67.00	Demand	1.60	Fixed	3.20	197.66	56.53
J-419	67.00	Demand	3.20	Fixed	6.40	197.64	56.52
J-420	63.00	Demand	0.00	Fixed	0.00	197.38	58.14
J-421	66.00	Demand	2.40	Fixed	4.80	197.64	56.96
J-422	64.00	Demand	3.20	Fixed	6.40	197.61	57.81
J-423	65.00	Demand	2.80	Fixed	5.60	197.61	57.37
J-424	64.00	Demand	1.60	Fixed	3.20	197.53	57.77
J-425	73.00	Demand	3.65	Fixed	7.30	197.69	53.95
J-426	72.00	Demand	0.00	Fixed	0.00	197.69	54.38
J-427	72.00	Demand	6.82	Fixed	13.64	197.69	54.38
J-428	72.00	Demand	2.53	Fixed	5.06	197.69	54.38
J-429	74.00	Demand	2.53	Fixed	5.06	197.70	53.52
J-430	60.90	Demand	7.60	Fixed	15.20	196.99	58.88
J-431	75.00	Demand	0.00	Fixed	0.00	197.71	53.09
J-433	76.00	Demand	0.00	Fixed	0.00	197.72	52.66
J-434	76.00	Demand	0.00	Fixed	0.00	197.72	52.66
J-435	61.60	Demand	7.20	Fixed	14.40	197.06	58.61
J-435A	61.00	Demand	0.00	Fixed	0.00	197.03	58.85
J-436	74.00	Demand	14.37	Fixed	28.74	197.70	53.52
J-437	74.00	Demand	3.65	Fixed	7.30	197.70	53.52
J-438	76.00	Demand	0.00	Fixed	0.00	197.73	52.67
J-439	64.00	Demand	0.00	Fixed	0.00	197.42	57.72
J-440	60.59	Demand	9.60	Fixed	19.20	197.10	59.06
J-441	56.00	Demand	0.00	Fixed	0.00	197.07	61.04
J-442	54.00	Demand	0.00	Fixed	0.00	196.98	61.86
J-450	59.29	Demand	0.00	Fixed	0.00	196.98	59.57
J-450A	59.00	Demand	0.00	Fixed	0.00	196.98	59.70
J-470	58.00	Demand	3.20	Fixed	6.40	196.98	60.13
J-475	57.16	Demand	7.50	Fixed	15.00	196.98	60.49
J-480	59.15	Demand	0.00	Fixed	0.00	196.98	59.63
J-485	58.66	Demand	4.80	Fixed	9.60	196.98	59.85
J-490	59.97	Demand	0.00	Fixed	0.00	197.09	59.32
J-500	63.34	Demand	5.60	Fixed	11.20	197.71	58.14
J-510	64.22	Demand	0.00	Fixed	0.00	197.70	57.75
J-520	63.00	Demand	0.00	Fixed	0.00	197.71	58.28
J-520A	63.00	Demand	0.00	Fixed	0.00	197.71	58.28
J-530	61.57	Demand	12.40	Fixed	24.80	197.72	58.91
J-540	64.71	Demand	0.00	Fixed	0.00	197.77	57.57
J-550	67.29	Demand	0.00	Fixed	0.00	197.76	56.45
J-560	66.05	Demand	16.40	Fixed	32.80	197.76	56.99
J-570	66.00	Demand	0.00	Fixed	0.00	197.82	57.03
J-580	64.21	Demand	13.20	Fixed	26.40	197.73	57.77
J-590	63.12	Demand	0.00	Fixed	0.00	197.74	58.24
J-600	69.08	Demand	0.00	Fixed	0.00	197.61	55.61
J-610	67.88	Demand	5.20	Fixed	10.40	197.61	56.13
J-620	55.00	Demand	0.00	Fixed	0.00	196.78	61.34
J-630	49.99	Demand	0.00	Fixed	0.00	196.62	63.44

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-635	48.00	Demand	0.00	Fixed	0.00	196.56	64.28
J-640	55.00	Demand	0.00	Fixed	0.00	196.78	61.34
J-650	56.23	Demand	0.00	Fixed	0.00	196.78	60.81
J-660	52.32	Demand	0.00	Fixed	0.00	196.77	62.50
J-670	53.48	Demand	0.00	Fixed	0.00	196.77	61.99
J-680	58.46	Demand	19.60	Fixed	39.20	196.93	59.91
J-700	58.75	Demand	0.00	Fixed	0.00	196.96	59.80
J-710	57.28	Demand	0.00	Fixed	0.00	196.96	60.43
J-720	54.01	Demand	0.00	Fixed	0.00	196.92	61.83
J-730	55.06	Demand	0.00	Fixed	0.00	196.89	61.36
J-740	57.00	Demand	0.00	Fixed	0.00	196.92	60.54
J-750	55.01	Demand	0.00	Fixed	0.00	196.92	61.40
J-750A	55.00	Demand	0.00	Fixed	0.00	196.92	61.40
J-760	51.15	Demand	19.20	Fixed	38.40	196.84	63.03
J-770	51.19	Demand	16.80	Fixed	33.60	196.77	62.98
J-780	47.22	Demand	0.00	Fixed	0.00	196.68	64.67
J-785	50.53	Demand	12.00	Fixed	24.00	196.65	63.22
J-790	49.86	Demand	0.00	Fixed	0.00	196.65	63.51
J-800	48.00	Demand	0.00	Fixed	0.00	196.64	64.31
J-810	48.24	Demand	12.40	Fixed	24.80	196.64	64.20
J-820	48.27	Demand	0.00	Fixed	0.00	196.62	64.19
J-830	49.28	Demand	0.00	Fixed	0.00	196.62	63.75
J-840	50.00	Demand	0.00	Fixed	0.00	196.56	63.41
J-845	48.00	Demand	0.00	Fixed	0.00	196.56	64.28
J-850	58.38	Demand	0.00	Fixed	0.00	196.55	59.78
J-860	53.78	Demand	20.80	Fixed	41.60	196.52	61.76
J-870	53.89	Demand	1.60	Fixed	3.20	196.55	61.72
J-880	51.19	Demand	2.40	Fixed	4.80	196.60	62.91
J-890	51.00	Demand	0.00	Fixed	0.00	196.63	63.01
J-900	49.92	Demand	0.00	Fixed	0.00	196.60	63.46
J-910	51.66	Demand	4.80	Fixed	9.60	196.58	62.70
J-920	52.29	Demand	0.00	Fixed	0.00	196.58	62.43
J-930	55.00	Demand	8.40	Fixed	16.80	196.53	61.23
J-935	55.00	Demand	4.00	Fixed	8.00	196.53	61.24
J-940	51.83	Demand	0.00	Fixed	0.00	196.51	62.60
J-945	55.86	Demand	7.60	Fixed	15.20	196.53	60.86
J-950	48.48	Demand	5.60	Fixed	11.20	196.53	64.05
J-960	53.74	Demand	11.20	Fixed	22.40	196.51	61.77
J-970	48.18	Demand	0.00	Fixed	0.00	196.53	64.18
J-980	70.85	Demand	0.00	Fixed	0.00	198.84	55.37
J-990	64.17	Demand	0.00	Fixed	0.00	197.89	57.85
J-1000	66.35	Demand	94.00	Fixed	188.00	197.41	56.70
J-1010	94.62	Demand	0.00	Fixed	0.00	197.84	44.66
J-1020	70.20	Demand	0.00	Fixed	0.00	197.86	55.23
J-1030	70.00	Demand	39.60	Fixed	79.20	197.85	55.32
J-1070	70.00	Demand	0.00	Fixed	0.00	197.86	55.32
J-1080	72.75	Demand	0.00	Fixed	0.00	197.86	54.13
J-1120	65.00	Demand	0.00	Fixed	0.00	198.99	57.97
J-1330	65.10	Demand	0.00	Fixed	0.00	197.88	57.45
J-1335	68.70	Demand	0.00	Fixed	0.00	197.86	55.88
J-1345	61.40	Demand	0.00	Fixed	0.00	197.92	59.07
J-1370	72.70	Demand	22.80	Fixed	45.60	197.85	54.15

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1380	72.80	Demand	0.00	Fixed	0.00	197.85	54.10
J-1385	73.00	Demand	4.40	Fixed	8.80	197.85	54.02
J-1390	74.00	Demand	0.00	Fixed	0.00	197.85	53.58
J-1395	74.50	Demand	5.60	Fixed	11.20	197.85	53.37
J-1405	72.60	Demand	0.00	Fixed	0.00	197.90	54.21
J-1410	75.40	Demand	0.00	Fixed	0.00	197.85	52.98
J-1415	73.90	Demand	0.00	Fixed	0.00	197.85	53.63
J-1420	72.70	Demand	4.00	Fixed	8.00	197.85	54.14
J-1425	72.10	Demand	4.40	Fixed	8.80	197.85	54.40
J-1430	72.00	Demand	6.40	Fixed	12.80	197.85	54.45
J-1435	72.20	Demand	0.00	Fixed	0.00	197.85	54.36
J-1440	72.20	Demand	0.00	Fixed	0.00	197.85	54.36
J-1445	72.20	Demand	0.00	Fixed	0.00	197.85	54.36
J-1450	72.80	Demand	0.00	Fixed	0.00	197.86	54.11
J-1455	72.90	Demand	0.00	Fixed	0.00	197.85	54.06
J-1460	72.80	Demand	10.80	Fixed	21.60	197.85	54.10
J-1465	71.20	Demand	6.40	Fixed	12.80	197.85	54.79
J-1475	70.40	Demand	8.80	Fixed	17.60	197.86	55.15
J-1490	57.90	Demand	0.00	Fixed	0.00	198.05	60.64
J-1495	63.30	Demand	2.40	Fixed	4.80	198.37	58.44
J-1500	65.80	Demand	4.80	Fixed	9.60	198.04	57.21
J-1505	59.40	Demand	0.00	Fixed	0.00	198.01	59.97
J-1510	67.20	Demand	4.40	Fixed	8.80	197.98	56.58
J-1515	67.20	Demand	0.00	Fixed	0.00	197.97	56.58
J-1520	67.30	Demand	0.00	Fixed	0.00	197.95	56.53
J-1525	68.70	Demand	4.40	Fixed	8.80	197.93	55.91
J-1530	64.40	Demand	4.80	Fixed	9.60	198.26	57.91
J-1535	64.20	Demand	0.00	Fixed	0.00	198.26	58.00
J-2000	79.46	Demand	0.00	Fixed	0.00	197.68	51.15
J-2005	72.85	Demand	14.90	Fixed	29.80	197.82	54.07
J-2010	80.79	Demand	19.60	Fixed	39.20	197.65	50.56
J-2020	82.53	Demand	8.00	Fixed	16.00	197.65	49.81
J-2030	83.82	Demand	5.20	Fixed	10.40	197.66	49.25
J-2040	82.91	Demand	4.40	Fixed	8.80	197.68	49.66
J-2050	82.01	Demand	0.00	Fixed	0.00	197.68	50.05
J-2060	81.43	Demand	3.60	Fixed	7.20	197.74	50.32
J-2070	81.68	Demand	0.00	Fixed	0.00	197.65	50.18
J-2080	82.32	Demand	0.00	Fixed	0.00	197.65	49.90
J-2090	80.95	Demand	0.00	Fixed	0.00	197.65	50.49
J-2100	84.12	Demand	4.80	Fixed	9.60	197.65	49.12
J-2110	79.47	Demand	8.00	Fixed	16.00	197.17	50.92
J-2120	82.68	Demand	7.20	Fixed	14.40	196.69	49.33
J-2130	84.45	Demand	3.20	Fixed	6.40	196.69	48.56
J-2140	82.29	Demand	4.40	Fixed	8.80	196.61	49.46
J-2150	83.99	Demand	0.00	Fixed	0.00	196.61	48.72
J-2160	82.01	Demand	7.20	Fixed	14.40	196.55	49.56
J-2170	83.80	Demand	0.00	Fixed	0.00	196.55	48.78
J-2180	72.01	Demand	11.16	Fixed	22.32	196.50	53.86
J-2190	77.29	Demand	0.00	Fixed	0.00	197.76	52.12
J-2200	78.51	Demand	0.00	Fixed	0.00	197.07	51.30
J-2210	80.07	Demand	0.00	Fixed	0.00	196.28	50.28
J-2220	81.56	Demand	0.00	Fixed	0.00	196.08	49.55

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-2230	83.62	Demand	0.00	Fixed	0.00	195.94	48.59
J-2240	87.60	Demand	0.00	Fixed	0.00	195.89	46.85
J-2250	86.42	Demand	7.60	Fixed	15.20	195.86	47.35
J-2260	78.00	Demand	7.20	Fixed	14.40	196.38	51.22
J-2270	77.33	Demand	0.00	Fixed	0.00	196.38	51.51
J-2280	77.87	Demand	0.00	Fixed	0.00	196.31	51.24
J-2290	79.32	Demand	0.00	Fixed	0.00	196.28	50.60
J-2300	78.24	Demand	0.00	Fixed	0.00	196.26	51.06
J-2310	78.74	Demand	7.20	Fixed	14.40	196.20	50.82
J-2320	78.00	Demand	0.00	Fixed	0.00	196.20	51.14
J-2330	80.36	Demand	0.00	Fixed	0.00	196.18	50.11
J-2340	79.84	Demand	12.80	Fixed	25.60	196.20	50.34
J-2350	81.49	Demand	9.20	Fixed	18.40	196.10	49.59
J-2360	81.99	Demand	0.00	Fixed	0.00	196.07	49.36
J-2370	82.95	Demand	14.80	Fixed	29.60	195.97	48.90
J-2380	79.53	Demand	10.00	Fixed	20.00	195.89	50.34
J-2400	86.00	Demand	7.60	Fixed	15.20	195.89	47.54
J-2410	87.00	Demand	9.60	Fixed	19.20	195.87	47.10
J-2420	83.42	Demand	0.00	Fixed	0.00	195.91	48.67
J-2430	86.38	Demand	10.00	Fixed	20.00	195.87	47.37
J-2440	86.80	Demand	0.00	Fixed	0.00	195.87	47.19
J-2450	87.00	Demand	10.00	Fixed	20.00	195.85	47.10
J-2460	89.31	Demand	10.80	Fixed	21.60	195.84	46.09
J-2470	90.96	Demand	8.80	Fixed	17.60	195.83	45.37
J-2480	90.00	Demand	0.00	Fixed	0.00	195.84	45.79
J-2490	90.00	Demand	10.00	Fixed	20.00	195.84	45.79
J-2500	90.45	Demand	10.00	Fixed	20.00	195.84	45.60
J-2510	88.61	Demand	0.00	Fixed	0.00	195.85	46.40
J-2520	88.42	Demand	0.00	Fixed	0.00	195.85	46.48
J-2530	87.41	Demand	6.00	Fixed	12.00	195.86	46.92
J-2540	87.15	Demand	0.00	Fixed	0.00	195.86	47.03
J-2560	83.29	Demand	0.00	Fixed	0.00	195.87	48.71
J-3000	58.00	Demand	0.00	Fixed	0.00	201.27	61.99
J-3010	56.98	Demand	0.00	Fixed	0.00	198.11	61.06
J-3030	58.28	Demand	0.00	Fixed	0.00	199.79	61.23
J-3040	62.88	Demand	0.00	Fixed	0.00	198.12	58.51
J-3050	59.32	Demand	17.20	Fixed	34.40	198.78	60.34
J-3060	61.77	Demand	0.00	Fixed	0.00	198.43	59.12
J-3080	59.48	Demand	0.00	Fixed	0.00	198.43	60.11
J-3090	59.34	Demand	12.40	Fixed	24.80	198.26	60.10
J-3095	58.72	Demand	0.00	Fixed	0.00	198.22	60.36
J-3100	58.88	Demand	0.00	Fixed	0.00	198.17	60.26
J-3110	61.00	Demand	0.00	Fixed	0.00	198.12	59.33
J-3120	60.39	Demand	0.00	Fixed	0.00	198.08	59.57
J-3130	48.01	Demand	10.00	Fixed	20.00	198.12	64.94
J-3140	50.20	Demand	0.00	Fixed	0.00	198.15	64.01
J-3150	51.44	Demand	0.00	Fixed	0.00	198.09	63.45
J-3160	53.00	Demand	0.00	Fixed	0.00	198.11	62.78
J-3170	50.11	Demand	0.00	Fixed	0.00	198.09	64.02
J-3180	49.07	Demand	0.00	Fixed	0.00	198.08	64.47
J-3190	50.06	Demand	16.00	Fixed	32.00	198.08	64.04
J-3200	55.32	Demand	0.00	Fixed	0.00	198.12	61.78

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-3210	55.87	Demand	0.00	Fixed	0.00	198.14	61.55
J-3220	54.25	Demand	16.00	Fixed	32.00	198.15	62.26
J-3225	54.24	Demand	15.60	Fixed	31.20	198.19	62.28
J-3230	55.08	Demand	0.00	Fixed	0.00	198.34	61.98
J-3240	56.90	Demand	0.00	Fixed	0.00	198.25	61.16
J-3245	56.71	Demand	18.80	Fixed	37.60	198.16	61.20
J-3250	55.40	Demand	0.00	Fixed	0.00	198.14	61.76
J-3260	55.61	Demand	0.00	Fixed	0.00	198.29	61.73
J-3265	55.50	Demand	17.60	Fixed	35.20	198.15	61.72
J-3270	54.08	Demand	0.00	Fixed	0.00	198.60	62.53
J-3275	51.00	Demand	0.00	Fixed	0.00	198.20	63.68
J-3280	51.98	Demand	0.00	Fixed	0.00	198.11	63.22
J-3285	52.18	Demand	12.40	Fixed	24.80	198.11	63.14
J-3290	49.48	Demand	0.00	Fixed	0.00	198.11	64.31
J-3300	49.59	Demand	0.00	Fixed	0.00	198.14	64.27
J-3310	50.62	Demand	13.56	Fixed	27.12	198.11	63.81
J-3320	51.05	Demand	0.00	Fixed	0.00	198.14	63.64
J-3330	61.03	Demand	0.00	Fixed	0.00	198.60	59.52
J-3340	59.54	Demand	0.00	Fixed	0.00	198.60	60.16
J-3350	59.70	Demand	19.60	Fixed	39.20	198.18	59.91
J-3360	61.10	Demand	0.00	Fixed	0.00	198.18	59.31
J-3370	55.12	Demand	22.88	Fixed	45.76	197.69	61.68
J-3380	55.04	Demand	13.50	Fixed	27.00	197.69	61.72
J-3390	54.92	Demand	9.00	Fixed	18.00	197.69	61.77
J-3400	49.53	Demand	6.40	Fixed	12.80	198.12	64.29
J-3410	50.82	Demand	8.80	Fixed	17.60	198.11	63.73
J-3420	58.00	Demand	0.00	Fixed	0.00	200.90	61.83
J-5000	76.20	Demand	0.00	Fixed	0.00	197.73	52.58
J-5001	63.00	Demand	2.40	Fixed	4.80	197.59	58.23

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1	45.00	Demand	0.00	Fixed	0.00	165.06	51.95
J-2	38.00	Demand	0.00	Fixed	0.00	164.10	54.56
J-3	37.00	Demand	0.00	Fixed	0.00	164.06	54.97
J-5	43.00	Demand	0.00	Fixed	0.00	164.15	52.41
J-6	43.00	Demand	0.00	Fixed	0.00	164.81	52.70
J-7	43.00	Demand	6.00	Fixed	21.00	164.13	52.41
J-8	47.00	Demand	6.00	Fixed	21.00	164.10	50.66
J-9	47.00	Demand	4.40	Fixed	15.40	164.09	50.66
J-10	63.34	Demand	0.00	Fixed	0.00	169.40	45.89
J-11	45.20	Demand	0.00	Fixed	0.00	164.09	51.44
J-12	44.00	Demand	0.00	Fixed	0.00	164.09	51.96
J-13	46.00	Demand	5.20	Fixed	18.20	164.09	51.09
J-14	45.00	Demand	5.20	Fixed	18.20	164.09	51.53
J-15	40.00	Demand	0.00	Fixed	0.00	164.10	53.69
J-16	40.00	Demand	5.60	Fixed	19.60	164.10	53.69
J-17	40.00	Demand	7.20	Fixed	25.20	164.11	53.70
J-18	37.00	Demand	0.00	Fixed	0.00	163.94	54.92
J-19	38.00	Demand	23.44	Fixed	82.04	163.81	54.43
J-20	50.91	Demand	17.19	Fixed	60.17	165.78	49.70
J-21	37.00	Demand	0.00	Fixed	0.00	163.78	54.85
J-22	37.00	Demand	0.00	Fixed	0.00	163.75	54.84
J-23	40.00	Demand	25.00	Fixed	87.50	163.74	53.54
J-24	37.00	Demand	0.00	Fixed	0.00	163.75	54.84
J-25	37.00	Demand	0.00	Fixed	0.00	163.75	54.84
J-26	37.00	Demand	0.00	Fixed	0.00	163.75	54.84
J-27	39.00	Demand	9.06	Fixed	31.71	163.75	53.97
J-28	39.00	Demand	0.00	Fixed	0.00	163.75	53.97
J-29	39.00	Demand	14.06	Fixed	49.21	163.75	53.97
J-30	66.90	Demand	0.00	Fixed	0.00	168.63	44.02
J-31	40.00	Demand	0.00	Fixed	0.00	163.77	53.55
J-32	40.00	Demand	0.00	Fixed	0.00	163.78	53.56
J-33	45.00	Demand	19.06	Fixed	66.71	163.80	51.40
J-34	40.00	Demand	0.00	Fixed	0.00	163.89	53.60
J-35	40.00	Demand	10.31	Fixed	36.08	163.78	53.55
J-36	40.00	Demand	0.00	Fixed	0.00	163.81	53.57
J-37	38.00	Demand	9.06	Fixed	31.71	163.84	54.44
J-39	43.00	Demand	15.63	Fixed	54.71	164.76	52.68
J-40	70.52	Demand	0.00	Fixed	0.00	168.60	42.44
J-40A	70.00	Demand	0.00	Fixed	0.00	168.59	42.66
J-41	47.00	Demand	5.00	Fixed	17.50	164.75	50.95
J-42	43.00	Demand	0.00	Fixed	0.00	164.88	52.73
J-43	50.00	Demand	5.00	Fixed	17.50	164.98	49.75
J-44	47.00	Demand	10.00	Fixed	35.00	164.94	51.03
J-45	50.00	Demand	0.00	Fixed	0.00	164.89	49.71
J-46	50.00	Demand	10.63	Fixed	37.21	164.83	49.68
J-47	49.00	Demand	0.00	Fixed	0.00	164.79	50.10
J-48	49.00	Demand	13.75	Fixed	48.13	164.75	50.08
J-50	70.72	Demand	9.00	Fixed	31.50	168.98	42.51
J-52	47.00	Demand	17.50	Fixed	61.25	164.74	50.94
J-55	56.31	Demand	0.00	Fixed	0.00	168.62	48.59
J-60	78.00	Demand	0.00	Fixed	0.00	168.63	39.21
J-65	79.06	Demand	4.00	Fixed	14.00	168.72	38.79

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-70	72.52	Demand	0.00	Fixed	0.00	168.76	41.64
J-75	74.14	Demand	4.00	Fixed	14.00	169.05	41.06
J-80	74.00	Demand	0.00	Fixed	0.00	168.70	40.97
J-90	72.14	Demand	19.20	Fixed	67.20	168.60	41.73
J-100	71.87	Demand	0.00	Fixed	0.00	168.60	41.85
J-110	72.60	Demand	21.60	Fixed	75.60	168.57	41.52
J-120	74.07	Demand	0.00	Fixed	0.00	168.70	40.94
J-130	75.25	Demand	15.60	Fixed	54.60	168.70	40.43
J-130A	74.00	Demand	0.00	Fixed	0.00	168.70	40.97
J-140	75.56	Demand	0.00	Fixed	0.00	168.70	40.30
J-150	75.14	Demand	0.00	Fixed	0.00	168.73	40.49
J-160	76.01	Demand	0.00	Fixed	0.00	168.73	40.12
J-170	74.37	Demand	0.00	Fixed	0.00	168.75	40.83
J-180	68.38	Demand	0.00	Fixed	0.00	169.71	43.84
J-190	69.42	Demand	0.00	Fixed	0.00	169.62	43.35
J-200	70.84	Demand	14.40	Fixed	50.40	170.21	42.99
J-210	70.31	Demand	0.00	Fixed	0.00	170.04	43.15
J-220	72.57	Demand	0.00	Fixed	0.00	169.67	42.01
J-230	72.90	Demand	0.00	Fixed	0.00	169.42	41.76
J-240	74.23	Demand	16.80	Fixed	58.80	169.41	41.18
J-250	71.50	Demand	16.00	Fixed	56.00	169.42	42.37
J-260	70.38	Demand	0.00	Fixed	0.00	169.42	42.85
J-270	72.61	Demand	0.00	Fixed	0.00	169.42	41.89
J-280	74.73	Demand	9.60	Fixed	33.60	168.85	40.72
J-290	75.43	Demand	0.00	Fixed	0.00	168.85	40.42
J-296	49.00	Demand	0.00	Fixed	0.00	164.75	50.08
J-298	49.00	Demand	0.00	Fixed	0.00	164.75	50.08
J-300	64.72	Demand	0.00	Fixed	0.00	167.39	44.42
J-302	43.00	Demand	0.00	Fixed	0.00	164.81	52.70
J-306	43.00	Demand	0.00	Fixed	0.00	164.21	52.44
J-310	64.12	Demand	8.80	Fixed	30.80	167.38	44.68
J-320	68.92	Demand	4.00	Fixed	14.00	168.19	42.95
J-330	67.86	Demand	12.00	Fixed	42.00	167.59	43.15
J-335	66.84	Demand	5.60	Fixed	19.60	167.56	43.58
J-340	65.40	Demand	0.00	Fixed	0.00	167.55	44.20
J-344	65.00	Demand	0.00	Fixed	0.00	171.28	45.98
J-345	58.00	Demand	0.00	Fixed	0.00	180.45	52.98
J-346	81.00	Demand	0.00	Fixed	0.00	275.00	83.93
J-347	80.00	Demand	0.00	Fixed	0.00	167.99	38.07
J-348	80.00	Demand	0.00	Fixed	0.00	167.99	38.07
J-349	48.00	Demand	2.49	Fixed	8.72	170.43	52.97
J-350	63.00	Demand	3.60	Fixed	12.60	167.39	45.17
J-351	49.00	Demand	2.49	Fixed	8.72	170.42	52.53
J-352	52.00	Demand	2.49	Fixed	8.72	170.94	51.46
J-353	53.20	Demand	2.49	Fixed	8.72	170.66	50.82
J-354	49.75	Demand	2.49	Fixed	8.72	170.57	52.27
J-355	61.46	Demand	0.00	Fixed	0.00	167.39	45.83
J-356	49.50	Demand	2.49	Fixed	8.72	170.59	52.39
J-357	48.50	Demand	2.49	Fixed	8.72	170.51	52.79
J-358	53.50	Demand	2.49	Fixed	8.72	171.01	50.84
J-359	52.00	Demand	2.49	Fixed	8.72	170.76	51.38
J-360	61.63	Demand	11.20	Fixed	39.20	166.38	45.32

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-360A	61.00	Demand	0.00	Fixed	0.00	166.38	45.59
J-361	55.00	Demand	2.49	Fixed	8.72	170.76	50.09
J-362	54.00	Demand	2.49	Fixed	8.72	170.77	50.52
J-363	54.50	Demand	2.49	Fixed	8.72	170.79	50.31
J-364	56.00	Demand	2.49	Fixed	8.72	170.79	49.67
J-365	58.65	Demand	11.50	Fixed	40.25	166.37	46.61
J-365A	58.00	Demand	0.00	Fixed	0.00	165.98	46.72
J-366	56.00	Demand	2.49	Fixed	8.72	170.85	49.69
J-367	57.00	Demand	2.49	Fixed	8.72	170.81	49.24
J-368	53.00	Demand	2.49	Fixed	8.72	170.76	50.95
J-369	52.50	Demand	2.49	Fixed	8.72	170.66	51.12
J-370	66.22	Demand	9.70	Fixed	33.95	167.44	43.79
J-371	50.00	Demand	2.49	Fixed	8.72	170.59	52.17
J-372	48.50	Demand	2.49	Fixed	8.72	170.44	52.76
J-373	51.50	Demand	2.49	Fixed	8.72	170.66	51.56
J-374	50.50	Demand	2.49	Fixed	8.72	170.57	51.95
J-375	50.00	Demand	2.49	Fixed	8.72	170.51	52.14
J-376	49.50	Demand	2.49	Fixed	8.72	170.51	52.36
J-377	48.70	Demand	2.49	Fixed	8.72	170.51	52.70
J-378	49.00	Demand	2.49	Fixed	8.72	170.52	52.58
J-379	48.70	Demand	2.49	Fixed	8.72	170.51	52.70
J-380	66.43	Demand	0.00	Fixed	0.00	168.50	44.16
J-381	41.70	Demand	8.00	Fixed	28.00	165.03	53.36
J-382	38.30	Demand	8.00	Fixed	28.00	165.02	54.83
J-383	33.00	Demand	8.00	Fixed	28.00	165.01	57.12
J-384	41.70	Demand	0.00	Fixed	0.00	275.00	100.94
J-385	65.00	Demand	3.20	Fixed	11.20	167.56	44.37
J-386	66.00	Demand	3.60	Fixed	12.60	167.67	43.99
J-387	66.00	Demand	5.20	Fixed	18.20	167.80	44.04
J-388	74.10	Demand	0.00	Fixed	0.00	171.15	41.99
J-389	74.20	Demand	2.00	Fixed	7.00	168.33	40.72
J-390	64.79	Demand	5.20	Fixed	18.20	167.40	44.40
J-392	64.00	Demand	1.20	Fixed	4.20	167.31	44.70
J-394	66.00	Demand	2.40	Fixed	8.40	167.79	44.04
J-395	67.20	Demand	1.20	Fixed	4.20	167.81	43.53
J-396	73.00	Demand	22.99	Fixed	80.46	167.88	41.05
J-397	75.70	Demand	3.20	Fixed	11.20	169.15	40.43
J-398	77.00	Demand	0.00	Fixed	0.00	169.03	39.82
J-399	77.00	Demand	0.00	Fixed	0.00	168.44	39.56
J-400	63.46	Demand	3.20	Fixed	11.20	167.39	44.97
J-401	77.00	Demand	2.40	Fixed	8.40	169.17	39.88
J-402	75.00	Demand	4.00	Fixed	14.00	169.63	40.94
J-403	67.00	Demand	1.60	Fixed	5.60	167.87	43.64
J-404	74.60	Demand	3.13	Fixed	10.95	167.92	40.37
J-405	76.20	Demand	3.29	Fixed	11.52	167.96	39.70
J-406	41.70	Demand	0.00	Fixed	0.00	275.00	100.94
J-407	81.00	Demand	0.00	Fixed	0.00	167.99	37.64
J-408	73.00	Demand	3.20	Fixed	11.20	169.31	41.67
J-409	73.00	Demand	2.00	Fixed	7.00	170.36	42.12
J-410	63.00	Demand	4.40	Fixed	15.40	167.39	45.17
J-411	73.00	Demand	2.80	Fixed	9.80	169.30	41.67
J-412	71.00	Demand	0.00	Fixed	0.00	168.92	42.36

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-413	76.00	Demand	6.08	Fixed	21.28	168.04	39.82
J-414	67.00	Demand	2.40	Fixed	8.40	168.07	43.73
J-415	73.00	Demand	3.60	Fixed	12.60	167.88	41.05
J-416	68.00	Demand	4.00	Fixed	14.00	167.90	43.22
J-417	67.00	Demand	1.60	Fixed	5.60	167.91	43.66
J-418	67.00	Demand	1.60	Fixed	5.60	167.81	43.62
J-419	67.00	Demand	3.20	Fixed	11.20	167.75	43.59
J-420	63.00	Demand	0.00	Fixed	0.00	167.15	45.06
J-421	66.00	Demand	2.40	Fixed	8.40	167.77	44.03
J-422	64.00	Demand	3.20	Fixed	11.20	167.67	44.85
J-423	65.00	Demand	2.80	Fixed	9.80	167.67	44.42
J-424	64.00	Demand	1.60	Fixed	5.60	167.48	44.77
J-425	73.00	Demand	3.65	Fixed	12.77	167.89	41.06
J-426	72.00	Demand	0.00	Fixed	0.00	167.90	41.49
J-427	72.00	Demand	6.82	Fixed	23.87	167.90	41.49
J-428	72.00	Demand	2.53	Fixed	8.85	167.90	41.49
J-429	74.00	Demand	2.53	Fixed	8.85	167.92	40.63
J-430	60.90	Demand	7.60	Fixed	26.60	166.15	45.54
J-431	75.00	Demand	0.00	Fixed	0.00	167.95	40.21
J-433	76.00	Demand	0.00	Fixed	0.00	167.97	39.79
J-434	76.00	Demand	0.00	Fixed	0.00	167.99	39.80
J-435	61.60	Demand	7.20	Fixed	25.20	166.32	45.31
J-435A	61.00	Demand	0.00	Fixed	0.00	166.26	45.54
J-436	74.00	Demand	14.37	Fixed	50.29	167.91	40.63
J-437	74.00	Demand	3.65	Fixed	12.77	167.91	40.63
J-438	76.00	Demand	0.00	Fixed	0.00	168.00	39.80
J-439	64.00	Demand	0.00	Fixed	0.00	167.21	44.65
J-440	60.59	Demand	9.60	Fixed	33.60	166.43	45.79
J-441	56.00	Demand	0.00	Fixed	0.00	166.35	47.74
J-442	54.00	Demand	0.00	Fixed	0.00	166.12	48.51
J-450	59.29	Demand	0.00	Fixed	0.00	166.14	46.23
J-450A	59.00	Demand	0.00	Fixed	0.00	166.14	46.35
J-470	58.00	Demand	3.20	Fixed	11.20	166.13	46.78
J-475	57.16	Demand	7.50	Fixed	26.25	166.13	47.15
J-480	59.15	Demand	0.00	Fixed	0.00	166.14	46.29
J-485	58.66	Demand	4.80	Fixed	16.80	166.13	46.50
J-490	59.97	Demand	0.00	Fixed	0.00	166.39	46.04
J-500	63.34	Demand	5.60	Fixed	19.60	167.97	45.27
J-510	64.22	Demand	0.00	Fixed	0.00	167.95	44.88
J-520	63.00	Demand	0.00	Fixed	0.00	167.98	45.42
J-520A	63.00	Demand	0.00	Fixed	0.00	167.98	45.42
J-530	61.57	Demand	12.40	Fixed	43.40	168.00	46.05
J-540	64.71	Demand	0.00	Fixed	0.00	168.11	44.74
J-550	67.29	Demand	0.00	Fixed	0.00	168.10	43.62
J-560	66.05	Demand	16.40	Fixed	57.40	168.10	44.15
J-570	66.00	Demand	0.00	Fixed	0.00	168.24	44.23
J-580	64.21	Demand	13.20	Fixed	46.20	168.03	44.92
J-590	63.12	Demand	0.00	Fixed	0.00	168.04	45.40
J-600	69.08	Demand	0.00	Fixed	0.00	167.85	42.73
J-610	67.88	Demand	5.20	Fixed	18.20	167.85	43.25
J-620	55.00	Demand	0.00	Fixed	0.00	165.65	47.87
J-630	49.99	Demand	0.00	Fixed	0.00	165.27	49.88

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-635	48.00	Demand	0.00	Fixed	0.00	165.16	50.69
J-640	55.00	Demand	0.00	Fixed	0.00	165.64	47.87
J-650	56.23	Demand	0.00	Fixed	0.00	165.64	47.34
J-660	52.32	Demand	0.00	Fixed	0.00	165.61	49.02
J-670	53.48	Demand	0.00	Fixed	0.00	165.61	48.51
J-680	58.46	Demand	19.60	Fixed	68.60	165.99	46.52
J-700	58.75	Demand	0.00	Fixed	0.00	166.07	46.43
J-710	57.28	Demand	0.00	Fixed	0.00	166.07	47.07
J-720	54.01	Demand	0.00	Fixed	0.00	165.97	48.44
J-730	55.06	Demand	0.00	Fixed	0.00	165.90	47.96
J-740	57.00	Demand	0.00	Fixed	0.00	165.97	47.14
J-750	55.01	Demand	0.00	Fixed	0.00	165.97	48.01
J-750A	55.00	Demand	0.00	Fixed	0.00	165.98	48.01
J-760	51.15	Demand	19.20	Fixed	67.20	165.77	49.59
J-770	51.19	Demand	16.80	Fixed	58.80	165.60	49.50
J-780	47.22	Demand	0.00	Fixed	0.00	165.41	51.14
J-785	50.53	Demand	12.00	Fixed	42.00	165.35	49.68
J-790	49.86	Demand	0.00	Fixed	0.00	165.35	49.97
J-800	48.00	Demand	0.00	Fixed	0.00	165.31	50.75
J-810	48.24	Demand	12.40	Fixed	43.40	165.31	50.65
J-820	48.27	Demand	0.00	Fixed	0.00	165.28	50.63
J-830	49.28	Demand	0.00	Fixed	0.00	165.28	50.19
J-840	50.00	Demand	0.00	Fixed	0.00	165.17	49.83
J-845	48.00	Demand	0.00	Fixed	0.00	165.17	50.69
J-850	58.38	Demand	0.00	Fixed	0.00	165.12	46.18
J-860	53.78	Demand	20.80	Fixed	72.80	165.03	48.13
J-870	53.89	Demand	1.60	Fixed	5.60	165.10	48.11
J-880	51.19	Demand	2.40	Fixed	8.40	165.22	49.34
J-890	51.00	Demand	0.00	Fixed	0.00	165.29	49.45
J-900	49.92	Demand	0.00	Fixed	0.00	165.22	49.89
J-910	51.66	Demand	4.80	Fixed	16.80	165.18	49.11
J-920	52.29	Demand	0.00	Fixed	0.00	165.18	48.84
J-930	55.00	Demand	8.40	Fixed	29.40	165.04	47.61
J-935	55.00	Demand	4.00	Fixed	14.00	165.06	47.62
J-940	51.83	Demand	0.00	Fixed	0.00	165.01	48.97
J-945	55.86	Demand	7.60	Fixed	26.60	165.04	47.24
J-950	48.48	Demand	5.60	Fixed	19.60	165.06	50.44
J-960	53.74	Demand	11.20	Fixed	39.20	165.01	48.14
J-970	48.18	Demand	0.00	Fixed	0.00	165.06	50.57
J-980	70.85	Demand	0.00	Fixed	0.00	170.79	43.24
J-990	64.17	Demand	0.00	Fixed	0.00	168.85	45.29
J-1000	66.35	Demand	94.00	Fixed	329.00	167.38	43.71
J-1010	94.62	Demand	0.00	Fixed	0.00	168.60	32.01
J-1020	70.20	Demand	0.00	Fixed	0.00	168.61	42.58
J-1030	70.00	Demand	39.60	Fixed	138.60	168.60	42.66
J-1070	70.00	Demand	0.00	Fixed	0.00	168.63	42.67
J-1080	72.75	Demand	0.00	Fixed	0.00	168.61	41.47
J-1120	65.00	Demand	0.00	Fixed	0.00	171.15	45.93
J-1330	65.10	Demand	0.00	Fixed	0.00	168.72	44.83
J-1335	68.70	Demand	0.00	Fixed	0.00	168.64	43.24
J-1345	61.40	Demand	0.00	Fixed	0.00	168.89	46.51
J-1370	72.70	Demand	22.80	Fixed	79.80	168.64	41.51

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-1380	72.80	Demand	0.00	Fixed	0.00	168.64	41.46
J-1385	73.00	Demand	4.40	Fixed	15.40	168.63	41.38
J-1390	74.00	Demand	0.00	Fixed	0.00	168.63	40.94
J-1395	74.50	Demand	5.60	Fixed	19.60	168.63	40.73
J-1405	72.60	Demand	0.00	Fixed	0.00	168.82	41.63
J-1410	75.40	Demand	0.00	Fixed	0.00	168.63	40.34
J-1415	73.90	Demand	0.00	Fixed	0.00	168.63	40.99
J-1420	72.70	Demand	4.00	Fixed	14.00	168.63	41.50
J-1425	72.10	Demand	4.40	Fixed	15.40	168.63	41.76
J-1430	72.00	Demand	6.40	Fixed	22.40	168.63	41.81
J-1435	72.20	Demand	0.00	Fixed	0.00	168.63	41.72
J-1440	72.20	Demand	0.00	Fixed	0.00	168.63	41.72
J-1445	72.20	Demand	0.00	Fixed	0.00	168.63	41.72
J-1450	72.80	Demand	0.00	Fixed	0.00	168.67	41.48
J-1455	72.90	Demand	0.00	Fixed	0.00	168.64	41.42
J-1460	72.80	Demand	10.80	Fixed	37.80	168.63	41.46
J-1465	71.20	Demand	6.40	Fixed	22.40	168.64	42.16
J-1475	70.40	Demand	8.80	Fixed	30.80	168.69	42.53
J-1490	57.90	Demand	0.00	Fixed	0.00	169.37	48.23
J-1495	63.30	Demand	2.40	Fixed	8.40	170.55	46.40
J-1500	65.80	Demand	4.80	Fixed	16.80	169.35	44.80
J-1505	59.40	Demand	0.00	Fixed	0.00	169.25	47.53
J-1510	67.20	Demand	4.40	Fixed	15.40	169.14	44.11
J-1515	67.20	Demand	0.00	Fixed	0.00	169.08	44.08
J-1520	67.30	Demand	0.00	Fixed	0.00	169.01	44.00
J-1525	68.70	Demand	4.40	Fixed	15.40	168.95	43.37
J-1530	64.40	Demand	4.80	Fixed	16.80	170.15	45.75
J-1535	64.20	Demand	0.00	Fixed	0.00	170.15	45.84
J-2000	79.46	Demand	0.00	Fixed	0.00	168.01	38.31
J-2005	72.85	Demand	14.90	Fixed	52.15	168.51	41.39
J-2010	80.79	Demand	19.60	Fixed	68.60	167.95	37.71
J-2020	82.53	Demand	8.00	Fixed	28.00	167.96	36.96
J-2030	83.82	Demand	5.20	Fixed	18.20	167.98	36.41
J-2040	82.91	Demand	4.40	Fixed	15.40	168.05	36.84
J-2050	82.01	Demand	0.00	Fixed	0.00	168.05	37.23
J-2060	81.43	Demand	3.60	Fixed	12.60	168.25	37.56
J-2070	81.68	Demand	0.00	Fixed	0.00	167.96	37.33
J-2080	82.32	Demand	0.00	Fixed	0.00	167.95	37.05
J-2090	80.95	Demand	0.00	Fixed	0.00	167.95	37.64
J-2100	84.12	Demand	4.80	Fixed	16.80	167.95	36.27
J-2110	79.47	Demand	8.00	Fixed	28.00	166.51	37.66
J-2120	82.68	Demand	7.20	Fixed	25.20	165.15	35.68
J-2130	84.45	Demand	3.20	Fixed	11.20	165.14	34.91
J-2140	82.29	Demand	4.40	Fixed	15.40	164.91	35.75
J-2150	83.99	Demand	0.00	Fixed	0.00	164.91	35.01
J-2160	82.01	Demand	7.20	Fixed	25.20	164.76	35.80
J-2170	83.80	Demand	0.00	Fixed	0.00	164.76	35.03
J-2180	72.01	Demand	11.16	Fixed	39.06	164.61	40.06
J-2190	77.29	Demand	0.00	Fixed	0.00	168.11	39.29
J-2200	78.51	Demand	0.00	Fixed	0.00	166.21	37.94
J-2210	80.07	Demand	0.00	Fixed	0.00	163.98	36.30
J-2220	81.56	Demand	0.00	Fixed	0.00	163.42	35.42

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-2230	83.62	Demand	0.00	Fixed	0.00	163.01	34.35
J-2240	87.60	Demand	0.00	Fixed	0.00	162.87	32.56
J-2250	86.42	Demand	7.60	Fixed	26.60	162.78	33.04
J-2260	78.00	Demand	7.20	Fixed	25.20	164.25	37.32
J-2270	77.33	Demand	0.00	Fixed	0.00	164.25	37.61
J-2280	77.87	Demand	0.00	Fixed	0.00	164.06	37.29
J-2290	79.32	Demand	0.00	Fixed	0.00	163.97	36.62
J-2300	78.24	Demand	0.00	Fixed	0.00	163.92	37.07
J-2310	78.74	Demand	7.20	Fixed	25.20	163.77	36.79
J-2320	78.00	Demand	0.00	Fixed	0.00	163.77	37.11
J-2330	80.36	Demand	0.00	Fixed	0.00	163.70	36.06
J-2340	79.84	Demand	12.80	Fixed	44.80	163.74	36.30
J-2350	81.49	Demand	9.20	Fixed	32.20	163.48	35.48
J-2360	81.99	Demand	0.00	Fixed	0.00	163.39	35.22
J-2370	82.95	Demand	14.80	Fixed	51.80	163.11	34.68
J-2380	79.53	Demand	10.00	Fixed	35.00	162.87	36.06
J-2400	86.00	Demand	7.60	Fixed	26.60	162.87	33.26
J-2410	87.00	Demand	9.60	Fixed	33.60	162.83	32.81
J-2420	83.42	Demand	0.00	Fixed	0.00	162.93	34.40
J-2430	86.38	Demand	10.00	Fixed	35.00	162.81	33.07
J-2440	86.80	Demand	0.00	Fixed	0.00	162.81	32.89
J-2450	87.00	Demand	10.00	Fixed	35.00	162.78	32.79
J-2460	89.31	Demand	10.80	Fixed	37.80	162.74	31.77
J-2470	90.96	Demand	8.80	Fixed	30.80	162.72	31.05
J-2480	90.00	Demand	0.00	Fixed	0.00	162.74	31.47
J-2490	90.00	Demand	10.00	Fixed	35.00	162.74	31.47
J-2500	90.45	Demand	10.00	Fixed	35.00	162.73	31.27
J-2510	88.61	Demand	0.00	Fixed	0.00	162.77	32.08
J-2520	88.42	Demand	0.00	Fixed	0.00	162.76	32.16
J-2530	87.41	Demand	6.00	Fixed	21.00	162.78	32.61
J-2540	87.15	Demand	0.00	Fixed	0.00	162.78	32.72
J-2560	83.29	Demand	0.00	Fixed	0.00	162.83	34.41
J-3000	58.00	Demand	0.00	Fixed	0.00	180.41	52.96
J-3010	56.98	Demand	0.00	Fixed	0.00	169.97	48.88
J-3030	58.28	Demand	0.00	Fixed	0.00	175.48	50.71
J-3040	62.88	Demand	0.00	Fixed	0.00	169.94	46.32
J-3050	59.32	Demand	17.20	Fixed	60.20	172.05	48.77
J-3060	61.77	Demand	0.00	Fixed	0.00	170.91	47.22
J-3080	59.48	Demand	0.00	Fixed	0.00	170.91	48.21
J-3090	59.34	Demand	12.40	Fixed	43.40	170.39	48.05
J-3095	58.72	Demand	0.00	Fixed	0.00	170.26	48.26
J-3100	58.88	Demand	0.00	Fixed	0.00	170.09	48.12
J-3110	61.00	Demand	0.00	Fixed	0.00	169.94	47.13
J-3120	60.39	Demand	0.00	Fixed	0.00	169.77	47.32
J-3130	48.01	Demand	10.00	Fixed	35.00	170.13	52.84
J-3140	50.20	Demand	0.00	Fixed	0.00	170.26	51.95
J-3150	51.44	Demand	0.00	Fixed	0.00	170.03	51.31
J-3160	53.00	Demand	0.00	Fixed	0.00	170.09	50.66
J-3170	50.11	Demand	0.00	Fixed	0.00	170.02	51.88
J-3180	49.07	Demand	0.00	Fixed	0.00	170.01	52.33
J-3190	50.06	Demand	16.00	Fixed	56.00	170.01	51.90
J-3200	55.32	Demand	0.00	Fixed	0.00	170.09	49.66

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Junction Report

Label	Elevation (ft)	Type	Base Flow (gpm)	Pattern	Demand (Calculated) (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
J-3210	55.87	Demand	0.00	Fixed	0.00	170.17	49.45
J-3220	54.25	Demand	16.00	Fixed	56.00	170.23	50.18
J-3225	54.24	Demand	15.60	Fixed	54.60	170.38	50.25
J-3230	55.08	Demand	0.00	Fixed	0.00	170.87	50.10
J-3240	56.90	Demand	0.00	Fixed	0.00	170.57	49.18
J-3245	56.71	Demand	18.80	Fixed	65.80	170.27	49.13
J-3250	55.40	Demand	0.00	Fixed	0.00	170.20	49.67
J-3260	55.61	Demand	0.00	Fixed	0.00	170.69	49.79
J-3265	55.50	Demand	17.60	Fixed	61.60	170.23	49.64
J-3270	54.08	Demand	0.00	Fixed	0.00	171.73	50.90
J-3275	51.00	Demand	0.00	Fixed	0.00	170.42	51.67
J-3280	51.98	Demand	0.00	Fixed	0.00	170.10	51.10
J-3285	52.18	Demand	12.40	Fixed	43.40	170.10	51.02
J-3290	49.48	Demand	0.00	Fixed	0.00	170.12	52.20
J-3300	49.59	Demand	0.00	Fixed	0.00	170.22	52.19
J-3310	50.62	Demand	13.56	Fixed	47.46	170.10	51.69
J-3320	51.05	Demand	0.00	Fixed	0.00	170.21	51.56
J-3330	61.03	Demand	0.00	Fixed	0.00	171.47	47.78
J-3340	59.54	Demand	0.00	Fixed	0.00	171.47	48.43
J-3350	59.70	Demand	19.60	Fixed	68.60	170.12	47.77
J-3360	61.10	Demand	0.00	Fixed	0.00	170.12	47.17
J-3370	55.12	Demand	22.88	Fixed	80.08	168.71	49.14
J-3380	55.04	Demand	13.50	Fixed	47.25	168.69	49.17
J-3390	54.92	Demand	9.00	Fixed	31.50	168.70	49.23
J-3400	49.53	Demand	6.40	Fixed	22.40	170.14	52.18
J-3410	50.82	Demand	8.80	Fixed	30.80	170.11	51.61
J-3420	58.00	Demand	0.00	Fixed	0.00	179.17	52.42
J-5000	76.20	Demand	0.00	Fixed	0.00	168.01	39.72
J-5001	63.00	Demand	2.40	Fixed	8.40	167.63	45.27

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-1	1,577.00	12.0	130.0	0.00	Open	-394.84	0.45	0.72	1.12
P-2	458.00	8.0	130.0	0.00	Open	-310.84	2.10	0.96	1.98
P-3	496.00	8.0	130.0	0.00	Open	-54.20	0.08	0.04	0.35
P-4	717.00	8.0	130.0	0.00	Open	90.17	0.21	0.15	0.58
P-5	182.00	8.0	130.0	0.00	Open	-122.55	0.37	0.07	0.78
P-7	333.00	8.0	130.0	0.00	Open	213.43	1.05	0.35	1.36
P-8	134.00	8.0	130.0	0.00	Open	65.29	0.12	0.02	0.42
P-9	612.00	8.0	130.0	0.00	Open	44.29	0.06	0.03	0.28
P-10	485.00	10.0	130.0	0.00	Open	-422.18	1.25	0.61	1.72
P-11	257.00	8.0	130.0	0.00	Open	15.40	0.01	0.00	0.10
P-12	271.00	6.0	130.0	0.20	Open	7.89	0.01	0.00	0.09
P-13	280.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-14	381.00	8.0	130.0	0.00	Open	-7.89	0.00	0.00	0.05
P-15	468.00	10.0	130.0	0.00	Open	46.15	0.02	0.01	0.19
P-16	278.00	8.0	130.0	0.00	Open	10.31	0.00	0.00	0.07
P-17	325.00	8.0	130.0	0.00	Open	28.51	0.03	0.01	0.18
P-18	239.00	8.0	130.0	0.00	Open	-12.46	0.01	0.00	0.08
P-19	310.00	8.0	130.0	0.00	Open	-32.06	0.03	0.01	0.20
P-20	630.00	12.0	130.0	0.00	Open	-335.67	0.34	0.21	0.95
P-21	368.00	8.0	130.0	0.00	Open	-57.26	0.09	0.03	0.37
P-22	197.00	8.0	130.0	0.00	Open	16.05	0.01	0.00	0.10
P-23	248.00	8.0	130.0	0.00	Open	144.37	0.51	0.13	0.92
P-24	248.00	8.0	130.0	0.00	Open	144.37	0.51	0.13	0.92
P-25	289.00	8.0	130.0	0.00	Open	62.33	0.11	0.03	0.40
P-27	262.00	8.0	130.0	0.00	Open	62.33	0.11	0.03	0.40
P-29	202.00	8.0	130.0	0.00	Open	43.30	0.05	0.01	0.28
P-30	369.00	10.0	130.0	0.40	Open	-98.22	0.09	0.03	0.40
P-30A	217.00	10.0	130.0	0.00	Open	68.21	0.04	0.01	0.28
P-31	140.00	8.0	130.0	0.00	Open	-19.03	0.01	0.00	0.12
P-32	209.00	8.0	130.0	0.00	Open	-25.17	0.02	0.00	0.16
P-33	233.00	8.0	130.0	0.00	Open	24.33	0.02	0.00	0.16
P-34	221.00	8.0	130.0	0.00	Open	24.33	0.02	0.00	0.16
P-35	218.00	8.0	130.0	0.00	Open	-7.38	0.00	0.00	0.05
P-36	131.00	8.0	130.0	0.00	Open	-7.38	0.00	0.00	0.05
P-37	287.00	8.0	130.0	0.00	Open	-56.59	0.09	0.03	0.36
P-38	128.00	8.0	130.0	0.00	Open	-56.59	0.09	0.01	0.36
P-39	190.00	8.0	130.0	0.00	Open	-56.59	0.09	0.02	0.36
P-40	812.00	10.0	130.0	0.20	Open	249.34	0.47	0.39	1.02
P-41	244.00	8.0	130.0	0.00	Open	-123.30	0.38	0.09	0.79
P-42	161.00	8.0	130.0	0.00	Open	-240.60	1.31	0.21	1.54
P-43	353.00	8.0	130.0	0.00	Open	49.50	0.07	0.02	0.32
P-44	161.00	8.0	130.0	0.00	Open	85.59	0.19	0.03	0.55
P-45	141.00	8.0	130.0	0.00	Open	85.59	0.19	0.03	0.55
P-46	162.00	8.0	130.0	0.00	Open	117.30	0.35	0.06	0.75
P-47	189.00	8.0	130.0	0.00	Open	-0.71	0.00	0.00	0.00
P-48	187.00	8.0	130.0	0.00	Open	101.44	0.26	0.05	0.65
P-49	175.00	8.0	130.0	0.00	Open	46.73	0.06	0.01	0.30
P-50	1,311.00	12.0	130.0	0.20	Open	-63.21	0.02	0.02	0.18
P-51	274.00	8.0	130.0	0.00	Open	100.73	0.26	0.07	0.64
P-52	118.00	8.0	130.0	0.00	Open	270.58	1.62	0.19	1.73
P-53	275.00	10.0	130.0	0.00	Open	135.73	0.15	0.04	0.55

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-54	221.00	8.0	130.0	0.00	Open	100.73	0.26	0.06	0.64
P-55	281.00	8.0	130.0	0.00	Open	117.35	0.35	0.10	0.75
P-56	155.00	8.0	130.0	0.00	Open	117.35	0.35	0.05	0.75
P-57	227.00	8.0	130.0	0.00	Open	80.14	0.17	0.04	0.51
P-58	231.00	8.0	130.0	0.00	Open	80.14	0.17	0.04	0.51
P-59	190.00	8.0	130.0	0.00	Open	32.02	0.03	0.01	0.20
P-60	407.00	8.0	130.0	0.40	Open	-107.62	0.30	0.12	0.69
P-62	184.00	8.0	130.0	0.00	Open	29.23	0.03	0.00	0.19
P-70	394.00	8.0	130.0	0.00	Open	150.77	0.55	0.22	0.96
P-77	439.00	8.0	130.0	0.00	Open	-30.66	0.03	0.01	0.20
P-80	182.00	8.0	130.0	0.00	Open	112.91	0.32	0.06	0.72
P-90	315.00	8.0	130.0	0.00	Open	112.79	0.32	0.10	0.72
P-100	787.00	8.0	130.0	0.00	Open	-12.99	0.01	0.00	0.08
P-110	173.00	8.0	130.0	0.00	Open	-30.01	0.03	0.00	0.19
P-120	438.00	8.0	130.0	0.00	Open	-43.00	0.05	0.02	0.27
P-130	875.00	8.0	130.0	0.00	Open	32.60	0.03	0.03	0.21
P-139	122.00	10.0	130.0	0.00	Open	-250.79	0.48	0.06	1.02
P-150A	434.00	8.0	130.0	0.00	Open	1.58	0.00	0.00	0.01
P-150B	464.00	8.0	130.0	0.00	Open	-0.12	0.00	0.00	0.00
P-150C	283.00	8.0	130.0	0.00	Open	1.70	0.00	0.00	0.01
P-160	805.00	8.0	130.0	0.00	Open	1.58	0.00	0.00	0.01
P-170	81.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-180	331.00	8.0	130.0	0.00	Open	54.48	0.08	0.03	0.35
P-190	171.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-200	282.00	8.0	130.0	0.00	Open	-37.87	0.04	0.01	0.24
P-210	227.00	8.0	130.0	0.00	Open	54.48	0.08	0.02	0.35
P-220	518.00	12.0	130.0	0.00	Open	900.83	2.09	1.08	2.56
P-230	493.00	10.0	130.0	0.00	Open	-431.61	1.30	0.64	1.76
P-240	258.00	10.0	130.0	0.00	Open	-214.13	0.35	0.09	0.87
P-250	392.00	8.0	130.0	0.00	Open	217.48	1.08	0.42	1.39
P-270	152.00	8.0	130.0	0.00	Open	217.48	1.08	0.16	1.39
P-270A	100.00	8.0	130.0	0.00	Open	-540.51	5.85	0.58	3.45
P-280	270.00	8.0	130.0	0.00	Open	-124.24	0.38	0.10	0.79
P-290	327.00	8.0	130.0	0.00	Open	272.64	1.65	0.54	1.74
P-300	276.00	6.0	130.0	0.00	Open	10.18	0.02	0.00	0.12
P-310	264.00	8.0	130.0	0.00	Open	-206.46	0.98	0.26	1.32
P-320	644.00	6.0	130.0	0.00	Open	10.18	0.02	0.01	0.12
P-329	557.00	8.0	130.0	0.00	Open	-18.32	0.01	0.01	0.12
P-330	506.00	6.0	130.0	0.00	Open	66.18	0.49	0.25	0.75
P-340	236.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-350	149.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-360	931.00	8.0	130.0	0.00	Open	-157.84	0.60	0.56	1.01
P-362	861.00	8.0	130.0	0.00	Open	65.56	0.12	0.10	0.42
P-364	575.00	8.0	130.0	0.00	Open	212.72	1.04	0.60	1.36
P-370	141.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-380	558.00	8.0	130.0	0.00	Open	215.84	1.07	0.60	1.38
P-389	165.00	8.0	130.0	0.00	Open	-44.20	0.06	0.01	0.28
P-390	185.00	8.0	130.0	0.00	Open	317.55	2.18	0.40	2.03
P-400	419.00	6.0	130.0	0.00	Open	87.71	0.82	0.34	1.00
P-410	337.00	8.0	130.0	0.00	Open	60.92	0.10	0.03	0.39
P-420	269.00	6.0	130.0	0.00	Open	76.71	0.64	0.17	0.87

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-422	241.00	8.0	130.0	0.00	Open	29.23	0.03	0.01	0.19
P-423	248.00	8.0	130.0	0.00	Open	32.02	0.03	0.01	0.20
P-424	10.00	16.0	130.0	0.00	Open	2,786.52	4.17	0.04	4.45
P-425	10.00	16.0	130.0	0.00	Open	2,786.52	4.16	0.04	4.45
P-426	102.00	16.0	130.0	0.00	Open	1,441.34	1.23	0.13	2.30
P-427	10.00	16.0	130.0	0.00	Open	2,912.78	4.52	0.05	4.65
P-428	10.00	16.0	130.0	0.00	Open	2,912.78	4.52	0.05	4.65
P-429	10.00	16.0	130.0	0.00	Open	2,912.78	4.52	0.05	4.65
P-430	435.00	6.0	130.0	0.00	Open	7.20	0.01	0.00	0.08
P-432	190.00	12.0	130.0	0.00	Open	-0.00	0.00	0.00	0.00
P-434	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-435	20.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-436	606.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-437	161.00	8.0	130.0	5.00	Closed	0.00	0.00	0.00	0.00
P-438	399.00	8.0	130.0	0.00	Open	301.17	1.98	0.79	1.92
P-439	514.00	8.0	130.0	0.00	Open	209.51	1.01	0.52	1.34
P-440	131.00	8.0	130.0	0.00	Open	-55.69	0.09	0.01	0.36
P-441	359.00	6.0	130.0	0.00	Open	142.16	2.00	0.72	1.61
P-442	381.00	6.0	130.0	0.00	Open	62.08	0.43	0.16	0.70
P-443	618.00	6.0	130.0	0.00	Open	22.11	0.06	0.04	0.25
P-444	428.00	6.0	130.0	0.00	Open	13.40	0.03	0.01	0.15
P-445	577.00	6.0	130.0	0.00	Open	4.68	0.00	0.00	0.05
P-446	432.00	6.0	130.0	0.00	Open	-31.25	0.12	0.05	0.35
P-447	261.00	6.0	130.0	0.00	Open	27.22	0.09	0.02	0.31
P-448	416.00	6.0	130.0	0.00	Open	8.72	0.01	0.00	0.10
P-449	406.00	6.0	130.0	0.00	Open	9.79	0.01	0.01	0.11
P-450	298.00	8.0	130.0	0.00	Open	147.04	0.52	0.16	0.94
P-451	276.00	6.0	130.0	0.00	Open	1.07	0.00	0.00	0.01
P-452	442.00	6.0	130.0	0.00	Open	-71.37	0.56	0.25	0.81
P-453	249.00	8.0	130.0	0.00	Open	-7.22	0.00	0.00	0.05
P-454	474.00	6.0	130.0	0.00	Open	-15.94	0.03	0.02	0.18
P-455	282.00	6.0	130.0	0.00	Open	8.72	0.01	0.00	0.10
P-456	228.00	6.0	130.0	0.00	Open	63.72	0.45	0.10	0.72
P-457	187.00	6.0	130.0	0.00	Open	57.00	0.37	0.07	0.65
P-458	224.00	6.0	130.0	0.00	Open	8.72	0.01	0.00	0.10
P-459	406.00	6.0	130.0	0.00	Open	-1.99	0.00	0.00	0.02
P-460	584.00	8.0	130.0	0.00	Open	-52.17	0.08	0.04	0.33
P-461	154.00	6.0	130.0	0.00	Open	-10.71	0.02	0.00	0.12
P-462	374.00	6.0	130.0	0.00	Open	-82.94	0.74	0.28	0.94
P-463	198.00	6.0	130.0	0.00	Open	63.52	0.45	0.09	0.72
P-464	179.00	6.0	130.0	0.00	Open	8.72	0.01	0.00	0.10
P-465	239.00	6.0	130.0	0.00	Open	46.09	0.25	0.06	0.52
P-466	172.00	6.0	130.0	0.00	Open	4.00	0.00	0.00	0.05
P-467	208.00	6.0	130.0	0.00	Open	-13.43	0.03	0.01	0.15
P-468	384.00	6.0	130.0	0.00	Open	-39.57	0.19	0.07	0.45
P-469	206.00	6.0	130.0	0.00	Open	17.43	0.04	0.01	0.20
P-470	269.00	8.0	130.0	0.00	Open	-3.52	0.00	0.00	0.02
P-471	138.00	6.0	130.0	0.00	Open	8.72	0.01	0.00	0.10
P-472	453.00	6.0	130.0	0.00	Open	8.72	0.01	0.01	0.10
P-473	572.00	6.0	130.0	0.00	Open	-33.37	0.14	0.08	0.38
P-474	1,161.00	12.0	130.0	0.00	Open	84.00	0.03	0.03	0.24

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-475	1,234.00	12.0	130.0	0.00	Open	56.00	0.01	0.02	0.16
P-476	1,214.00	12.0	130.0	0.00	Open	28.00	0.00	0.00	0.08
P-477	230.00	12.0	130.0	0.00	Closed	0.00	0.00	0.00	0.00
P-480	298.00	8.0	130.0	0.00	Open	29.97	0.03	0.01	0.19
P-482	246.00	8.0	130.0	0.00	Open	-141.50	0.49	0.12	0.90
P-484	532.00	8.0	130.0	0.00	Closed	0.00	0.00	0.00	0.00
P-485	189.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-488	298.00	8.0	130.0	0.00	Open	121.42	0.37	0.11	0.77
P-490	266.00	8.0	130.0	0.00	Open	-1.97	0.00	0.00	0.01
P-491	460.00	12.0	130.0	0.00	Open	220.99	0.15	0.07	0.63
P-492	230.00	12.0	130.0	0.00	Open	199.71	0.13	0.03	0.57
P-493	94.00	8.0	130.0	0.00	Open	357.49	2.72	0.26	2.28
P-494	297.00	8.0	130.0	0.00	Open	200.04	0.93	0.28	1.28
P-495	296.00	8.0	130.0	0.00	Open	90.59	0.21	0.06	0.58
P-496	615.00	8.0	130.0	0.00	Open	-6.90	0.00	0.00	0.04
P-498	152.00	8.0	130.0	0.00	Open	-96.67	0.24	0.04	0.62
P-499	132.00	8.0	130.0	0.00	Open	80.79	0.17	0.02	0.52
P-500	445.00	6.0	130.0	0.00	Open	-12.75	0.02	0.01	0.14
P-501	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-502	10.00	12.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-503	300.00	8.0	130.0	25.00	Open	0.00	0.00	0.00	0.00
P-504	99.00	8.0	130.0	0.00	Open	181.44	0.77	0.08	1.16
P-506	238.00	8.0	130.0	0.00	Open	175.84	0.73	0.17	1.12
P-507	652.00	12.0	130.0	0.00	Open	-0.00	0.00	0.00	0.00
P-508	317.00	12.0	130.0	0.00	Open	91.52	0.03	0.01	0.26
P-509	343.00	12.0	130.0	0.00	Open	91.52	0.03	0.01	0.26
P-510	348.00	8.0	130.0	0.00	Open	12.76	0.01	0.00	0.08
P-511	71.00	8.0	130.0	0.00	Open	91.52	0.22	0.02	0.58
P-512	119.00	8.0	130.0	0.00	Open	91.52	0.22	0.03	0.58
P-513	139.00	8.0	130.0	0.00	Open	91.52	0.22	0.03	0.58
P-514	201.00	8.0	130.0	0.00	Open	33.23	0.03	0.01	0.21
P-515	285.00	8.0	130.0	0.00	Open	-17.06	0.01	0.00	0.11
P-516	178.00	8.0	130.0	0.00	Open	-29.84	0.03	0.00	0.19
P-517	201.00	8.0	130.0	0.00	Open	49.43	0.07	0.01	0.32
P-518	92.00	8.0	130.0	0.00	Open	40.58	0.05	0.00	0.26
P-519	300.00	8.0	130.0	0.00	Open	16.71	0.01	0.00	0.11
P-520	558.00	8.0	130.0	0.00	Open	4.61	0.00	0.00	0.03
P-521	359.00	8.0	130.0	0.00	Open	16.71	0.01	0.00	0.11
P-522	292.00	8.0	130.0	0.00	Open	-55.88	0.09	0.03	0.36
P-523	177.00	8.0	130.0	0.00	Open	59.81	0.10	0.02	0.38
P-524	193.00	8.0	130.0	0.00	Open	-27.55	0.02	0.00	0.18
P-525	407.00	8.0	130.0	0.00	Open	-40.15	0.05	0.02	0.26
P-526	172.00	8.0	130.0	0.00	Open	-54.15	0.08	0.01	0.35
P-527	188.00	8.0	130.0	0.00	Open	89.29	0.21	0.04	0.57
P-528	203.00	8.0	130.0	0.00	Open	5.60	0.00	0.00	0.04
P-529	295.00	8.0	130.0	0.00	Open	-149.04	0.54	0.16	0.95
P-530	432.00	10.0	130.0	0.00	Open	-520.09	1.84	0.79	2.12
P-531	265.00	8.0	130.0	0.00	Open	72.39	0.14	0.04	0.46
P-532	309.00	8.0	130.0	0.00	Open	-42.73	0.05	0.02	0.27
P-533	397.00	8.0	130.0	0.00	Open	-51.13	0.07	0.03	0.33
P-534	299.00	8.0	130.0	0.00	Open	130.71	0.42	0.13	0.83

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-535	295.00	8.0	130.0	0.00	Open	-3.30	0.00	0.00	0.02
P-536	297.00	8.0	130.0	0.00	Open	-13.10	0.01	0.00	0.08
P-537	284.00	8.0	130.0	0.00	Open	-103.92	0.28	0.08	0.66
P-538	475.00	8.0	130.0	0.00	Open	-71.22	0.14	0.07	0.45
P-539	276.00	8.0	130.0	0.00	Open	-79.62	0.17	0.05	0.51
P-540	864.00	8.0	130.0	0.00	Open	101.60	0.26	0.23	0.65
P-541	137.00	8.0	130.0	0.00	Open	-332.84	2.38	0.33	2.12
P-542	249.00	8.0	130.0	0.00	Open	-332.84	2.38	0.59	2.12
P-543	162.00	8.0	130.0	0.00	Open	-191.34	0.85	0.14	1.22
P-544	122.00	12.0	130.0	0.00	Open	586.25	0.94	0.12	1.66
P-545	287.00	12.0	130.0	0.00	Open	-785.99	1.62	0.47	2.23
P-546	400.00	8.0	130.0	0.00	Open	186.50	0.81	0.33	1.19
P-547	293.00	12.0	130.0	0.00	Open	-986.49	2.47	0.72	2.80
P-548	400.00	8.0	130.0	0.00	Open	351.69	2.64	1.05	2.24
P-549	137.00	8.0	130.0	0.00	Open	364.49	2.82	0.39	2.33
P-550	282.00	10.0	130.0	0.00	Open	621.69	2.55	0.72	2.54
P-551	209.00	8.0	130.0	0.00	Open	364.49	2.82	0.59	2.33
P-552	210.00	12.0	130.0	0.00	Open	1,345.18	4.39	0.92	3.82
P-553	299.00	8.0	130.0	0.00	Open	-22.59	0.02	0.00	0.14
P-554	281.00	8.0	130.0	0.00	Open	152.70	0.56	0.16	0.97
P-555	143.00	6.0	130.0	0.00	Open	-100.27	1.05	0.15	1.14
P-556	622.00	6.0	130.0	0.00	Open	71.37	0.56	0.35	0.81
P-557	147.00	8.0	130.0	0.00	Open	171.64	0.70	0.10	1.10
P-558	1,232.00	8.0	130.0	0.00	Open	171.64	0.70	0.86	1.10
P-559	325.00	8.0	130.0	0.00	Open	171.64	0.70	0.23	1.10
P-560	343.00	8.0	130.0	0.00	Open	114.78	0.33	0.11	0.73
P-560A	288.00	8.0	130.0	0.00	Open	89.58	0.21	0.06	0.57
P-570	269.00	10.0	130.0	0.00	Open	393.86	1.10	0.30	1.61
P-580	483.00	12.0	130.0	0.00	Open	261.94	0.21	0.10	0.74
P-600	376.00	8.0	130.0	0.00	Open	32.31	0.03	0.01	0.21
P-610	265.00	8.0	130.0	0.00	Open	-21.94	0.02	0.00	0.14
P-620	497.00	8.0	130.0	0.00	Open	18.93	0.01	0.01	0.12
P-630	208.00	6.0	130.0	0.00	Open	13.39	0.03	0.01	0.15
P-640	403.00	10.0	130.0	0.00	Open	-446.74	1.39	0.56	1.82
P-650	190.00	8.0	130.0	0.00	Open	73.35	0.14	0.03	0.47
P-660	545.00	8.0	130.0	0.00	Open	35.90	0.04	0.02	0.23
P-670	233.00	8.0	130.0	0.00	Open	-79.45	0.17	0.04	0.51
P-690	289.00	8.0	130.0	0.00	Open	-46.46	0.06	0.02	0.30
P-690A	101.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-700	1,031.00	8.0	130.0	0.00	Open	7.26	0.00	0.00	0.05
P-710	128.00	8.0	130.0	0.00	Open	-35.90	0.04	0.00	0.23
P-710A	105.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-720	393.00	10.0	130.0	0.00	Open	-686.69	3.07	1.21	2.81
P-730	203.00	8.0	130.0	0.00	Open	239.95	1.30	0.26	1.53
P-740	274.00	8.0	130.0	0.00	Open	95.54	0.24	0.06	0.61
P-750	206.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-760	266.00	6.0	130.0	0.00	Open	-15.29	0.03	0.01	0.17
P-770	421.00	8.0	130.0	0.00	Open	110.83	0.31	0.13	0.71
P-780	663.00	6.0	130.0	0.00	Open	42.11	0.21	0.14	0.48
P-790	147.00	6.0	130.0	0.00	Open	57.06	0.37	0.05	0.65
P-800	264.00	6.0	130.0	0.00	Open	87.01	0.81	0.21	0.99

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-810	273.00	8.0	130.0	0.00	Open	79.30	0.17	0.05	0.51
P-820	481.00	6.0	130.0	0.00	Open	-16.24	0.04	0.02	0.18
P-830	553.00	6.0	130.0	0.00	Open	69.51	0.53	0.29	0.79
P-840	244.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-850	776.00	10.0	130.0	0.00	Open	292.68	0.63	0.49	1.20
P-860	192.00	8.0	130.0	0.00	Open	-8.73	0.00	0.00	0.06
P-870	156.00	10.0	130.0	0.00	Open	-123.84	0.13	0.02	0.51
P-880	607.00	8.0	130.0	0.00	Open	-32.99	0.03	0.02	0.21
P-880A	268.00	8.0	130.0	0.00	Closed	0.00	0.00	0.00	0.00
P-890	279.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-900	192.00	8.0	130.0	0.00	Open	35.59	0.04	0.01	0.23
P-910	663.00	8.0	130.0	0.00	Open	35.59	0.04	0.03	0.23
P-920	375.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-930	227.00	8.0	130.0	0.00	Open	109.91	0.31	0.07	0.70
P-940	268.00	8.0	130.0	0.00	Open	109.91	0.31	0.08	0.70
P-950	214.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-960A	385.00	8.0	130.0	0.00	Open	-17.54	0.01	0.00	0.11
P-960B	484.00	8.0	130.0	0.00	Open	-17.54	0.01	0.00	0.11
P-970	515.00	6.0	130.0	0.00	Open	-32.15	0.13	0.07	0.36
P-980	267.00	6.0	130.0	0.00	Open	23.77	0.07	0.02	0.27
P-990	256.00	8.0	130.0	0.00	Open	9.17	0.00	0.00	0.06
P-1000	468.00	6.0	130.0	0.00	Open	-8.37	0.01	0.00	0.10
P-1000	136.00	6.0	130.0	0.00	Open	-17.54	0.04	0.01	0.20
P-1010	230.00	8.0	130.0	0.00	Open	109.43	0.30	0.07	0.70
P-1030	261.00	8.0	130.0	0.00	Open	141.58	0.49	0.13	0.90
P-1040	332.00	8.0	130.0	0.00	Open	145.75	0.52	0.17	0.93
P-1050	315.00	8.0	130.0	0.00	Open	35.59	0.04	0.01	0.23
P-1060	499.00	8.0	130.0	0.00	Open	122.54	0.37	0.19	0.78
P-1070	590.00	10.0	130.0	0.00	Open	257.09	0.50	0.29	1.05
P-1080	509.00	6.0	130.0	0.00	Open	-6.30	0.01	0.00	0.07
P-1090	188.00	8.0	130.0	0.00	Open	43.44	0.05	0.01	0.28
P-1100	533.00	8.0	130.0	0.00	Open	86.84	0.20	0.11	0.55
P-1110	211.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1120	456.00	8.0	130.0	0.00	Open	43.44	0.05	0.03	0.28
P-1130	295.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1140	211.00	10.0	130.0	0.00	Open	46.15	0.02	0.00	0.19
P-1145	509.00	10.0	130.0	0.00	Open	167.28	0.22	0.11	0.68
P-1150	199.00	8.0	130.0	0.00	Open	-105.45	0.28	0.06	0.67
P-1160	820.00	8.0	130.0	0.00	Open	-64.10	0.11	0.09	0.41
P-1170	286.00	8.0	130.0	0.00	Open	-69.45	0.13	0.04	0.44
P-1180	132.00	8.0	130.0	0.00	Open	118.55	0.35	0.05	0.76
P-1200	174.00	8.0	130.0	0.00	Open	126.95	0.40	0.07	0.81
P-1210	163.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1220	306.00	8.0	130.0	0.00	Open	-101.75	0.27	0.08	0.65
P-1230	249.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1240	777.00	8.0	130.0	0.00	Open	26.15	0.02	0.02	0.17
P-1250	505.00	6.0	130.0	0.00	Open	0.10	0.00	0.00	0.00
P-1260	263.00	6.0	130.0	0.00	Open	17.45	0.04	0.01	0.20
P-1270	189.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1280	818.00	6.0	130.0	0.00	Open	21.75	0.06	0.05	0.25
P-1290	259.00	6.0	130.0	0.00	Open	41.35	0.20	0.05	0.47

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-1300	188.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1320	294.00	16.0	130.0	0.00	Open	-1,441.34	1.23	0.36	2.30
P-1330	781.00	12.0	130.0	0.00	Open	-500.67	0.70	0.55	1.42
P-1340	1,202.00	8.0	130.0	40.00	Open	165.00	1.22	1.47	1.05
P-1350	838.00	8.0	130.0	40.00	Open	164.00	1.45	1.22	1.05
P-1360	717.00	10.0	130.0	0.00	Open	78.12	0.05	0.04	0.32
P-1370	301.00	12.0	130.0	0.00	Open	159.34	0.08	0.03	0.45
P-1380	491.00	16.0	130.0	0.00	Open	138.60	0.02	0.01	0.22
P-1440	926.00	12.0	130.0	0.00	Open	20.74	0.00	0.00	0.06
P-1450	819.00	12.0	130.0	0.00	Open	87.95	0.03	0.02	0.25
P-1460	425.00	6.0	130.0	0.00	Open	35.70	0.15	0.07	0.41
P-1470	613.00	6.0	130.0	0.00	Open	26.70	0.09	0.06	0.30
P-1490	513.00	8.0	130.0	0.00	Open	-7.32	0.00	0.00	0.05
P-1500	214.00	6.0	130.0	0.00	Open	-3.41	0.00	0.00	0.04
P-1510	515.00	8.0	130.0	0.00	Open	-89.58	0.21	0.11	0.57
P-1520	412.00	6.0	130.0	0.00	Open	26.80	0.09	0.04	0.30
P-1590	428.00	6.0	130.0	0.00	Open	4.61	0.00	0.00	0.05
P-1605	674.00	12.0	130.0	0.00	Open	-44.41	0.01	0.01	0.13
P-1620	364.00	12.0	130.0	0.00	Open	572.25	0.90	0.33	1.62
P-1640	209.00	8.0	130.0	0.00	Open	-55.45	0.09	0.02	0.35
P-1855	1,339.00	12.0	130.0	0.00	Open	124.80	0.05	0.07	0.35
P-1860	468.00	12.0	130.0	0.00	Open	87.95	0.03	0.01	0.25
P-1875	1,324.00	10.0	130.0	0.00	Open	124.80	0.13	0.17	0.51
P-1915	227.00	8.0	130.0	0.00	Open	-0.30	0.00	0.00	0.00
P-1920	465.00	8.0	130.0	0.00	Open	-13.59	0.01	0.00	0.09
P-1925	137.00	8.0	130.0	0.00	Open	1.81	0.00	0.00	0.01
P-1930	174.00	8.0	130.0	0.00	Open	-17.25	0.01	0.00	0.11
P-1935	238.00	8.0	130.0	0.00	Open	-36.85	0.04	0.01	0.24
P-1950	473.00	10.0	130.0	0.00	Open	-134.55	0.15	0.07	0.55
P-1955	350.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1960	325.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1965	460.00	8.0	130.0	0.00	Open	-15.43	0.01	0.00	0.10
P-1970	341.00	8.0	130.0	0.00	Open	-1.43	0.00	0.00	0.01
P-1975	424.00	8.0	130.0	0.00	Open	13.97	0.01	0.00	0.09
P-1980	255.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1985	258.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1990	258.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-1995	287.00	8.0	130.0	0.00	Open	54.32	0.08	0.02	0.35
P-2000	299.00	8.0	130.0	0.00	Open	-306.35	2.04	0.61	1.96
P-2005	306.00	8.0	130.0	0.00	Open	54.32	0.08	0.03	0.35
P-2010	1,308.00	8.0	130.0	0.00	Open	-39.85	0.05	0.06	0.25
P-2015	934.00	8.0	130.0	0.00	Open	-17.96	0.01	0.01	0.11
P-2020	299.00	8.0	130.0	0.00	Open	25.57	0.02	0.01	0.16
P-2025	296.00	8.0	130.0	0.00	Open	-13.28	0.01	0.00	0.08
P-2030	274.00	8.0	130.0	0.00	Open	57.12	0.09	0.02	0.36
P-2035	301.00	8.0	130.0	0.00	Open	19.84	0.01	0.00	0.13
P-2040	334.00	8.0	130.0	0.00	Open	91.75	0.22	0.07	0.59
P-2050	168.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2055	298.00	8.0	130.0	0.00	Open	36.37	0.04	0.01	0.23
P-2060	680.00	8.0	130.0	0.00	Open	107.15	0.29	0.20	0.68
P-2070	684.00	6.0	130.0	0.00	Open	16.43	0.04	0.03	0.19

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-2080	418.00	8.0	130.0	0.00	Open	3.55	0.00	0.00	0.02
P-2085	640.00	8.0	130.0	0.00	Open	-55.53	0.09	0.06	0.35
P-2090	748.00	6.0	130.0	0.00	Open	-3.18	0.00	0.00	0.04
P-2095	259.00	8.0	130.0	0.00	Open	140.65	0.48	0.13	0.90
P-2100	378.00	6.0	130.0	0.00	Open	-3.18	0.00	0.00	0.04
P-2110	349.00	8.0	130.0	0.00	Open	16.80	0.01	0.00	0.11
P-2120	954.00	8.0	130.0	0.00	Open	266.50	1.58	1.51	1.70
P-2130	903.00	6.0	130.0	0.00	Open	122.01	1.51	1.36	1.38
P-2135	554.00	10.0	130.0	0.00	Open	165.76	0.22	0.12	0.68
P-2140	388.00	6.0	130.0	0.00	Open	11.20	0.02	0.01	0.13
P-2145	444.00	6.0	130.0	0.00	Open	165.76	2.66	1.18	1.88
P-2150	302.00	6.0	130.0	0.00	Open	85.61	0.78	0.24	0.97
P-2155	187.00	8.0	130.0	0.00	Open	-172.08	0.70	0.13	1.10
P-2160	306.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2165	374.00	8.0	130.0	0.00	Open	313.28	2.13	0.80	2.00
P-2170	284.00	6.0	130.0	0.00	Open	70.21	0.54	0.15	0.80
P-2175	712.00	10.0	130.0	0.00	Open	259.35	0.51	0.36	1.06
P-2180	309.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2185	445.00	8.0	130.0	0.00	Open	93.59	0.23	0.10	0.60
P-2190	216.00	8.0	130.0	0.00	Open	202.88	0.95	0.21	1.29
P-2195	303.00	6.0	130.0	0.00	Open	-41.16	0.20	0.06	0.47
P-2200	320.00	8.0	130.0	0.00	Open	296.31	1.92	0.61	1.89
P-2205	364.00	6.0	130.0	0.00	Open	-41.16	0.20	0.07	0.47
P-2210	546.00	8.0	130.0	0.00	Open	408.16	3.47	1.90	2.61
P-2215	376.00	8.0	130.0	0.00	Open	146.32	0.52	0.20	0.93
P-2220	212.00	6.0	130.0	0.00	Open	-116.49	1.38	0.29	1.32
P-2225	303.00	6.0	130.0	0.00	Open	-41.16	0.20	0.06	0.47
P-2230	290.00	8.0	130.0	0.00	Open	524.66	5.53	1.60	3.35
P-2235	173.00	8.0	130.0	0.00	Open	330.08	2.34	0.41	2.11
P-2240	616.00	6.0	130.0	0.00	Open	45.00	0.24	0.15	0.51
P-2245	301.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2250	146.00	8.0	130.0	0.00	Open	171.90	0.70	0.10	1.10
P-2260	267.00	8.0	130.0	0.00	Open	-330.58	2.35	0.63	2.11
P-2265	823.00	10.0	130.0	0.00	Open	-165.98	0.22	0.18	0.68
P-2270	266.00	8.0	130.0	0.00	Open	312.90	2.12	0.56	2.00
P-2275	610.00	10.0	130.0	0.00	Open	-85.88	0.07	0.04	0.35
P-2280	318.00	8.0	130.0	0.00	Open	236.65	1.27	0.40	1.51
P-2290	450.00	8.0	130.0	0.00	Open	113.57	0.33	0.15	0.72
P-2300	343.00	8.0	130.0	0.00	Open	70.11	0.13	0.05	0.45
P-2305	281.00	8.0	130.0	0.00	Open	70.11	0.13	0.04	0.45
P-2310	383.00	8.0	130.0	0.00	Open	-200.02	0.93	0.36	1.28
P-2320	210.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2330	270.00	8.0	130.0	0.00	Open	174.82	0.72	0.20	1.12
P-2340	258.00	6.0	130.0	0.00	Open	54.75	0.34	0.09	0.62
P-2350	252.00	6.0	130.0	0.00	Open	-17.68	0.04	0.01	0.20
P-2360	395.00	8.0	130.0	0.00	Open	120.07	0.36	0.14	0.77
P-2370	416.00	8.0	130.0	0.00	Open	120.07	0.36	0.15	0.77
P-2380	141.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2390	273.00	8.0	130.0	0.00	Open	-94.87	0.23	0.06	0.61
P-2400	398.00	6.0	130.0	0.00	Open	-72.43	0.57	0.23	0.82
P-2410	408.00	6.0	130.0	0.00	Open	-27.63	0.10	0.04	0.31

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-2420	583.00	8.0	130.0	0.00	Open	-122.50	0.37	0.22	0.78
P-2430	458.00	8.0	130.0	0.00	Open	-90.30	0.21	0.10	0.58
P-2440	185.00	8.0	130.0	0.00	Open	76.25	0.16	0.03	0.49
P-2450	412.00	8.0	130.0	0.00	Open	-166.55	0.66	0.27	1.06
P-2460	726.00	8.0	130.0	0.00	Open	-114.75	0.33	0.24	0.73
P-2470	702.00	6.0	130.0	0.00	Open	-8.62	0.01	0.01	0.10
P-2490	292.00	8.0	130.0	0.00	Open	-71.13	0.14	0.04	0.45
P-2500	542.00	6.0	130.0	0.00	Open	21.25	0.06	0.03	0.24
P-2510	368.00	6.0	130.0	0.00	Open	39.23	0.18	0.07	0.45
P-2520	209.00	8.0	130.0	0.00	Open	123.08	0.38	0.08	0.79
P-2530	657.00	8.0	130.0	0.00	Open	-83.85	0.19	0.12	0.54
P-2540	104.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2550	481.00	8.0	130.0	0.00	Open	-48.85	0.07	0.03	0.31
P-2560	569.00	8.0	130.0	0.00	Open	-58.78	0.10	0.05	0.38
P-2570	261.00	8.0	130.0	0.00	Open	-72.63	0.14	0.04	0.46
P-2580	875.00	6.0	130.0	0.00	Open	-14.37	0.03	0.03	0.16
P-2590	550.00	8.0	130.0	0.00	Open	20.46	0.01	0.01	0.13
P-2600	480.00	6.0	130.0	0.00	Open	16.43	0.04	0.02	0.19
P-2610	259.00	8.0	130.0	0.00	Open	-4.03	0.00	0.00	0.03
P-2620	526.00	6.0	130.0	0.00	Open	-11.47	0.02	0.01	0.13
P-2630	560.00	6.0	130.0	0.00	Open	23.53	0.07	0.04	0.27
P-2640	500.00	8.0	130.0	0.00	Open	-42.44	0.05	0.03	0.27
P-2650	297.00	8.0	130.0	0.00	Open	19.98	0.01	0.00	0.13
P-2660	340.00	8.0	130.0	0.00	Open	43.51	0.05	0.02	0.28
P-2670	299.00	6.0	130.0	0.00	Open	-22.45	0.07	0.02	0.25
P-2680	386.00	6.0	130.0	0.00	Open	-43.45	0.22	0.09	0.49
P-2690	211.00	6.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-2700	703.00	8.0	130.0	0.00	Open	119.75	0.36	0.25	0.76
P-2730	303.00	8.0	130.0	0.00	Open	19.98	0.01	0.00	0.13
P-3000	1,498.00	12.0	130.0	0.00	Open	-1,223.38	3.68	5.52	3.47
P-3010	1,472.00	12.0	130.0	0.00	Open	-877.19	1.99	2.93	2.49
P-3020	373.00	12.0	130.0	0.00	Open	2,083.98	9.87	3.68	5.91
P-3025	126.00	12.0	130.0	0.00	Open	2,083.98	9.87	1.24	5.91
P-3030	248.00	8.0	130.0	0.00	Open	860.60	13.83	3.43	5.49
P-3040	292.00	8.0	130.0	0.00	Open	504.23	5.14	1.50	3.22
P-3050	303.00	8.0	130.0	0.00	Open	-296.17	1.92	0.58	1.89
P-3060	368.00	8.0	130.0	0.00	Open	-120.76	0.36	0.13	0.77
P-3070	271.00	8.0	130.0	0.00	Open	-296.17	1.92	0.52	1.89
P-3080	257.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3090	192.00	8.0	130.0	0.00	Open	-184.17	0.80	0.15	1.18
P-3095	467.00	8.0	130.0	0.00	Open	-120.76	0.36	0.17	0.77
P-3100	286.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3110	207.00	8.0	130.0	0.00	Open	-184.17	0.80	0.16	1.18
P-3120	536.00	12.0	130.0	0.00	Open	-500.67	0.70	0.38	1.42
P-3130	645.00	12.0	130.0	0.00	Open	316.51	0.30	0.19	0.90
P-3140	305.00	8.0	130.0	0.00	Open	129.15	0.41	0.13	0.82
P-3150	158.00	8.0	130.0	0.00	Open	108.90	0.30	0.05	0.70
P-3160	673.00	8.0	130.0	0.00	Open	828.80	12.90	8.68	5.29
P-3170	234.00	8.0	130.0	0.00	Open	37.68	0.04	0.01	0.24
P-3180	685.00	8.0	130.0	0.00	Open	56.00	0.09	0.06	0.36
P-3190	812.00	8.0	130.0	0.00	Open	-15.18	0.01	0.01	0.10

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Minor Loss Coefficient	Control Status	Discharge (gpm)	Headloss Gradient (ft/1000ft)	Pressure Pipe Headloss (ft)	Velocity (ft/s)
P-3200	249.00	8.0	130.0	0.00	Open	40.82	0.05	0.01	0.26
P-3210	188.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3220	747.00	8.0	130.0	0.00	Open	-15.18	0.01	0.01	0.10
P-3240	141.00	8.0	130.0	0.00	Open	-147.47	0.53	0.07	0.94
P-3250	161.00	8.0	130.0	0.00	Open	-81.91	0.18	0.03	0.52
P-3260	440.00	8.0	130.0	0.00	Open	-117.82	0.35	0.15	0.75
P-3270	290.00	8.0	130.0	0.00	Open	131.36	0.43	0.12	0.84
P-3290	293.00	8.0	130.0	0.00	Open	-61.82	0.11	0.03	0.39
P-3300	175.00	8.0	130.0	0.00	Open	213.05	1.04	0.18	1.36
P-3310	649.00	6.0	130.0	0.00	Open	81.69	0.72	0.47	0.93
P-3325	144.00	8.0	130.0	0.00	Open	216.74	1.08	0.15	1.38
P-3330	273.00	8.0	130.0	0.00	Open	385.47	3.13	0.85	2.46
P-3340	328.00	8.0	130.0	0.00	Open	16.10	0.01	0.00	0.10
P-3350	170.00	8.0	130.0	0.00	Open	107.83	0.30	0.05	0.69
P-3360	291.00	8.0	130.0	0.00	Open	29.60	0.03	0.01	0.19
P-3370	752.00	8.0	130.0	0.00	Open	64.60	0.11	0.09	0.41
P-3380	327.00	6.0	130.0	0.00	Open	-44.31	0.23	0.08	0.50
P-3390	305.00	8.0	130.0	0.00	Open	51.50	0.08	0.02	0.33
P-3400	412.00	8.0	130.0	0.00	Open	-21.58	0.01	0.01	0.14
P-3410	369.00	6.0	130.0	0.00	Open	12.06	0.02	0.01	0.14
P-3420	290.00	8.0	130.0	0.00	Open	-296.17	1.92	0.56	1.89
P-3430	175.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3440	288.00	8.0	130.0	0.00	Open	-63.41	0.11	0.03	0.40
P-3450	279.00	8.0	130.0	0.00	Open	0.00	0.00	0.00	0.00
P-3460	634.00	8.0	130.0	0.00	Open	-132.01	0.43	0.27	0.84
P-3470	466.00	12.0	130.0	0.00	Open	-1,036.02	2.71	1.26	2.94
P-3480	211.00	8.0	130.0	0.00	Open	47.25	0.06	0.01	0.30
P-3490	283.00	8.0	130.0	0.00	Open	31.50	0.03	0.01	0.20
P-3500	292.00	6.0	130.0	0.00	Open	-21.91	0.06	0.02	0.25
P-3510	490.00	6.0	130.0	0.00	Open	42.86	0.22	0.11	0.49
P-3530	702.00	8.0	130.0	0.00	Open	172.42	0.70	0.49	1.10
P-3540	576.00	6.0	130.0	0.00	Open	20.09	0.05	0.03	0.23
P-3550	705.00	8.0	130.0	0.00	Open	131.36	0.43	0.30	0.84
P-3620	958.00	8.0	130.0	0.00	Open	-64.98	0.12	0.11	0.41
P-5000	182.00	8.0	130.0	0.00	Open	108.19	0.30	0.05	0.69

Scenario: Peak Hour, 50 psig at Hydro Tank, P-484 Closed
Steady State Analysis
Reservoir Report

Label	Elevation (ft)	Inflow (gpm)	Calculated Hydraulic Grade (ft)	Outflow (gpm)
R-1	275.00	-2,786.52	275.00	2,786.52
R-2	275.00	-2,912.78	275.00	2,912.78
R-3	275.00	-0.00	275.00	0.00
R-4	275.00	-0.00	275.00	0.00

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-1	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.47	42.76	J-1010
J-2	true	true	1,000.00	3,000.00	1,000.00	3,000.00	41.33	38.30	J-33
J-3	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.91	37.59	J-18
J-5	true	true	1,000.00	3,000.00	1,000.00	3,000.00	35.73	34.91	J-9
J-6	true	true	1,000.00	2,000.00	1,000.00	2,000.00	57.06	43.50	J-1010
J-7	true	true	1,000.00	3,000.00	1,012.00	3,012.00	30.84	30.85	J-9
J-8	true	true	1,000.00	2,856.07	1,012.00	2,868.07	20.00	20.00	J-9
J-9	true	true	1,000.00	2,433.90	1,008.80	2,442.70	20.00	30.62	J-8
J-10	true	true	1,000.00	3,000.00	1,000.00	3,000.00	52.59	41.79	J-1010
J-11	true	true	1,000.00	2,804.69	1,000.00	2,804.69	20.00	20.52	J-12
J-12	true	true	1,000.00	2,397.60	1,000.00	2,397.60	20.00	30.66	J-11
J-13	true	true	1,000.00	2,946.39	1,010.40	2,956.79	20.00	23.34	J-11
J-14	true	true	1,000.00	3,000.00	1,010.40	3,010.40	24.52	25.51	J-13
J-15	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.76	34.99	J-13
J-16	true	true	1,000.00	3,000.00	1,011.20	3,011.20	32.50	35.77	J-17
J-17	true	true	1,000.00	3,000.00	1,014.40	3,014.40	31.53	35.84	J-16
J-18	true	true	1,000.00	3,000.00	1,000.00	3,000.00	30.80	32.01	J-19
J-19	true	true	1,000.00	3,000.00	1,046.88	3,046.88	26.76	30.37	J-21
J-20	true	true	1,000.00	3,000.00	1,034.38	3,034.38	51.03	42.75	J-1010
J-21	true	true	1,000.00	3,000.00	1,000.00	3,000.00	25.55	28.76	J-23
J-22	true	true	1,000.00	3,000.00	1,000.00	3,000.00	25.94	25.26	J-23
J-23	true	true	1,000.00	3,000.00	1,050.00	3,050.00	22.19	26.62	J-22
J-24	true	true	1,000.00	3,000.00	1,000.00	3,000.00	26.31	25.31	J-23
J-25	true	true	1,000.00	3,000.00	1,000.00	3,000.00	28.54	29.32	J-23
J-26	true	true	1,000.00	3,000.00	1,000.00	3,000.00	24.01	25.01	J-27
J-27	true	true	1,000.00	3,000.00	1,018.12	3,018.12	20.61	23.24	J-28
J-28	true	true	1,000.00	2,983.82	1,000.00	2,983.82	20.00	22.01	J-29
J-29	true	true	1,000.00	2,982.84	1,028.12	3,010.96	20.00	22.05	J-28
J-30	true	true	1,000.00	3,000.00	1,000.00	3,000.00	52.42	40.73	J-1010
J-31	true	true	1,000.00	3,000.00	1,000.00	3,000.00	20.83	23.90	J-32
J-32	true	true	1,000.00	3,000.00	1,000.00	3,000.00	22.39	23.50	J-31
J-33	true	true	1,000.00	3,000.00	1,038.12	3,038.12	23.68	26.89	J-32
J-34	true	true	1,000.00	3,000.00	1,000.00	3,000.00	33.93	31.86	J-33
J-35	true	true	1,000.00	3,000.00	1,020.62	3,020.62	25.92	29.08	J-36
J-36	true	true	1,000.00	3,000.00	1,000.00	3,000.00	27.12	28.75	J-35
J-37	true	true	1,000.00	3,000.00	1,018.12	3,018.12	30.10	30.16	J-36
J-39	true	true	1,000.00	3,000.00	1,031.26	3,031.26	41.31	40.39	J-41
J-40	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.17	41.69	J-1010
J-40A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.93	41.99	J-1010
J-41	true	true	1,000.00	3,000.00	1,010.00	3,010.00	35.80	36.23	J-298
J-42	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.12	42.78	J-1010
J-43	true	true	1,000.00	3,000.00	1,010.00	3,010.00	46.49	42.78	J-1010
J-44	true	true	1,000.00	3,000.00	1,020.00	3,020.00	45.46	42.78	J-1010
J-45	true	true	1,000.00	3,000.00	1,000.00	3,000.00	37.27	38.01	J-46
J-46	true	true	1,000.00	3,000.00	1,021.26	3,021.26	34.01	36.09	J-47
J-47	true	true	1,000.00	3,000.00	1,000.00	3,000.00	31.26	33.66	J-48
J-48	true	true	1,000.00	3,000.00	1,027.50	3,027.50	29.49	32.16	J-296
J-50	true	true	1,000.00	3,000.00	1,018.00	3,018.00	50.33	42.57	J-1010
J-52	true	true	1,000.00	3,000.00	1,035.00	3,035.00	30.69	33.11	J-296
J-55	true	true	1,000.00	3,000.00	1,000.00	3,000.00	57.01	41.81	J-2470

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-60	true	true	1,000.00	3,000.00	1,000.00	3,000.00	47.43	42.16	J-1010
J-65	true	true	1,000.00	3,000.00	1,008.00	3,008.00	47.62	42.20	J-2470
J-70	true	true	1,000.00	3,000.00	1,000.00	3,000.00	47.46	42.28	J-1010
J-75	true	true	1,500.00	3,000.00	1,508.00	3,008.00	50.09	42.54	J-2470
J-80	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.25	42.24	J-1010
J-90	true	true	1,000.00	3,000.00	1,038.40	3,038.40	43.12	42.10	J-1010
J-100	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.37	41.92	J-1010
J-110	true	true	1,000.00	3,000.00	1,043.20	3,043.20	35.68	41.99	J-1010
J-120	true	true	1,000.00	3,000.00	1,000.00	3,000.00	29.45	38.52	J-140
J-130	true	true	1,000.00	3,000.00	1,031.20	3,031.20	37.43	37.30	J-140
J-130A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	38.13	38.80	J-120
J-140	true	true	1,000.00	2,877.31	1,000.00	2,877.31	20.00	38.54	J-130
J-150	true	true	1,000.00	3,000.00	1,000.00	3,000.00	40.64	40.26	J-160
J-160	true	true	1,000.00	2,269.76	1,000.00	2,269.76	20.01	43.00	J-1010
J-170	true	true	1,000.00	3,000.00	1,000.00	3,000.00	46.95	42.31	J-1010
J-180	true	true	1,000.00	3,000.00	1,000.00	3,000.00	53.57	43.40	J-1010
J-190	true	true	1,000.00	3,000.00	1,000.00	3,000.00	52.27	43.19	J-1010
J-200	true	true	1,000.00	3,000.00	1,028.80	3,028.80	51.61	43.64	J-1010
J-210	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.20	43.45	J-1010
J-220	true	true	1,000.00	3,000.00	1,000.00	3,000.00	41.66	42.15	J-230
J-230	true	true	1,000.00	2,180.65	1,000.00	2,180.65	20.01	20.14	J-270
J-240	true	true	1,000.00	3,000.00	1,033.60	3,033.60	38.09	40.71	J-230
J-250	true	true	1,000.00	2,254.91	1,032.00	2,286.91	20.00	20.49	J-260
J-260	true	true	1,000.00	1,562.91	1,000.00	1,562.91	20.00	36.83	J-250
J-270	true	true	1,000.00	1,693.97	1,000.00	1,693.97	20.00	32.57	J-230
J-280	true	true	1,000.00	3,000.00	1,019.20	3,019.20	40.33	40.02	J-290
J-290	true	true	1,000.00	2,454.69	1,000.00	2,454.69	20.01	43.09	J-1010
J-296	true	true	1,000.00	3,000.00	1,000.00	3,000.00	29.09	32.27	J-48
J-298	true	true	1,000.00	3,000.00	1,000.00	3,000.00	32.11	35.26	J-52
J-300	true	true	1,000.00	3,000.00	1,000.00	3,000.00	37.54	38.68	J-400
J-302	true	true	1,000.00	3,000.00	1,000.00	3,000.00	47.18	42.78	J-1010
J-306	true	true	1,000.00	3,000.00	1,000.00	3,000.00	39.45	38.75	J-9
J-310	true	true	1,000.00	3,000.00	1,017.60	3,017.60	39.68	40.36	J-300
J-320	true	true	1,000.00	3,000.00	1,008.00	3,008.00	44.68	42.24	J-1010
J-330	true	true	1,000.00	3,000.00	1,024.00	3,024.00	37.35	40.38	J-335
J-335	true	true	1,000.00	2,619.08	1,011.20	2,630.28	20.00	41.19	J-340
J-340	true	true	1,000.00	3,000.00	1,000.00	3,000.00	26.98	34.87	J-335
J-344	true	true	1,000.00	3,000.00	1,000.00	3,000.00	57.95	44.63	J-1010
J-345	true	true	1,000.00	3,000.00	1,000.00	3,000.00	61.96	44.65	J-1010
J-346	true	true	1,000.00	3,000.00	1,000.00	3,000.00	83.68	44.66	J-1010
J-347	true	true	1,000.00	3,000.00	1,000.00	3,000.00	32.12	31.69	J-407
J-348	true	true	1,000.00	3,000.00	1,000.00	3,000.00	33.72	33.28	J-407
J-349	true	true	1,000.00	1,636.09	1,004.98	1,641.07	20.01	42.44	J-372
J-350	true	true	1,000.00	3,000.00	1,007.20	3,007.20	27.88	30.64	J-355
J-351	true	true	1,000.00	3,000.00	1,004.98	3,004.98	30.25	36.44	J-372
J-352	true	true	1,000.00	3,000.00	1,004.98	3,004.98	41.74	43.34	J-1010
J-353	true	true	1,000.00	2,602.07	1,004.98	2,607.05	20.00	32.56	J-373
J-354	true	true	1,000.00	1,912.18	1,004.98	1,917.16	20.00	38.85	J-374
J-355	true	true	1,000.00	2,798.69	1,000.00	2,798.69	20.00	32.52	J-410
J-356	true	true	1,000.00	1,719.45	1,004.98	1,724.43	20.01	39.51	J-371

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-357	true	true	1,000.00	1,493.04	1,004.98	1,498.02	20.01	29.28	J-379
J-358	true	true	1,000.00	2,745.54	1,004.98	2,750.52	20.00	20.46	J-367
J-359	true	true	1,000.00	2,088.31	1,004.98	2,093.29	20.00	25.04	J-361
J-360	true	true	1,000.00	3,000.00	1,022.40	3,022.40	24.77	25.05	J-360A
J-360A	true	true	1,000.00	2,954.69	1,000.00	2,954.69	20.00	25.66	J-360
J-361	true	true	1,000.00	1,266.80	1,004.98	1,271.78	20.00	41.27	J-362
J-362	true	true	1,000.00	1,865.32	1,004.98	1,870.30	20.43	20.00	J-361
J-363	true	true	1,000.00	1,889.91	1,004.98	1,894.89	20.00	21.97	J-364
J-364	true	true	1,000.00	1,542.81	1,004.98	1,547.79	20.01	26.05	J-367
J-365	true	true	1,000.00	3,000.00	1,023.00	3,023.00	21.07	31.13	J-360
J-365A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	32.14	38.04	J-750A
J-366	true	true	1,000.00	1,970.45	1,004.98	1,975.43	20.00	20.81	J-367
J-367	true	true	1,000.00	1,532.17	1,004.98	1,537.15	20.01	26.88	J-364
J-368	true	true	1,000.00	2,605.79	1,004.98	2,610.77	20.00	22.40	J-359
J-369	true	true	1,000.00	2,708.80	1,004.98	2,713.78	20.00	23.98	J-371
J-370	true	true	1,000.00	3,000.00	1,019.40	3,019.40	35.88	37.69	J-390
J-371	true	true	1,000.00	2,394.71	1,004.98	2,399.69	20.00	20.22	J-356
J-372	true	true	1,000.00	2,423.45	1,004.98	2,428.43	20.00	20.22	J-349
J-373	true	true	1,000.00	2,988.59	1,004.98	2,993.57	20.00	21.91	J-353
J-374	true	true	1,000.00	2,630.12	1,004.98	2,635.10	20.00	20.32	J-354
J-375	true	true	1,000.00	2,669.14	1,004.98	2,674.12	20.00	23.04	J-376
J-376	true	true	1,000.00	2,383.01	1,004.98	2,387.99	20.00	20.35	J-377
J-377	true	true	1,000.00	1,399.25	1,004.98	1,404.23	20.00	44.05	J-1010
J-378	true	true	1,000.00	2,267.29	1,004.98	2,272.27	20.00	20.13	J-379
J-379	true	true	1,000.00	1,700.51	1,004.98	1,705.49	20.01	20.10	J-357
J-380	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.42	43.19	J-1010
J-381	true	true	1,000.00	3,000.00	1,016.00	3,016.00	36.87	38.34	J-382
J-382	true	true	1,000.00	3,000.00	1,016.00	3,016.00	27.79	30.08	J-383
J-383	true	true	1,000.00	2,993.10	1,016.00	3,009.10	20.00	27.95	J-382
J-384	true	true	1,000.00	3,000.00	1,000.00	3,000.00	21.06	44.66	J-1010
J-385	true	true	1,500.00	3,000.00	1,506.40	3,006.40	38.22	39.24	J-424
J-386	true	true	1,500.00	3,000.00	1,507.20	3,007.20	39.31	40.92	J-423
J-387	true	true	1,000.00	3,000.00	1,010.40	3,010.40	41.81	42.51	J-2470
J-388	true	true	1,000.00	3,000.00	1,000.00	3,000.00	42.27	44.50	J-1010
J-389	true	true	1,500.00	3,000.00	1,504.00	3,004.00	42.48	42.56	J-2470
J-390	true	true	1,000.00	3,000.00	1,010.40	3,010.40	31.04	33.38	J-350
J-392	true	true	1,500.00	2,000.00	1,502.40	2,002.40	45.55	43.75	J-1010
J-394	true	true	1,500.00	2,000.00	1,504.80	2,004.80	47.83	43.70	J-2470
J-395	true	true	1,000.00	3,000.00	1,002.40	3,002.40	38.50	38.59	J-418
J-396	true	true	2,500.00	3,000.00	2,545.98	3,045.98	40.78	41.57	J-2470
J-397	true	true	1,000.00	3,000.00	1,006.40	3,006.40	44.52	42.54	J-2470
J-398	true	true	1,000.00	3,000.00	1,000.00	3,000.00	46.99	42.12	J-2470
J-399	true	true	1,000.00	3,000.00	1,000.00	3,000.00	44.62	40.51	J-2470
J-400	true	true	1,000.00	3,000.00	1,006.40	3,006.40	32.32	33.62	J-410
J-401	true	true	1,500.00	3,000.00	1,504.80	3,004.80	49.17	42.66	J-2470
J-402	true	true	1,000.00	3,000.00	1,008.00	3,008.00	50.70	43.19	J-2470
J-403	true	true	1,500.00	2,000.00	1,503.20	2,003.20	49.58	43.56	J-2470
J-404	true	true	2,500.00	3,000.00	2,506.26	3,006.26	40.96	40.54	J-2470
J-405	true	true	2,500.00	3,000.00	2,506.58	3,006.58	40.23	40.33	J-2470
J-406	true	true	1,000.00	3,000.00	1,000.00	3,000.00	100.77	44.66	J-1010

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-407	true	true	1,000.00	3,000.00	1,000.00	3,000.00	26.61	32.12	J-347
J-408	true	true	1,500.00	3,000.00	1,506.40	3,006.40	48.15	42.82	J-2470
J-409	true	true	1,500.00	3,000.00	1,504.00	3,004.00	52.66	43.83	J-1010
J-410	true	true	1,000.00	3,000.00	1,008.80	3,008.80	28.15	29.40	J-355
J-411	true	true	1,500.00	3,000.00	1,505.60	3,005.60	48.04	43.09	J-2470
J-412	true	true	1,500.00	3,000.00	1,500.00	3,000.00	45.96	42.86	J-2470
J-413	true	true	1,000.00	3,000.00	1,012.16	3,012.16	44.42	39.88	J-2470
J-414	true	true	1,500.00	3,000.00	1,504.80	3,004.80	45.40	42.44	J-2470
J-415	true	true	1,500.00	3,000.00	1,507.20	3,007.20	37.24	41.78	J-2470
J-416	true	true	1,500.00	3,000.00	1,508.00	3,008.00	39.69	41.30	J-415
J-417	true	true	1,500.00	3,000.00	1,503.20	3,003.20	43.58	42.11	J-2470
J-418	true	true	1,500.00	3,000.00	1,503.20	3,003.20	26.29	38.50	J-395
J-419	true	true	1,500.00	3,000.00	1,506.40	3,006.40	39.60	41.84	J-421
J-420	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.96	42.99	J-1010
J-421	true	true	1,500.00	3,000.00	1,504.80	3,004.80	36.79	41.71	J-419
J-422	true	true	1,500.00	3,000.00	1,506.40	3,006.40	39.28	40.61	J-423
J-423	true	true	1,500.00	3,000.00	1,505.60	3,005.60	36.09	40.81	J-386
J-424	true	true	1,500.00	3,000.00	1,503.20	3,003.20	36.70	38.36	J-392
J-425	true	true	1,000.00	3,000.00	1,007.30	3,007.30	41.47	41.03	J-2470
J-426	true	true	2,500.00	3,000.00	2,500.00	3,000.00	35.94	39.76	J-427
J-427	true	true	2,500.00	3,000.00	2,513.64	3,013.64	35.96	37.95	J-428
J-428	true	true	1,000.00	3,000.00	1,005.06	3,005.06	36.81	37.74	J-427
J-429	true	true	1,000.00	3,000.00	1,005.06	3,005.06	39.52	40.45	J-2470
J-430	true	true	1,000.00	3,000.00	1,015.20	3,015.20	39.13	41.62	J-480
J-431	true	true	2,500.00	3,000.00	2,500.00	3,000.00	39.04	40.23	J-407
J-433	true	true	2,500.00	3,000.00	2,500.00	3,000.00	39.67	39.40	J-407
J-434	true	true	1,000.00	3,000.00	1,000.00	3,000.00	40.92	38.75	J-407
J-435	true	true	1,000.00	3,000.00	1,014.40	3,014.40	39.40	42.01	J-435A
J-435A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.84	42.28	J-435
J-436	true	true	2,500.00	3,000.00	2,528.74	3,028.74	37.03	40.51	J-2470
J-437	true	true	2,500.00	3,000.00	2,507.30	3,007.30	37.84	40.55	J-2470
J-438	true	true	1,000.00	3,000.00	1,000.00	3,000.00	42.13	40.13	J-407
J-439	true	true	1,500.00	3,000.00	1,500.00	3,000.00	31.23	34.80	J-392
J-440	true	true	1,000.00	3,000.00	1,019.20	3,019.20	49.36	42.94	J-1010
J-441	true	true	1,500.00	3,000.00	1,500.00	3,000.00	34.39	42.81	J-442
J-442	true	true	1,500.00	3,000.00	1,500.00	3,000.00	39.48	41.28	J-441
J-450	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.29	42.92	J-1010
J-450A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.22	42.93	J-1010
J-470	true	true	1,000.00	3,000.00	1,006.40	3,006.40	36.90	38.26	J-485
J-475	true	true	1,000.00	3,000.00	1,015.00	3,015.00	30.24	37.70	J-480
J-480	true	true	1,000.00	3,000.00	1,000.00	3,000.00	34.82	37.54	J-485
J-485	true	true	1,000.00	3,000.00	1,009.60	3,009.60	23.71	37.77	J-480
J-490	true	true	1,000.00	3,000.00	1,000.00	3,000.00	35.14	34.42	J-360
J-500	true	true	1,000.00	3,000.00	1,011.20	3,011.20	46.21	43.16	J-1010
J-510	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.23	43.13	J-1010
J-520	true	true	1,000.00	3,000.00	1,000.00	3,000.00	42.73	42.73	J-520A
J-520A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.38	42.73	J-520
J-530	true	true	1,000.00	3,000.00	1,024.80	3,024.80	38.88	43.17	J-1010
J-540	true	true	1,000.00	3,000.00	1,000.00	3,000.00	40.75	41.22	J-550
J-550	true	true	1,000.00	1,811.56	1,000.00	1,811.56	20.01	40.41	J-560

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-560	true	true	1,000.00	2,830.74	1,032.80	2,863.54	20.54	20.00	J-550
J-570	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.14	43.18	J-1010
J-580	true	true	1,000.00	3,000.00	1,026.40	3,026.40	39.66	43.17	J-1010
J-590	true	true	1,000.00	3,000.00	1,000.00	3,000.00	40.85	43.17	J-1010
J-600	true	true	1,000.00	1,651.08	1,000.00	1,651.08	20.00	40.34	J-610
J-610	true	true	1,000.00	2,603.53	1,010.40	2,613.93	20.52	20.00	J-600
J-620	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.80	42.86	J-1010
J-630	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.20	42.82	J-1010
J-635	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.30	42.79	J-1010
J-640	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.72	42.86	J-1010
J-650	true	true	1,000.00	1,982.89	1,000.00	1,982.89	20.00	43.58	J-1010
J-660	true	true	1,000.00	3,000.00	1,000.00	3,000.00	41.30	40.79	J-670
J-670	true	true	1,000.00	1,734.84	1,000.00	1,734.84	20.01	43.75	J-1010
J-680	true	true	1,000.00	3,000.00	1,039.20	3,039.20	40.36	42.33	J-365A
J-700	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.51	42.92	J-1010
J-710	true	true	1,000.00	2,232.16	1,000.00	2,232.16	20.00	43.46	J-1010
J-720	true	true	1,000.00	3,000.00	1,000.00	3,000.00	42.89	42.96	J-1010
J-730	true	true	1,000.00	3,000.00	1,000.00	3,000.00	42.34	42.95	J-1010
J-740	true	true	1,000.00	3,000.00	1,000.00	3,000.00	32.33	42.95	J-1010
J-750	true	true	1,000.00	3,000.00	1,000.00	3,000.00	39.61	42.50	J-750A
J-750A	true	true	1,000.00	3,000.00	1,000.00	3,000.00	32.60	36.87	J-365A
J-760	true	true	1,000.00	3,000.00	1,038.40	3,038.40	44.78	42.94	J-1010
J-770	true	true	1,000.00	3,000.00	1,033.60	3,033.60	45.86	42.89	J-1010
J-780	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.96	42.86	J-1010
J-785	true	true	1,000.00	2,918.10	1,024.00	2,942.10	20.00	42.90	J-1010
J-790	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.39	42.83	J-1010
J-800	true	true	1,000.00	2,227.32	1,000.00	2,227.32	20.00	43.40	J-1010
J-810	true	true	1,000.00	3,000.00	1,024.80	3,024.80	40.40	40.51	J-800
J-820	true	true	1,000.00	2,008.48	1,000.00	2,008.48	20.00	43.53	J-1010
J-830	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.14	42.83	J-1010
J-840	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.93	42.78	J-1010
J-845	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.69	42.78	J-1010
J-850	true	true	1,000.00	3,000.00	1,000.00	3,000.00	39.37	42.68	J-960
J-860	true	true	1,000.00	3,000.00	1,041.60	3,041.60	32.25	34.48	J-960
J-870	true	true	1,000.00	3,000.00	1,003.20	3,003.20	33.14	33.70	J-945
J-880	true	true	1,000.00	3,000.00	1,004.80	3,004.80	43.53	42.81	J-1010
J-890	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.93	42.82	J-1010
J-900	true	true	1,000.00	2,516.19	1,000.00	2,516.19	20.00	43.17	J-1010
J-910	true	true	1,000.00	3,000.00	1,009.60	3,009.60	39.78	39.50	J-920
J-920	true	true	1,000.00	2,047.92	1,000.00	2,047.92	20.00	43.49	J-1010
J-930	true	true	1,000.00	3,000.00	1,016.80	3,016.80	29.65	32.09	J-945
J-935	true	true	1,000.00	3,000.00	1,008.00	3,008.00	29.24	32.38	J-930
J-940	true	true	1,000.00	1,843.75	1,000.00	1,843.75	20.00	38.01	J-960
J-945	true	true	1,000.00	2,292.61	1,015.20	2,307.81	20.00	43.32	J-1010
J-950	true	true	1,000.00	2,737.17	1,011.20	2,748.37	20.00	20.13	J-970
J-960	true	true	1,000.00	2,554.96	1,022.40	2,577.36	20.00	20.83	J-940
J-970	true	true	1,000.00	1,924.36	1,000.00	1,924.36	20.00	40.15	J-950
J-980	true	true	1,000.00	3,000.00	1,000.00	3,000.00	54.39	44.12	J-1010
J-990	true	true	1,000.00	3,000.00	1,000.00	3,000.00	52.40	41.21	J-1010
J-1000	true	true	1,500.00	2,000.00	1,688.00	2,188.00	31.80	41.78	J-1010

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-1010	true	true	1,000.00	3,000.00	1,000.00	3,000.00	35.76	43.52	J-2470
J-1020	true	true	1,000.00	3,000.00	1,000.00	3,000.00	50.22	40.86	J-1010
J-1030	true	true	1,500.00	2,000.00	1,579.20	2,079.20	52.09	42.52	J-1010
J-1070	true	true	1,500.00	2,000.00	1,500.00	2,000.00	51.62	42.40	J-1010
J-1080	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.37	41.27	J-1010
J-1120	true	true	1,000.00	3,000.00	1,000.00	3,000.00	57.63	44.50	J-1010
J-1330	true	true	1,000.00	3,000.00	1,000.00	3,000.00	46.26	40.11	J-1010
J-1335	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.17	40.38	J-1010
J-1345	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.82	39.92	J-1010
J-1370	true	true	1,000.00	3,000.00	1,045.60	3,045.60	45.32	38.32	J-1010
J-1380	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.11	39.14	J-1010
J-1385	true	true	1,000.00	3,000.00	1,008.80	3,008.80	39.72	39.33	J-1415
J-1390	true	true	1,000.00	3,000.00	1,000.00	3,000.00	40.90	39.68	J-1010
J-1395	true	true	1,000.00	3,000.00	1,011.20	3,011.20	41.29	39.89	J-1010
J-1405	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.68	39.47	J-1010
J-1410	true	true	1,000.00	2,986.87	1,000.00	2,986.87	20.00	39.92	J-1010
J-1415	true	true	1,000.00	1,708.71	1,000.00	1,708.71	20.00	42.47	J-1010
J-1420	true	true	1,000.00	3,000.00	1,008.00	3,008.00	32.16	32.37	J-1435
J-1425	true	true	1,000.00	3,000.00	1,008.80	3,008.80	30.27	30.22	J-1440
J-1430	true	true	1,500.00	2,000.00	1,512.80	2,012.80	43.43	41.82	J-1010
J-1435	true	true	1,000.00	1,830.87	1,000.00	1,830.87	20.01	42.24	J-1010
J-1440	true	true	1,000.00	1,797.47	1,000.00	1,797.47	20.00	42.27	J-1010
J-1445	true	true	1,000.00	1,817.14	1,000.00	1,817.14	20.00	42.20	J-1010
J-1450	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.51	39.31	J-1010
J-1455	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.25	38.32	J-1445
J-1460	true	true	1,000.00	3,000.00	1,021.60	3,021.60	33.54	39.29	J-1010
J-1465	true	true	1,000.00	3,000.00	1,012.80	3,012.80	40.67	39.27	J-1010
J-1475	true	true	1,000.00	3,000.00	1,017.60	3,017.60	42.48	39.28	J-1010
J-1490	true	true	1,000.00	3,000.00	1,000.00	3,000.00	44.02	40.33	J-1010
J-1495	true	true	1,000.00	3,000.00	1,004.80	3,004.80	47.99	41.15	J-1010
J-1500	true	true	1,000.00	3,000.00	1,009.60	3,009.60	45.69	40.31	J-1010
J-1505	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.56	40.14	J-1010
J-1510	true	true	1,000.00	3,000.00	1,008.80	3,008.80	42.99	40.05	J-1010
J-1515	true	true	1,000.00	2,821.44	1,000.00	2,821.44	20.00	34.42	J-1520
J-1520	true	true	1,000.00	2,823.80	1,000.00	2,823.80	20.00	34.37	J-1515
J-1525	true	true	1,000.00	3,000.00	1,008.80	3,008.80	43.39	39.79	J-1010
J-1530	true	true	1,000.00	3,000.00	1,009.60	3,009.60	45.12	40.80	J-1010
J-1535	true	true	1,000.00	1,911.61	1,000.00	1,911.61	20.00	42.58	J-1010
J-2000	true	true	1,000.00	3,000.00	1,000.00	3,000.00	39.68	38.39	J-2470
J-2005	true	true	1,000.00	3,000.00	1,029.80	3,029.80	43.13	40.77	J-2060
J-2010	true	true	1,000.00	2,778.33	1,039.20	2,817.53	20.00	20.69	J-2090
J-2020	true	true	1,000.00	2,694.79	1,016.00	2,710.79	20.00	20.25	J-2100
J-2030	true	true	1,000.00	2,668.56	1,010.40	2,678.96	20.00	22.28	J-2100
J-2040	true	true	1,000.00	2,729.28	1,008.80	2,738.08	20.00	20.39	J-2050
J-2050	true	true	1,000.00	1,789.46	1,000.00	1,789.46	20.01	35.46	J-2040
J-2060	true	true	1,000.00	3,000.00	1,007.20	3,007.20	22.24	27.00	J-2040
J-2070	true	true	1,000.00	2,394.74	1,000.00	2,394.74	20.58	20.00	J-2100
J-2080	true	true	1,000.00	2,139.70	1,000.00	2,139.70	20.78	20.00	J-2100
J-2090	true	true	1,000.00	1,877.42	1,000.00	1,877.42	20.00	32.07	J-2100
J-2100	true	true	1,000.00	1,778.36	1,009.60	1,787.96	20.01	28.88	J-2080

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-2110	true	true	1,000.00	3,000.00	1,016.00	3,016.00	26.16	26.78	J-2130
J-2120	true	true	1,000.00	1,520.91	1,014.40	1,535.31	20.77	20.00	J-2130
J-2130	true	true	1,000.00	1,041.92	1,006.40	1,048.32	20.00	34.35	J-2120
J-2140	true	true	1,000.00	1,513.85	1,008.80	1,522.65	20.74	20.00	J-2150
J-2150	true	true	1,000.00	1,107.91	1,000.00	1,107.91	20.00	32.61	J-2140
J-2160	true	true	1,000.00	1,580.08	1,014.40	1,594.48	20.77	20.00	J-2170
J-2170	true	true	1,000.00	1,131.46	1,000.00	1,131.46	20.00	33.24	J-2160
J-2180	true	true	1,000.00	2,391.58	1,022.32	2,413.90	28.49	20.00	J-2470
J-2190	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.69	39.43	J-2470
J-2200	true	true	1,000.00	3,000.00	1,000.00	3,000.00	29.10	23.40	J-2470
J-2210	true	true	1,000.00	2,081.66	1,000.00	2,081.66	24.78	20.00	J-2470
J-2220	true	true	1,000.00	1,870.03	1,000.00	1,870.03	24.11	20.00	J-2470
J-2230	true	true	1,000.00	1,679.41	1,000.00	1,679.41	23.03	20.00	J-2470
J-2240	true	true	1,000.00	1,556.65	1,000.00	1,556.65	20.14	20.00	J-2500
J-2250	true	true	1,000.00	1,489.34	1,015.20	1,504.54	20.00	20.40	J-2500
J-2260	true	true	1,000.00	2,223.48	1,014.40	2,237.88	22.19	20.00	J-2470
J-2270	true	true	1,000.00	1,553.69	1,000.00	1,553.69	20.00	30.90	J-2470
J-2280	true	true	1,000.00	2,154.97	1,000.00	2,154.97	22.12	20.00	J-2470
J-2290	true	true	1,000.00	2,082.00	1,000.00	2,082.00	20.00	20.68	J-2470
J-2300	true	true	1,000.00	2,067.57	1,000.00	2,067.57	20.00	20.59	J-2470
J-2310	true	true	1,000.00	2,013.72	1,014.40	2,028.12	20.00	20.32	J-2320
J-2320	true	true	1,000.00	1,575.48	1,000.00	1,575.48	20.00	28.64	J-2470
J-2330	true	true	1,000.00	2,010.50	1,000.00	2,010.50	20.00	20.31	J-2470
J-2340	true	true	1,000.00	1,718.84	1,025.60	1,744.44	20.00	26.60	J-2470
J-2350	true	true	1,000.00	1,933.79	1,018.40	1,952.19	20.01	20.00	J-2470
J-2360	true	true	1,000.00	1,858.65	1,000.00	1,858.65	23.19	20.00	J-2470
J-2370	true	true	1,000.00	1,773.21	1,029.60	1,802.81	20.30	20.00	J-2470
J-2380	true	true	1,000.00	1,675.92	1,020.00	1,695.92	22.36	20.00	J-2470
J-2400	true	true	1,000.00	1,536.55	1,015.20	1,551.75	20.00	22.99	J-2470
J-2410	true	true	1,000.00	1,628.31	1,019.20	1,647.51	20.00	20.39	J-2470
J-2420	true	true	1,000.00	1,664.42	1,000.00	1,664.42	22.02	20.00	J-2470
J-2430	true	true	1,000.00	1,575.64	1,020.00	1,595.64	20.18	20.00	J-2440
J-2440	true	true	1,000.00	1,354.84	1,000.00	1,354.84	20.00	26.04	J-2430
J-2450	true	true	1,000.00	1,572.25	1,020.00	1,592.25	21.07	20.00	J-2470
J-2460	true	true	1,000.00	1,507.36	1,021.60	1,528.96	20.26	20.00	J-2470
J-2470	true	true	1,000.00	1,183.70	1,017.60	1,201.30	20.01	28.19	J-2480
J-2480	true	true	1,000.00	1,468.37	1,000.00	1,468.37	20.00	20.22	J-2470
J-2490	true	true	1,000.00	1,458.84	1,020.00	1,478.84	20.00	20.47	J-2500
J-2500	true	true	1,000.00	1,208.17	1,020.00	1,228.17	20.01	27.29	J-2490
J-2510	true	true	1,000.00	1,468.96	1,000.00	1,468.96	20.00	20.08	J-2500
J-2520	true	true	1,000.00	1,478.95	1,000.00	1,478.95	20.00	20.18	J-2500
J-2530	true	true	1,000.00	1,363.01	1,012.00	1,375.01	20.00	20.11	J-2540
J-2540	true	true	1,000.00	1,098.57	1,000.00	1,098.57	20.00	27.95	J-2530
J-2560	true	true	1,000.00	1,530.33	1,000.00	1,530.33	20.87	20.00	J-2500
J-3000	true	true	1,000.00	3,000.00	1,000.00	3,000.00	61.91	44.64	J-1010
J-3010	true	true	1,000.00	3,000.00	1,000.00	3,000.00	56.65	42.61	J-1010
J-3030	true	true	1,000.00	3,000.00	1,000.00	3,000.00	58.40	43.01	J-1010
J-3040	true	true	1,000.00	3,000.00	1,000.00	3,000.00	30.19	42.13	J-1010
J-3050	true	true	1,000.00	3,000.00	1,034.40	3,034.40	53.39	42.02	J-1010
J-3060	true	true	1,000.00	3,000.00	1,000.00	3,000.00	27.29	41.99	J-1010

Scenario: Maximum Day, 60 psig in Hydro Tank, P-484 Closed
Fire Flow Analysis
Fire Flow Report

Label	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Needed (gpm)	Total Flow Available (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Junction
J-3080	true	true	1,000.00	3,000.00	1,000.00	3,000.00	43.82	41.99	J-1010
J-3090	true	true	1,000.00	3,000.00	1,024.80	3,024.80	43.73	42.00	J-1010
J-3095	true	true	1,000.00	3,000.00	1,000.00	3,000.00	39.93	42.02	J-1010
J-3100	true	true	1,000.00	3,000.00	1,000.00	3,000.00	45.93	42.04	J-1010
J-3110	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.29	42.13	J-1010
J-3120	true	true	1,000.00	3,000.00	1,000.00	3,000.00	54.55	42.16	J-1010
J-3130	true	true	1,000.00	3,000.00	1,020.00	3,020.00	27.16	32.87	J-3290
J-3140	true	true	1,000.00	3,000.00	1,000.00	3,000.00	37.39	37.81	J-3320
J-3150	true	true	1,000.00	2,349.73	1,000.00	2,349.73	20.00	20.57	J-3170
J-3160	true	true	1,000.00	3,000.00	1,000.00	3,000.00	37.80	38.46	J-3150
J-3170	true	true	1,000.00	2,116.78	1,000.00	2,116.78	20.00	25.88	J-3190
J-3180	true	true	1,000.00	2,062.83	1,000.00	2,062.83	20.00	25.25	J-3190
J-3190	true	true	1,000.00	2,215.42	1,032.00	2,247.42	20.00	20.43	J-3180
J-3200	true	true	1,000.00	3,000.00	1,000.00	3,000.00	49.87	43.11	J-1010
J-3210	true	true	1,000.00	3,000.00	1,000.00	3,000.00	46.31	43.19	J-1010
J-3220	true	true	1,000.00	3,000.00	1,032.00	3,032.00	37.11	41.25	J-3225
J-3225	true	true	1,000.00	3,000.00	1,031.20	3,031.20	34.63	41.66	J-3220
J-3230	true	true	1,000.00	3,000.00	1,000.00	3,000.00	44.71	43.29	J-1010
J-3240	true	true	1,000.00	3,000.00	1,000.00	3,000.00	34.45	40.29	J-3245
J-3245	true	true	1,000.00	3,000.00	1,037.60	3,037.60	30.40	40.81	J-3240
J-3250	true	true	1,000.00	3,000.00	1,000.00	3,000.00	42.67	43.22	J-1010
J-3260	true	true	1,000.00	3,000.00	1,000.00	3,000.00	41.12	41.71	J-3240
J-3265	true	true	1,000.00	2,485.97	1,035.20	2,521.17	20.00	43.50	J-1010
J-3270	true	true	1,000.00	3,000.00	1,000.00	3,000.00	48.62	43.42	J-1010
J-3275	true	true	1,000.00	3,000.00	1,000.00	3,000.00	38.15	39.38	J-351
J-3280	true	true	1,000.00	3,000.00	1,000.00	3,000.00	36.40	37.36	J-3285
J-3285	true	true	1,000.00	3,000.00	1,024.80	3,024.80	27.72	37.99	J-3280
J-3290	true	true	1,000.00	3,000.00	1,000.00	3,000.00	30.47	32.90	J-3130
J-3300	true	true	1,000.00	3,000.00	1,000.00	3,000.00	33.61	35.14	J-3400
J-3310	true	true	1,000.00	3,000.00	1,027.12	3,027.12	32.84	35.39	J-3410
J-3320	true	true	1,000.00	3,000.00	1,000.00	3,000.00	33.93	36.73	J-3410
J-3330	true	true	1,000.00	3,000.00	1,000.00	3,000.00	35.33	41.99	J-1010
J-3340	true	true	1,000.00	3,000.00	1,000.00	3,000.00	46.55	41.99	J-1010
J-3350	true	true	1,000.00	3,000.00	1,039.20	3,039.20	39.52	38.91	J-3360
J-3360	true	true	1,000.00	3,000.00	1,000.00	3,000.00	22.04	39.52	J-3350
J-3370	true	true	1,000.00	3,000.00	1,045.76	3,045.76	54.63	42.66	J-1010
J-3380	true	true	1,000.00	3,000.00	1,027.00	3,027.00	41.70	42.66	J-1010
J-3390	true	true	1,000.00	3,000.00	1,018.00	3,018.00	37.42	42.66	J-1010
J-3400	true	true	1,000.00	2,779.70	1,012.80	2,792.50	20.00	37.99	J-3290
J-3410	true	true	1,000.00	2,617.64	1,017.60	2,635.24	20.00	42.33	J-3310
J-3420	true	true	1,000.00	3,000.00	1,000.00	3,000.00	60.45	44.20	J-1010
J-5000	true	true	1,500.00	2,000.00	1,500.00	2,000.00	47.87	42.58	J-2470
J-5001	true	true	1,500.00	2,000.00	1,504.80	2,004.80	47.14	43.77	J-1010

EXHIBIT 7

ARIZONA CORPORATION COMMISSION
UTILITIES DIVISION

Final
Mailed 3-30-04

ANNUAL REPORT MAILING LABEL – MAKE CHANGES AS NECESSARY

W-01[illegible]7A
New River Utilities Company
7839 West Deer Valley Road
Peoria, AZ 85382

ANNUAL REPORT

FOR YEAR ENDING

12	31	2003

FOR COMMISSION USE

Ann04	03

COMPANY INFORMATION

Company Name (Business Name) New River Utility Company

Mailing Address 7839 W. Deer Valley (Street)

Peoria (City) Az. (State) 85382 (Zip)

623-561-1848 Telephone No. (Include Area Code) 623-561-5831 Fax No. (Include Area Code) Pager/Cell No. (Include Area Code)

Email Address

Local Office Mailing Address 7839 W. Deer Valley (Street)

Peoria (City) Az (State) 85382 (Zip)

623-561-1848 Local Office Telephone No. (Include Area Code) 623-561-5831 Fax No. (Include Area Code) Pager/Cell No. (Include Area Code)

Email Address

MANAGEMENT INFORMATION

Management Contact: Bob Fletcher (Name) (Title)

7839 W. Deer Valley (Street) Peoria (City) Ariz (State) 85382 (Zip)

623-561-1848 Telephone No (Include Area Code) 623- Fax No. (Include Area Code) Pager/Cell No. (Include Area Code)

Email Address

On Site Manager: Bob Fletcher (Name)

7839 W. Deer Valley (Street) Peoria (City) Az (State) 85382 (Zip)

623-561-1848 Telephone No. (Include Area Code) 623-561-5831 Fax No. (Include Area Code) Pager/Cell No. (Include Area Code)

Email Address

☐ **Please mark this box if the above address(es) have changed or are updated since the last filing.**

Statutory Agent: R.L. Fletcher (Name)

7839 W. Deer Valley (Street) Peoria (City) AZ (State) 85382 (Zip)

623-561-1848 Telephone No. (Include Area Code) 623-561-5831 Fax No. (Include Area Code) Pager/Cell No. (Include Area Code)

Attorney: Norm James (Name)

3003 N. Central Ave (Street) Phoenix (City) AZ (State) 85012 (Zip)

602-916-5346 Telephone No. (Include Area Code) 602-916-5546 Fax No. (Include Area Code) Pager/Cell No. (Include Area Code)

☐ Please mark this box if the above address(es) have changed or are updated since the last filing.

OWNERSHIP INFORMATION

Check the following box that applies to your company:

- ☐ Sole Proprietor (S)
- ☐ Partnership (P)
- ☐ Bankruptcy (B)
- ☐ Receivership (R)
- ☐ Other (Describe)
- ☐ C Corporation (C) (Other than Association/Co-op)
- ☒ Subchapter S Corporation (Z)
- ☐ Association/Co op (A)
- ☐ Limited Liability Company

COUNTIES SERVED

Check the box below for the counties in which you are certificated to provide service:

- ☐ APACHE
- ☐ GILA
- ☐ LA PAZ
- ☐ NAVAJO
- ☐ SANTA CRUZ
- ☐ STATEWIDE
- ☐ COCHISE
- ☐ GRAHAM
- ☒ MARICOPA
- ☐ PIMA
- ☐ YAVAPAI
- ☐ COCONINO
- ☐ GREENLEE
- ☐ MOHAVE
- ☐ PINAL
- ☐ YUMA

COMPANY NAME New River Utility Company

UTILITY PLANT IN SERVICE

Acct. No.	DESCRIPTION	Original Cost (OC)	Accumulated Depreciation (AD)	O.C.L.D. (OC less AD)
301	Organization			
302	Franchises			
303	Land and Land Rights	75,181	–	75,181
304	Structures and Improvements	84,633	9,144	75,489
307	Wells and Springs	795,021	202,119	592,902
311	Pumping Equipment	858,332	279,926	578,406
320	Water Treatment Equipment			
330	Distribution Reservoirs and Standpipes	1,046,963	129,190	917,773
331	Transmission and Distribution Mains	1,262,293	115,596	1,146,697
333	Services	236,325	44,055	192,270
334	Meters and Meter Installations	110,130	30,614	79,516
335	Hydrants	193,193	16,113	177,080
336	Backflow Prevention Devices			
339	Other Plant and Misc. Equipment			
340	Office Furniture and Equipment	21,198	7,646	13,552
341	Transportation Equipment			
343	Tools, Shop and Garage Equipment			
344	Laboratory Equipment			
345	Power Operated Equipment	27,025	4,540	22,485
346	Communication Equipment			
347	Miscellaneous Equipment			
348	Other Tangible Plant	88,755	25,252	63,503
	TOTALS	4,798,799	864,994	3,934,805

This amount goes on the Balance Sheet Acct. No. 108

CJ.

COMPANY NAME: New River Utility Company

CALCULATION OF DEPRECIATION EXPENSE FOR CURRENT YEAR

Acct. No.	DESCRIPTION	Original Cost (1)	Depreciation Percentage (2)	Depreciation Expense (1x2)
301	Organization			
302	Franchises			
303	Land and Land Rights	75,181	—	
304	Structures and Improvements	84,633	3.33	2,818
307	Wells and Springs	795,021	3.33	26,474
311	Pumping Equipment	858,332	12.5	106,536
320	Water Treatment Equipment			
330	Distribution Reservoirs and Standpipes	1,046,763	2.22	23,243
331	Transmission and Distribution Mains	1,262,743	2.00	25,245
333	Services	236,325	3.33	7,870
334	Meters and Meter Installations	110,130	8.33	9,123
335	Hydrants	193,193	2.00	3,864
336	Backflow Prevention Devices			
339	Other Plant and Misc. Equipment			
340	Office Furniture and Equipment	21,198	6.67	1,414
341	Transportation Equipment			
343	Tools, Shop and Garage Equipment			
344	Laboratory Equipment			
345	Power Operated Equipment	27,025	5.00	1,351
346	Communication Equipment			
347	Miscellaneous Equipment			
348	Other Tangible Plant	88,755	20.00	14,604
	TOTALS	4,798,999		222,541

This amount goes to Comparative Statement of Income and Expense Acct. No. 403.

CJ

COMPANY NAME New River Utility Company

BALANCE SHEET

Acct. No.	ASSETS	BALANCE AT BEGINNING OF YEAR	BALANCE AT END OF YEAR
	CURRENT AND ACCRUED ASSETS		
131	Cash	$ 3,891	$ 156,720
134	Working Funds		
135	Temporary Cash Investments		
141	Customer Accounts Receivable	31,760	33,821
146	Notes/Receivables from Associated Companies		104,000
151	Plant Material and Supplies		
162	Prepayments		
174	Miscellaneous Current and Accrued Assets		
	TOTAL CURRENT AND ACCRUED ASSETS	$ 35,651	$ 294,541
	FIXED ASSETS		
101	Utility Plant in Service	$ 4,754,796	$ 4,798,999
103	Property Held for Future Use		
105	Construction Work in Progress		
108	Accumulated Depreciation – Utility Plant	641,653	864,134
121	Non-Utility Property		
122	Accumulated Depreciation – Non Utility		
	TOTAL FIXED ASSETS	$ 4,113,143	$ 3,934,865
	TOTAL ASSETS	$ 4,148,793	$ 4,229,346

NOTE: The Assets on this page should be equal to Total Liabilities and Capital on the following page.

COMPANY NAME Red River Utility Company

BALANCE SHEET (CONTINUED)

Acct. No.	LIABILITIES	BALANCE AT BEGINNING OF YEAR	BALANCE AT END OF YEAR
	CURRENT LIABILITIES		
231	Accounts Payable	$ 239,933	$ 301,923
232	Notes Payable (Current Portion)		
234	Notes/Accounts Payable to Associated Companies		
235	Customer Deposits	6,938	4,830
236	Accrued Taxes		
237	Accrued Interest		
241	Miscellaneous Current and Accrued Liabilities		
	TOTAL CURRENT LIABILITIES	$ 246,771	$ 306,753
	LONG-TERM DEBT (over 12 Months)		
224	Long-Term Notes and Bonds	$	$
	DEFERRED CREDITS		
251	Unamortized Premium on Debt	$	$
252	Advances in Aid of Construction	3,320,377	3,202,308
255	Accumulated Deferred Investment Tax Credits		
271	Contributions in Aid of Construction		
272	Less: Amortization of Contributions		
281	Accumulated Deferred Income Tax	6,722	6,722
	TOTAL DEFERRED CREDITS	$ 3,327,119	$ 3,209,030
	TOTAL LIABILITIES	$ 3,573,890	$ 3,515,783
	CAPITAL ACCOUNTS		
201	Common Stock Issued	$ 100	$ 100
211	Paid in Capital in Excess of Par Value	978,819	978,819
215	Retained Earnings	(404,016)	(265,356)
218	Proprietary Capital (Sole Proprs and Partnerships)		
	TOTAL CAPITAL	$ 574,903	$ 713,563
	TOTAL LIABILITIES AND CAPITAL	$ 4,148,793	$ 4,229,346

COMPANY NAME New River Utility Company

COMPARATIVE STATEMENT OF INCOME AND EXPENSE

Acct. No.	OPERATING REVENUES	PRIOR YEAR	CURRENT YEAR
461	Metered Water Revenue	$ 950,575	$ 1,220,733
460	Unmetered Water Revenue		3,060
474	Other Water Revenues	1,898	2,543
	TOTAL REVENUES	$ 952,473	$ 1,226,336
	OPERATING EXPENSES		
601	Salaries and Wages	$ 131,924	$ 517,750
610	Purchased Water		
615	Purchased Power	156,516	122,204
618	Chemicals	4,589	2,809
620	Repairs and Maintenance	19,772	24,310
621	Office Supplies and Expense	26,653	29,464
630	Outside Services	65,988	47,840
635	Water Testing	45,146	22,579
641	Rents	39,700	30,000
650	Transportation Expense		
657	Insurance – General Liability	12,330	17,761
659	Insurance - Health and Life		
666	Regulatory Commission Expense – Rate Case	12,201	12,145
675	Miscellaneous Expense	3,080	5,074
403	Depreciation Expense	213,771	222,541
408	Taxes Other Than Income	6,506	10,482
408.11	Property Taxes	17,327	28,017
409	Income Tax		
	TOTAL OPERATING EXPENSES	$ 741,918	$ 1,087,676
	OPERATING INCOME/(LOSS)	$ 210,555	$ 138,660
	OTHER INCOME (EXPENSE)		
419	Interest and Dividend Income	$	$
421	Non-Utility Income		
426	Miscellaneous Non-Utility Expenses		
427	Interest Expense		
	TOTAL OTHER INCOME/(EXPENSE)	$	$
	NET INCOME (LOSS)	$ 210,555	$ 138,660

COMPANY NAME New River Utility Company

SUPPLEMENTAL FINANCIAL DATA
Long-Term Debt

	LOAN #1	LOAN #2	LOAN #3	LOAN #4
Date Issued				
Source of Loan				
ACC Decision No.				
Reason for Loan				
Dollar Amount Issued	$	$	$	$
Amount Outstanding	$	$	$	$
Date of Maturity				
Interest Rate				
Current Year Interest	$	$	$	$
Current Year Principle	$	$	$	$

None

Meter Deposit Balance at Test Year End $ None

Meter Deposits Refunded During the Test Year $ None

COMPANY NAME New River Utility Company

WATER COMPANY PLANT DESCRIPTION

WELLS

	ADWR ID Number*	Pump Horsepower	Pump Yield (Gpm)	Casing Depth (Feet)	Casing Diameter (Inches)	Meter Size (inches)	Year Drilled
#1	55-805437 L	200	900	1200	20	8"	1947
#2	55-616944	150	375	1262	20"-16"	6"	1952
#3	55-616945	300	800	1590	16"	8"	1958
#4	55-616946	75	300	1300	16"	6"	1969
#5	55-616947	125	847	1515	16"	8"	1969
#6	55-616948	300	1275	1977 [illegible]	16" TO 1600 @ 12" TO 1977	8"	1982

* Arizona Department of Water Resources Identification Number

OTHER WATER SOURCES

Name or Description	Capacity (gpm)	Gallons Purchased or Obtained (in thousands)
CAP		None.

BOOSTER PUMPS		FIRE HYDRANTS	
Horsepower	Quantity	Quantity Standard	Quantity Other
100 HP	2	201	
25 HP	6		

STORAGE TANKS		PRESSURE TANKS	
Capacity	Quantity	Capacity	Quantity
1,000,000 Gal	3	5000 Gal	2

COMPANY NAME New River Utility Company

WATER COMPANY PLANT DESCRIPTION (CONTINUED)

MAINS

Size (in inches)	Material	Length (in feet)
2	PVC-40	300
3		
4		
5		
6	C900	18,818
8	C900	40,587
10	C900	3,578
12	C900	2,579
8"	DIP	1,509
12"	DIP	19,929
16"	DIP	62

CUSTOMER METERS

Size (in inches)	Quantity
5/8 X ¾	
3/4	1784
1	720
1 1/2	10
2	30
Comp. 3	
Turbo 3	
Comp. 4	2
Turbo 4	
Comp. 6	
Turbo 6	2
12-31-03	2548

For the following three items, list the utility owned assets in each category.

TREATMENT EQUIPMENT:
3-Chlorine Stations

STRUCTURES:
800 FT Redwood Fence
600 FT Chain Link

OTHER:

COMPANY NAME: New River Utility Company

WATER USE DATA SHEET BY MONTH FOR CALENDAR YEAR 2003

MONTH	NUMBER OF CUSTOMERS	GALLONS SOLD	GALLON PUMPED (Thousands)
JANUARY	2304	31,048,100	34,375,000
FEBRUARY	2317	[illegible]	29,418,000
MARCH	2336	26,434,200 [illegible]	25,011,000
APRIL	2372	36,708,000	49,858,000
MAY	2403	46,924,900	52,124,000
JUNE	2410	61,951,900	70,317,000
JULY	2450	73,331,400	73,144,000
AUGUST	2475	78,565,900	73,183,000
SEPTEMBER	2491	60,264,200	66,566,000
OCTOBER	2521	47,617,600	55,474,000
NOVEMBER	2528	60,426,600	52,561,000
DECEMBER	2548	37,641,300	32,026,000
	TOTAL	N/A	[illegible]
		580,499,000	604,054,000

Is the Water Utility located in an ADWR Active Management Area (AMA)?

(X) Yes ( ) No

Does the Company have An ADWR Gallons Per Capita Per Day (GPCPD) requirement?

( ) Yes (X) No

If yes, provide the GPCPD amount: _____

What is the level of arsenic for each well on your system. _____ mg/l
(If more than one well, please list each separately)

Note: If you are filing for more than one system, please provide separate data sheets for each system.

Well #1 - Arsenic Level .005
" #2 " " .004
" #4 " " .014
" #6 " " .016

MCL Value 0.05

COMPANY NAME _____ YEAR ENDING 12/31/2003

PROPERTY TAXES

Amount of actual property taxes paid during Calendar Year 2003 was: $ 27,830.22

Attach to this annual report proof (e.g. property tax bills stamped "paid in full" or copies of cancelled checks for property tax payments) of any and all property taxes paid during the calendar year.

If no property taxes paid, explain why. _____

2893

NEW RIVER UTILITY CO. INC.

[illegible]

[illegible] $27,830.22

[illegible]

R005340370979 OCT 2 #2893 $27830.22

COMPANY NAME_____ YEAR ENDING 12/31/2003

INCOME TAXES

For this reporting period, provide the following:

Federal Taxable Income Reported	None
Estimated or Actual Federal Tax Liability	None
State Taxable Income Reported	None
Estimated or Actual State Tax Liability	None

Amount of Grossed-Up Contributions/Advances:

Amount of Contributions/Advances	0
Amount of Gross-Up Tax Collected	0
Total Grossed-Up Contributions/Advances	0

Decision No. 55774 states, in part, that the utility will refund any excess gross-up funds collected at the close of the tax year when tax returns are completed. Pursuant to this Decision, if gross-up tax refunds are due to any Payer or if any gross-up tax refunds have already been made, attach the following information by Payer: name and amount of contribution/advance, the amount of gross-up tax collected, the amount of refund due to each Payer, and the date the Utility expects to make or has made the refund to the Payer.

CERTIFICATION

The undersigned hereby certifies that the Utility has refunded to Payers all gross-up tax refunds reported in the prior year's annual report. This certification is to be signed by the President or Chief Executive Officer, if a corporation; the managing general partner, if a partnership; the managing member, if a limited liability company or the sole proprietor, if a sole proprietorship.

SIGNATURE	Feb 15, 2004 DATE
R L Fletcher PRINTED NAME	Pres TITLE

VERIFICATION
AND
SWORN STATEMENT
Intrastate Revenues Only

VERIFICATION

STATE OF — COUNTY OF (COUNTY NAME): Maricopa

I, THE UNDERSIGNED — NAME (OWNER OR OFFICIAL) TITLE: R L Fiedler

OF THE — COMPANY NAME: New River Utility Company

DO SAY THAT THIS ANNUAL UTILITY REPORT TO THE ARIZONA COPRORATION COMMISSION

FOR THE YEAR ENDING — MONTH: 12 DAY: 31 YEAR: 2003

HAS BEEN PREPARED UNDER MY DIRECTION, FROM THE ORIGINAL BOOKS, PAPERS AND RECORDS OF SAID UTILITY; THAT I HAVE CAREFULLY EXAMINED THE SAME, AND DECLARE THE SAME TO BE A COMPLETE AND CORRECT STATEMENT OF BUSINESS AND AFFAIRS OF SAID UTILITY FOR THE PERIOD COVERED BY THIS REPORT IN RESPECT TO EACH AND EVERY MATTER AND THING SET FORTH, TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

SWORN STATEMENT

IN ACCORDANCE WITH THE REQUIREMENT OF TITLE 40, ARTICLE 8, SECTION 40-401, ARIZONA REVISED STATUTES, IT IS HEREIN REPORTED THAT THE GROSS OPERATING REVENUE OF SAID UTILITY DERIVED FROM ARIZONA INTRASTATE UTILITY OPERATIONS DURING CALENDAR YEAR 2003 WAS:

TRACY ANN DALGUISH
Notary Public - Arizona
Maricopa County
My Commission Expires
August 20, 2005

Arizona IntraState Gross Operating Revenue Only ($)

$ [redacted] 1,220,733 —

(THE AMOUNT IN BOX ABOVE INCLUDES $ 89,771.40 IN SALES TAXES BILLED, OR COLLECTED

**REVENUE REPORTED ON THIS PAGE MUST INCLUDE SALES TAXES BILLED OR COLLECTED. IF FOR ANY OTHER REASON, THE REVENUE REPORTED ABOVE DOES NOT AGREE WITH TOTAL OPERATING REVENUES ELSEWHERE REPORTED, ATTACH THOSE STATEMENTS THAT RECONCILE THE DIFFERENCE. (EXPLAIN IN DETAIL)

SIGNATURE OF OWNER OR OFFICIAL

623-561-1648
TELEPHONE NUMBER

SUBSCRIBED AND SWORN TO BEFORE ME

A NOTARY PUBLIC IN AND FOR THE COUNTY OF Maricopa

THIS 10th DAY OF February 2004

(SEAL)

MY COMMISSION EXPIRES August 28, 2005

SIGNATURE OF NOTARY PUBLIC

VERIFICATION
AND
SWORN STATEMENT
RESIDENTIAL REVENUE

VERIFICATION — INTRASTATE REVENUES ONLY

STATE OF ARIZONA — (COUNTY NAME) Maricopa

I, THE UNDERSIGNED — NAME (OWNER OR OFFICIAL) R L Fletcher — TITLE Pres

OF THE — COMPANY NAME New River Utility Company

DO SAY THAT THIS ANNUAL UTILITY REPORT TO THE ARIZONA CORPORATION COMMISSION

	MONTH	DAY	YEAR
FOR THE YEAR ENDING	12	31	2003

HAS BEEN PREPARED UNDER MY DIRECTION, FROM THE ORIGINAL BOOKS, PAPERS AND RECORDS OF SAID UTILITY; THAT I HAVE CAREFULLY EXAMINED THE SAME, AND DECLARE THE SAME TO BE A COMPLETE AND CORRECT STATEMENT OF BUSINESS AND AFFAIRS OF SAID UTILITY FOR THE PERIOD COVERED BY THIS REPORT IN RESPECT TO EACH AND EVERY MATTER AND THING SET FORTH, TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

SWORN STATEMENT

IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 40, ARTICLE 8, SECTION 40-401.01, ARIZONA REVISED STATUTES, IT IS HEREIN REPORTED THAT THE GROSS OPERATING REVENUE OF SAID UTILITY DERIVED FROM ARIZONA INTRASTATE UTILITY OPERATIONS RECEIVED FROM RESIDENTIAL CUSTOMERS DURING CALENDAR YEAR 2003 WAS:

ARIZONA INTRASTATE GROSS OPERATING REVENUES

$ 1,220,713 —

(THE AMOUNT IN BOX AT LEFT INCLUDES $ 89,771.40 IN SALES TAXES BILLED, OR COLLECTED

*RESIDENTIAL REVENUE REPORTED ON THIS PAGE MUST INCLUDE SALES TAXES BILLED,

SIGNATURE OF OWNER OR OFFICIAL

TRACY ANN DALGLEISH
Notary Public - Arizona
Maricopa County
My Commission Expires

SUBSCRIBED AND SWORN TO BEFORE ME

A NOTARY PUBLIC IN AND FOR THE COUNTY OF

THIS 30th DAY OF

NOTARY PUBLIC NAME Tracy Ann Dalgleish
COUNTY NAME Maricopa
MONTH March , 2004

(SEAL)

MY COMMISSION EXPIRES August 28, 2005

SIGNATURE OF NOTARY PUBLIC

EXHIBIT 8

UTILITY SERVICES OPERATING AGREEMENT

THIS OPERATING AGREEMENT ("Agreement") dated as of 4 6, 04, by and between the CITY OF PEORIA, an Arizona municipal corporation ("City"), and NEW RIVER UTILITY COMPANY, an Arizona corporation ("Utility").

RECITALS:

1. Utility, with the consent and approval of City, has provided domestic water utility services to the areas set forth in the map attached as **Appendix A** hereto.

2. City and Utility acknowledge that pursuant to the provisions of Article 12, Peoria City Charter, a franchise may not be presently issued to Utility for the area set forth in **Appendix A** without the approval of the qualified electors of City.

3. In order to minimize duplication and conflict arising out of the issuance of individual permits to Utility for use of the public right of ways and to establish standard guidelines, City and Utility agree to enter into this Agreement and to permit Utility to use public streets, ways and public utility easements for utility service, as set forth in this Agreement.

AGREEMENT:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto hereby agree as follows:

Section 1. Operating Grant.

That in consideration of the payments hereinafter provided to be paid and the benefits to City to be derived from the installation, operation and maintenance of water treatment, transmission and disbritubion facilities in certain portions of City, Utility, its successors and assigns, shall have the right and privilege to construct, maintain, and operate upon, over, along, across, and under the present and future public rights-of-way (including but not limited to streets, alleys, ways, highways, public utility easements and bridges) within the present and any future corporate limits of City for the areas described in Appendix A, a water treatment, transmission and disbritubion system, together with all necessary or desirable appurtenances (including but not limited to treatment facilities, service lines, pipes, boosters, mains and/or equipment for its own use), for the purpose of supplying water utility services to a portion of City, its successors, the inhabitants thereof, and all individuals and entities thereof, for all purposes.

Section 2. Compliance with laws; generally.

Utility shall promptly and fully comply with all applicable statutes, ordinances, judgments, decrees, orders, rules and regulations of any Competent Authority having jurisdiction over Utility's activities.

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The City expressly reserves the right to adopt, from time to time in addition to these provisions, ordinances, rules, permit requirements and regulations it may deem necessary in the exercise of City's governmental powers.

Section 3. Compliance with City Requirements; Plans Submitted for Approval; City Construction near Utility's Facilities.

All new construction under this Agreement shall be performed in accordance with the adopted specifications (including but not limited to, infrastructure guidelines and city code requirements) of City for public works projects with respect to such public rights-of-way. Prior to Utility making any new installations in the public rights-of-way, Utility or Utility's agent shall pay applicable fees and shall submit for approval plans prepared by a registered professional engineer showing the location of such proposed new installations to City's Engineering Department. If City undertakes either directly or through a contractor any construction project adjacent to or near Utility's facilities operated pursuant to this Agreement, City shall include in all such construction specifications, bids, and contracts a requirement that, as part of the cost of the project, the contractor or his designee obtain from Utility the temporary removal, relocation, barricading or depressurization of Utility's facilities or equipment, the location of which create an unsafe condition in view of the equipment to be utilized or the method of construction to be followed by the contractor. City shall indemnify and hold Utility harmless from any and all claims, costs, losses, or expenses incurred by Utility as a result of the failure of City to comply with the requirements hereof.

Section 4. Service Standard.

The quality of water treatment, transmission and distribution services provided by Utility shall comply with the requirements of the United States Environmental Protection Agency, Arizona Department of Environmental Quality, Airzona Corporation Commission, and Department of Health Services and the Maricopa County Department of Environmental Health Services.

Section 5. Utility Obligations.

In consideration of City's execution of this Agreement, Utility agrees to furnish on a monthly basis to City, certain information as determined by the city relating to customers serviced by Utility in the certifcated service area set forth on **Appendix A** to this Agreement for use by City in calculating cost of City services.

Utility shall also provide City with a map in electronic or hardcopy form identifying existing facilities located in the City's Right of way.

Section 6. Construction and Relocation of Utility Facilities: Payment.

All new facilities installed or constructed pursuant to this Agreement shall require a City Permit and shall be so located or relocated and so erected as to minimize interference with vehicular and pedestrian traffic and other authorized uses over, under or through the public rights-of-way. Those phases of construction of Utility's facilities relating to traffic control, backfilling, compaction and paving, as well as the location or relocation of facilities herein provided for shall be subject to regulation by the City. Utility shall keep accurate records of the location of all facilities in the public right-of-way and furnish them to City upon request.

Upon completion of new or relocation construction of underground facilities in the public right-of-way, Utility shall promptly furnish to the City in a format compatible with the City's computer aided drafting and geographic information system software, suitable documentation showing the actual location of the underground facilities in those cases where the actual location differs from the proposed location approved in the permit plans. In the event that Utility's electronic format is not compatible with the City's electronic system, then Utility shall provide the drawings in hard copy format satisfactory to the City or convert the information to the City's Electronic Format at Utility's expense at the elction of the City.

(a) If City requires Utility to relocate Utility's facilities from private easements or rights-of way obtained by Utility prior to City's acquisition of the public right-of-way, the entire cost of relocating Utility's facilities (including the cost of purchasing a new private easement or right-of-way, if necessary) shall be borne by City. However, utility shall initially install its facilities as part of a future development and such facilities in City streets shall not be considered prior to City's acquisition.

(b) Except as covered in Paragraph (a) above, Utility shall bear the entire cost of relocating its facilities located on public rights-of-way, the relocation of which is necessary for the City to carry out a function in the interest of the public health, safety or welfare. Utility shall pay all applicable permit costs. Utility's right to retain its facilities in their original location is subject to the paramount right of City to use its public rights-of-way for all governmental purposes.

(c) City will bear the entire cost of relocating any facilities of Utility, the relocation of which is necessitated by the construction of improvements by or on behalf of City in furtherance of a proprietary function.

(d) Where City's facilities or other facilities occupying a right-of-way under authority of a City permit or license are already located in the right-of-way and a conflict between Utility's potential facilities and the existing facilities can only be resolved expeditiously, as determined by the City's Deputy City Manager for Development Services (or designee), by relocating the existing City or permittee facilities, Utility shall bear the entire cost of relocating the existing facilities, irrespective of the function they served, together with applicable permit costs.

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(e) If City participates in the cost of relocating Utility's facilities for any reason, the cost of relocation to City shall not include any upgrade or improvement of Utility's facilities as they existed prior to relocation.

(f) City will not exercise its right to require Utility's facilities to be relocated in an unreasonable or arbitrary manner, or to avoid City's obligations under Section 2. Utility and City may agree to cooperate on the location and relocation of facilities at Utility's expense.

Section 7. Restoration of Rights-of-Wav.

Except as hereinafter provided with regard to repairs of Utility facilities, whenever Utility shall cause any opening or alteration whatever to be made for any purpose in any public right-of-way (including but not limited to easements) owned or maintained by City, Utility shall apply for and obtain a right-of-way permit from City and shall provide for inspection of the right-of-way by City. When time does not permit prior application for a permit and repairs to Utility's facilities are reasonably required, Utility may first institute and complete the repairs and then complete and file the right of way permit application. In this case, telephone notification of the repair will be given as soon as practicable to the contact person designated by the City. Utility shall complete all work with due diligence within a reasonably prompt time, and Utility shall, upon completion of such work, restore the property disturbed to as good condition as it was prior to such openings or alteration in accordance with the specifications for public works adopted by City. Utility shall comply with the Manual of Uniform Traffic Control Devices and the Phoenix Barricade Manual and shall bear the full cost of any barricades, signing, rerouting of traffic, or other action or expense that City shall consider reasonably necessary or desirable in the interest of public safety during any such opening or alteration within the public right-of-way.

In the event that Utility fails to repair the public right of way to a safe and satisfactory condition, normal wear and tear excepted and reasonably satisfactory to the City's Engineering Director, the City shall have the option upon fifteen (15) days prior written notice to Utility to perform or cause to be performed such reasonable and necessary work on behalf of Utility and to charge Utility for the proposed costs to be incurred or the actual costs incurred by the City at City's standard rates, plus and administrative fee of fifteen percent. Upon the receipt of such a demand for payment by the City, Utility shall within thirty (30) days reimburse the City for such costs. Unpaid amounts after thirty (30) days shall bear interest at the rate of 1.5% per month.

Section 8. Title to Property.

Title to all water utility facilities wherever situated on public grounds or in easements for public utility purposes and installed by Utility or its agents or contractors shall be and remain in Utility, its successors or assigns.

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Section 9. Right to Use Easements.

Nothing contained in this Agreement shall be construed as preventing, diminishing or restricting Utility from using for public utility purposes any easement shown on any plat or plats of any portion of the area described in **Appendix A** to this Agreement, before or hereafter platted or recorded that has been or may hereafter be created, granted or dedicated for public utility purposes by any person, firm or corporation. The City shall have the right to deny Utility the uses of restricted easements limited to sewer or drainage or easements not wide enought to accomodate a City and Utility Water Line.

Section 10. License Fee.

In consideration of the granting of the rights under this Agreement, Utility agrees to pay to the City, a sum equal to five percent (5%) of the gross receipts of Utility within the City, (excluding from gross receipts all sales taxes, gross revenue taxes or similar charges based upon gross receipts) from sale by it of water within the present and any future corporate limits of City, as shown by Utility's billing records (the "Fee"). This Fee shall be due and payable monthly and shall be in lieu of all fees or charges for permits or licenses issued for the construction of Utility's facilities hereunder (except for inspection fees relating to new installation of equipment in City rights of way). Notwithstanding the foregoing, fees charged by the City for pavement damage resulting from cuts into new or rehabilitated pavement in accordance with Chapter 23 of the Peoria City Code (1992) shall be permitted. For the purpose of verifying the amounts payable hereunder, the pertinent books and records of Utility shall be subject to inspection by duly authorized officers or representatives of City upon reasonable notice during regular business hours.

Transaction Privilege Taxes charged by City shall be subject to a credit against the license fee in this Agreement to the extent provided in the Peoria Sales Tax Code. (Peoria's adoption of the Model City Tax Code).

Notwithstanding any provision contained herein to the contrary, the total amount of taxes, levies, assessments and the Fee paid by Utility to City (except for inspection fees relating to new installation of new equipment in City rights of way) shall not exceed five percent (5%) of the gross receipts of Utility from sale by it of water at retail for residential and commercial purposes within the corporate limits of City. Further, if pavement cuts are made within three years of new paving, City may additionally charge to Utility any surcharges by the Public Works Department to compensate for the depreciated value of the new and rehabilitated pavement in accordance with Chapter 23 of the Peoria City Code (1992).

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Section 11. Additional Taxes.

Notwithstanding any provision contained herein to the contrary, Utility shall, in addition to the payment provided in Section 10, pay any business or occupation tax or license fee established by City and not levied by City exclusively upon utilities, provided the tax is a flat fee per year and that the annual amount of such fee does not exceed the amount of similar fees paid by the other businesses with comparable gross revenue from sales within City operated within City.

Section 12. Term.

This Agreement shall continue and exist until the earliest of the following occur:

(a) A franchise agreement between City and Utility is entered into by such parties and approved by the qualified electors of the City. Upon the canvass of an election where the voters of the City approve the issuance of a franchise for water treatment, transmission and distriubtion services to the Utility and upon the occurrence of any other acts necessary for the franchise to be granted to Utility, this Agreement shall automatically terminate.

(b) An initial period of ten (10) years from the date of this Agreement. In addition to such ten (10) year initial period, this Agreement shall be automatically renewed for an additional five (5) year period unless City or Utility gives the other written notice of termination ninety (90) days prior to the termination of the initial ten (10) year period.

Section 13. Nature of Agreement.

This Agreement is exclusive within the specific service areas of Utility set forth in **Appendix A,** and City shall not grant other like or similar grants or privileges to any other person, firm or corporation within the specific service areas. Utility may not assign this Agreement to any other person, firm or corporation without the prior written consent of City, which consent shall not be unreasonably withheld; provided, however, that Utility may assign this Agreement to a wholly-owned affiliate of Utility and Utility shall not be required to obtain City's consent in connection with such an assignment.

Section 14. Survival of Provisions.

All provisions of this Agreement which are obligatory upon or which inure to the benefit of said Utility shall be obligatory upon and shall inure to the benefit of all successors and assigns of said Utility and the word "Utility" wherever used in this Agreement shall include and be taken to mean all successors and assigns of Utility.

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Section 15. Conflicting Ordinances.

To the extent the terms of this Agreement conflict with any ordinance, or any portion of any ordinance, of City, the terms of this Agreement shall control. Notwithstanding this section, all facilities of Utility shall be required to comply with City's zoning and site plan regulations.

Section 16. Independent Provisions.

If any section, paragraph, clause, phrase or provision of this Agreement shall be adjudged invalid or unconstitutional by a court of competent jurisdiction, the same shall not affect the validity of the whole or any part of the provisions of this Agreement, other than the part so adjudged invalid or unconstitutional.

Section 17. Purchase and Eminent Domain; Right Reserved by City.

City reserves the right and authority to acquire and/or exercise its authority of eminent domain to obtain the plant property and assets of Utility within and outside the corporate limits of City or any annexations thereto, in the manner provided and to the extent authorized by law.

In the event of a purchase of Utility or under the exercises of eminent domain, this Franchise Agreement shall be construed to have no value for purposes of establishing value of Utility.

Section 18. Miscellaneous.

City and Utility hereby expressly agree that the following provision shall survive the termination or expiration of this Agreement:

> Upon the termination or expiration hereof, if Utility shall not have acquired and accepted an extension or renewal of a Utility Services Operating Agreement or entered into a franchise agreement as provided in Section 12 hereof and which has been duly approved and authorized by the qualified electors of the City, Utility may remove its facilities and system within City or at its option, may continue operating its facilities and system within City, but it shall be required to obtain proper permits and pay all required fees imposed by City, each time it makes additional extensions upon, over, along, across and under the public right-of-way within City unless or until such time as a new agreement with City is entered into or a franchise is obtained from City or the system and facilities are removed or are acquired by City through the exercise of its powers of eminent domain.

Section 19. Indemnification and Hold Harmless.

Utility shall indemnify, defend and protect the City and hold the City harmless from any loss or costs due to any claim or liability and all costs and expenses, including but not limited to actual attorneys fees resulting from the construction or maintenance or from operation of Utility's facilities. City shall indemnify Utility and hold Utility harmless from any loss or costs due to any

claim or liability and all costs and expenses, including but not limited to actual attorneys fees resulting from the construction or maintenance or from operation of City's facilities.

The City shall not be liable to any third party for damages, losses or liability arising from the issuance of approval by the City of this operating agreement.

Section 20. Insurance.

Utility shall obtain and maintain at all times during the term of this Agreement commercial general liability insurance and commercial automobile liability insurance protecting Utility in an amount not less than TWO MILLION Dollars ($2,000,000) per occurrence (combined single limit), including bodily injury and property damage, and in an amount not less than TWO MILLION Dollars ($2,000,000) annual aggregate for each personal injury liability and products-completed operations. Coverage shall be in an occurrence form and in accordance with the limits and provisions specified herein. Claims-made policies are not acceptable. When an umbrella or excess coverage is in effect, coverage shall be provided in following form. Such insurance shall not be canceled or materially altered to reduce the policy limits until the City has received at least thirty (30) days' advance written notice of such cancellation or change. Utility shall be responsible for notifying the City of such change or cancellation,

Filing of Certificates and Endorsements. Within Thirty (30) days following execution of this agreement and prior to the commencement of any work pursuant to this agreement, Utility shall file with the City the required original certificates of insurance, with endorsements, which shall clearly state all of the following:

(a) The policy number; name of insurance company; name and address of the agent or authorized representative; name, address, and telephone number of insured; project name and address; policy expiration date; and specific coverage amounts;

(b) That the City shall receive thirty (30) days' prior notice of cancellation; and

(c) That Utility's insurance is primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retention the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance.

Workers' Compensation Insurance. Utility shall obtain and maintain at all times during the term of this agreement statutory workers' compensation and employer's liability insurance in an amount not less than Two Hundred Fifty Thousand Dollars ($250,000) and shall furnish the City with a certificate showing proof of such coverage,

Insurer Criteria. Any insurance provider of Utility shall be admitted and authorized to do business in the State of Arizona and shall be rated at least A- in *A.M. Best & Company's Insurance Guide.* Insurance policies and certificates issued by non-admitted insurance companies are not acceptable.

Section 21. Termination.

To the extent applicable by provisions of law, the parties hereto acknowledge that this Agreement is subject to cancellation pursuant to Section 38-511, Arizona Revised Statutes, as amended, the provisions of which are incorporated herein.

Section 22. Governing Law.

This Agreement shall be construed in accordance with the laws of the State of Arizona.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date and year first above written.

CITY OF PEORIA, an Arizona municipal corporation

By: _____
Terrence L. Ellis, City Manager
Its: City Manager

ATTEST:

Donna R. Griffith for
Mary Jo Kief, City Clerk

APPROVED AS TO FORM

Stephen M. Kemp, City Attorney

STATE OF ARIZONA)
) ss.
County of Maricopa)

On this 24th day of March, 2004, before me, the undersigned officer, personally appeared Terrence L. Ellis who acknowledged himself to be the duly appointed and qualified City Manager of the City of Peoria, an Arizona municipal corporation, and that he in such capacity, being authorized so to do, executed the foregoing instrument for the purposes therein contained.

IN WITNESS WHEREOF I hereunto set my hand and official seal.

My Commission Expires:

OFFICIAL SEAL
BARBARA A. DERUITTER
NOTARY PUBLIC - State of Arizona
MARICOPA COUNTY
My Comm. Expires Jan. 24, 2007

Barbara A. DeRuitter
Notary Public

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NEW RIVER UTLITY COMPANY,
an Arizona corporation

By: _____
Robert L. Fletcher
Its: Pres.

STATE OF ARIZONA)
) ss:
County of Maricopa)

On this 6th day of April, 2004, before me, the undersigned officer, personally appeared Robert L. Fletcher who acknowledged himself to be the President of the NEW RIVER UTILITY COMPANY, an Arizona corporation, and that he in such capacity, being authorized so to do, executed the foregoing instrument for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires:

_____
Notary Public

OFFICIAL SEAL
CLAIRE L. VOLPE
NOTARY PUBLIC - State of Arizona
MARICOPA COUNTY
My Comm. Expires June 30, 2007

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APPENDIX A

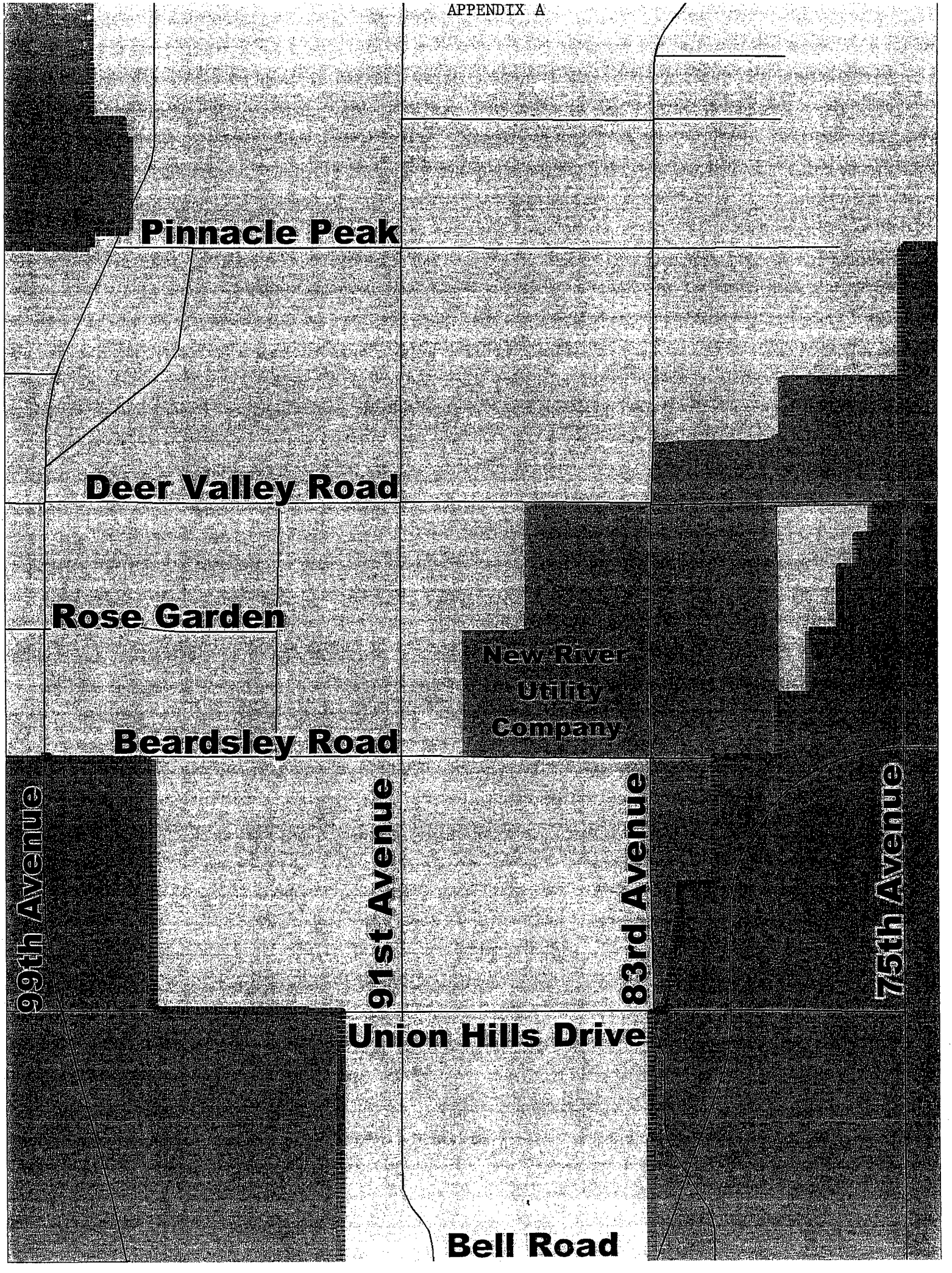
Pinnacle Peak
Deer Valley Road
Rose Garden
New River Utility Company
Beardsley Road
99th Avenue
91st Avenue
83rd Avenue
75th Avenue
Union Hills Drive
Bell Road

EXHIBIT 9

MAIN EXTENSION AGREEMENT
(WATER SERVICE)

THIS AGREEMENT is made this 7th day of July, 2004, by and between NEW RIVER UTILITY COMPANY, an Arizona public service corporation ("Utility"), and CODY FARMS, INC., a Texas corporation, ("Developer") for the purposes and consideration hereinafter set forth.

RECITALS

A. Developer is the owner of certain real property generally situated on 78th Avenue south of Deer Valley Road in Peoria, Arizona, as more particularly described in Exhibit A attached hereto and incorporated herein by this reference (the "Property"). The Property contains approximately 20 acres.

B. Developer has requested that water utility service be extended and provided to the Property by Utility in furtherance of Developer's development plans. Developer intends to develop a residential project known as CODY FARMS ("Cody Farms"), which at full build-out will contain approximately 66 residential units and related common areas. Developer is willing to construct and install transmission mains and/or other facilities, as necessary on-site for Utility to furnish service to Riverstone. Developer is willing to convey title to these facilities following completion of construction. All amounts paid by Developer for such facilities will be treated as an Advance in Aid of Construction, as defined in Section 5, according to the terms and conditions set forth hereinafter.

C. Utility is a public service corporation as defined in Article 15, Section 2, of the Arizona Constitution and, as such, is regulated by the Arizona Corporation Commission ("Commission"). Utility has been granted a Certificate of Convenience and Necessity

("CC&N") by the Commission authorizing Utility to provide water utility service within its certificated service area. Although the Property is not located within the Utility's current CC&N, Utility agrees to file an application with the Commission for an extension of its CC&N as more fully described in Section 13 of this Agreement.

NOW, THEREFORE, in consideration of the following covenants and agreements, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

AGREEMENTS

1. Facilities Construction by Developer.

a. Construction of Facilities; Right of Inspection. Subject to Sections 2 through 4 below, Developer shall construct and install, or shall cause to be constructed and installed, at its sole expense, all on-site transmission and collection mains and pipelines, fittings, service lines and/or all other related items required to extend utility service to each lot or building within the Property, as more particularly described in Exhibit B and Exhibit C attached hereto and incorporated herein by this reference (the "Facilities"). Developer agrees that the size, design, type and quality of materials used to construct the Facilities, as well as the location of the Facilities upon and under the ground, shall be approved by Utility prior to the commencement of construction and that the Facilities shall be designed and constructed in accordance with all applicable standards of Utility, the Arizona Department of Environmental Quality ("ADEQ"), the Commission and any other governmental agencies exercising jurisdiction over the design and construction of water utility systems. All plans and specifications shall be submitted to the Utility for approval prior to submission to the regulatory agencies. The Utility shall have thirty (30) business days within which to revise or approve the plans. If the Utility

does not provide comments within that thirty-day period, the plans and specifications will be deemed approved by the Utility. In addition, the Utility shall have the right to require oversizing of facilities installed by the Developer as Utility determines are necessary for orderly growth within its service area, provided that the Utility pays for the proportionate costs of such oversizing. The Utility shall also have the right to require certain configurations that meet prudent utility practice and general industry practice, to participate in design review and design verification activities, pre- and post-construction inspection requirements, commissioning requirements, test and trials (design validation), and to prescribe certain equipment over other equipment. However, the Utility cannot require changes to the configuration, design or equipment after approval of the plans and specifications.

b. Corrective Action. Utility shall have the right to inspect and test the Facilities at reasonable times during the course of construction as necessary to ensure conformance with the approved plans and specifications. If, at any time before the final acceptance by Utility of the Facilities, any construction, materials or workmanship are found to be defective or deficient in any way, or the Facilities fail to conform to the plans and specifications, then Utility may reject such defective or deficient construction, materials and/or workmanship and require Developer to fully pay for all necessary corrective construction efforts ("Corrective Action"). Utility reserves the right to withhold approval and to forbid connection of any defective portion of the Facilities to Utility's system unless and until the Facilities have been constructed in accordance with plans and specifications and all applicable regulatory requirements. Further, Developer shall promptly undertake any Corrective Action required to remedy such defects and deficiencies in construction, materials and workmanship upon receipt of

notice by Utility. The foregoing notwithstanding, Utility shall not unreasonably withhold or delay inspection, testing or acceptance of the Facilities.

2. Transfer of Ownership; As-Built Plans; Warranty.

a. Transfer. Upon proper completion, testing and final inspection of the Facilities by Utility, Utility shall issue a written notice of acceptance to Developer. Immediately thereafter, Developer shall convey to Utility, via a bill of sale in a form satisfactory to Utility, the Facilities together with any permanent easements and/or rights-of-way that are not subject to the Agreement between Utility and the City, and required pursuant to Section 4 below. All facilities so transferred shall thereafter become and remain the sole property and responsibility of Utility subject to the terms of any warranty provisions.

b. As-Built Plans. At the time of transfer, Developer shall also provide to Utility three (3) sets of "as-built" drawings and specifications showing evidence of the appropriate ADEQ, County and other regulatory agency approvals for the Facilities, certified and sealed by Developer's engineers to be true and correct, in a form acceptable to the Utility.

c. Warranty. Developer warrants that upon completion the Facilities will be free from all defects and deficiencies in construction, materials and workmanship for a period of two years from the date of Utility's acceptance. During the warranty period, Developer agrees to promptly undertake any Corrective Action required to remedy such defects and deficiencies upon notice by Utility. Upon Utility's acceptance of the Facilities, as provided in Section 2.a of this Agreement, Utility shall be deemed to have accepted the Facilities in "as is" and "as-constructed" condition, subject only to the two-year warranty period concerning defects and deficiencies in construction, materials and workmanship.

3. Reimbursement for Inspection Costs, Overhead and Other Expenses of Utility. Developer shall reimburse Utility for Utility's reasonable fees, costs and expenses incurred in connection with its review of the engineering plans and specifications for the Facilities, and inspection and testing of the Facilities during and after their construction, and other fees, costs and expenses reasonably and necessarily incurred by Utility with respect to preparation of this Agreement, as well as other necessary administrative, engineering or legal services (collectively, "Administrative Costs"). In the ordinary course of business, but no less often than quarterly, Utility shall provide Developer invoices supporting such Administrative Costs. Payment shall be made by Developer on or before the fifteenth (15th) day of the calendar month following the month in which Utility's statement is received. Utility hereby acknowledges its receipt of $7,500.00 from Developer as a deposit, which shall be applied as a credit against Administrative Costs incurred by Utility hereunder.

4. Public Streets and Rights-of-Way; Easements; Spacing of Mains. At the time of transfer of ownership of any Facilities, as provided in Section 2 above, Developer shall provide Utility with evidence satisfactory to Utility, that all Facilities are located within dedicated streets and/or public rights-of-way. In the event that any of the Facilities are not located within dedicated streets and/or public rights-of-way, then, at the time of transfer of ownership of such Facilities, Developer shall grant to Utility, or shall cause to be granted to Utility, easements and/or rights-of-way, free from all liens and security interests thereon, and in a form that is satisfactory to Utility, over, under, and across any real property, within or outside the Property, as necessary to operate, maintain and repair the Facilities. Unless otherwise mutually agreed upon in writing, such easements and/or rights-of-way shall be free of physical encroachments, encumbrances or obstacles, and shall have a minimum width of twelve (12) feet and the mains

and service lines shall be separated by a reasonable distance from other utility lines and facilities to prevent damage or conflicts in the event of repairs or maintenance.

5. Advances in Aid of Construction.

a. Determination of Amount of Developer Advances. The actual cost of constructing and installing the Facilities described in Section 1 above, and all amounts paid by Developer pursuant to Section 1 above, shall constitute an Advance in Aid of Construction and shall be refundable to Developer in accordance with Section 5.b of this Agreement. Developer shall provide Utility with a written statement setting forth in detail Developer's actual costs of construction within twenty (20) business days following receipt of Utility's notice of acceptance of the Facilities, together with copies of all invoices, bills, statements and other documentation evidencing the cost of construction. The cost of any Corrective Action, the cost of curing any defects arising during the warranty period, as provided for herein, and the cost of any unreasonable overtime incurred in the construction of the Facilities shall not be included in the actual cost of constructing and installing the Facilities, and shall not be subject to refund by Utility hereunder.

b. Refunds of Advances to Developer. Utility shall refund annually to Developer an amount equal to ten percent (10%) of the gross annual operating revenues, which is all revenue collected from bona fide customers exclusive of any taxes or pass-through costs by Utility, from the sale of water utility services to bona fide customers of Utility within the Property. Such refunds shall be paid by Utility on or before August 31 of each calendar year for the preceding July 1 to June 30 period, commencing in the calendar year immediately following the year in which Utility acquires title to the Facilities and continuing thereafter in each succeeding calendar year for a total of ten (10) years. No interest shall accrue or be payable on

the amounts to be refunded hereunder and any unpaid balance remaining at the end of such ten year period shall become a non-refundable contribution in aid of construction to Utility and be recorded as such in the company's books and records of account. In no event shall the total amount of the refunds paid by Utility pursuant to this Agreement exceed the total amount of all refundable advances paid by Developer.

6. Liability for Income Taxes. In the event it is determined that all or any portion of Developer's Advance in Aid of Construction hereunder constitutes taxable income to Utility as of the date of this Agreement or at the time Utility actually receives such advances hereunder, Developer will advance funds to Utility equal to the income taxes resulting from Developer's advances hereunder. These funds shall be paid to Utility within twenty (20) days following notification to Developer that a determination has been made that any such advances constitute taxable income, whether by virtue of any determination or notification by a governmental authority, amendment to the Internal Revenue Code, any regulation promulgated by the Internal Revenue Service, or similar change to any statute, rule or regulation relating to this matter. Such notification shall include documentation reasonably necessary to substantiate the Utility's liability for income taxes resulting from the Developer's Advances in Aid of Construction under this Agreement. In the event that additional funds are paid by Developer under this Paragraph, such funds shall also constitute Advances in Aid of Construction. In addition, Developer shall indemnify and hold Utility harmless for, from and against any tax-related interest, fines and penalties assessed against Utility and other costs and expenses incurred by Utility as a consequence of late payment by Developer of amounts described above.

7. Notice. All notices and other written communications required hereunder shall be sent to the parties as follows:

New River Utility Company
Attn: Robert Fletcher
7839 W. Deer Valley Rd.
Phoenix, AZ 85382
Telephone: (623) 561-1848

Cody Farms, Inc.
Attn: Les Fletcher

_____
Phoenix, AZ _____
Telephone: _____

Each party shall advise the other party in writing of any change in the manner in which notice is to be provided hereunder.

8. Default. Any claim that Utility or Developer is in default or breach of this Agreement shall be in writing and sent via first class regular mail to the address provided in Section 7 above. No default shall become effective until twenty (20) days from the date of mailing, during which time the party claimed to be in default shall have an opportunity to cure the alleged default.

9. Risk of Loss: Indemnification. Until Utility has issued its written notice of acceptance of the Facilities constructed by Developer hereunder, all risk of loss with respect to the Facilities shall remain with Developer. Developer shall indemnify and hold Utility and its officers, directors, employees and agents harmless for, from and against all claims or other liability, whether actually asserted or threatened, arising out of or related to Developer's construction of the Facilities hereunder. Developer's obligations under this paragraph shall not extend to any claims or liability arising out of Utility's ownership and operation of the Facilities following their acceptance.

10. Utility's Obligation to Serve. Utility shall have no obligation to accept and operate the Facilities to be constructed hereunder in the event Developer fails to make any

payment provided in this Agreement, fails to complete the construction and installation of the Facilities in accordance with their plans and specifications, or otherwise fails to comply with any of the terms and conditions of this Agreement in any material respect. Utility shall promptly provide water utility service to the Property upon completion and acceptance of the Facilities and payment by Developer of all amounts due under this Agreement, subject to the limitations provided in paragraph 13 below.

11. Right of Assignment. Developer may assign this Agreement, or any of its rights and obligations hereunder, to another party, including another company under the same corporate umbrella, provided that such assignment is made in connection with the sale of the Property and further provided that Developer first receives written consent of such assignment from Utility prior to the effective date of the assignment, which consent shall not be unreasonably withheld; provided, however, that Developer acknowledges that Utility may, in its sole discretion, require that the assignee agree in writing to fully perform Developer's obligations hereunder to be bound by this Agreement and to require that the assignee demonstrate financial ability to assume Developer's obligations hereunder.

12. Alternative Dispute Resolution. The parties hereto agree that each will use good faith efforts to resolve, through negotiation, disputes arising hereunder without resorting to mediation, arbitration or litigation. If the parties fail to resolve the dispute within sixty (60) days, either party may submit the matter to mandatory and binding arbitration in accordance with the rules of the American Arbitration Association currently in effect unless the parties mutually agree otherwise or commence litigation in a court or other tribunal of appropriate jurisdiction.

13. Extension of Service. Utility shall promptly seek authority from the Commission for the extension of its CC&N to include the Property. Further, all obligations under this

Agreement shall be conditioned upon Utility gaining authority from the Commission, free from any unreasonable condition, to include the Property in Utility's CC&N. Owner covenants and agrees to support Utility's application to extend its CC&N, and shall, upon request by Utility, provide testimony and/or public comment supporting Utility's application in connection with any proceeding before the Commission.

14. Commission Rules and Regulations. This Agreement, and all rights and obligations hereunder, shall be subject to the Commission's rules and regulations regarding the operation of water utility companies (A.A.C. R14-2-401, *et seq.*) and all applicable rates, fees, charges, and tariffs of Utility relating to water utility service as approved by the Commission or as may be modified in the future.

15. Attorneys' Fees. The prevailing party in any litigation or other proceeding concerning or related to this Agreement, or the enforcement of thereof, shall be entitled to recover its costs and reasonable attorneys' fees.

16. Time of the Essence. Time is of the essence of every provision hereof.

17. Miscellaneous. This Agreement shall be governed by the laws of the State of Arizona. This Agreement, and each and every term and condition contained herein, shall be binding upon and inure to the benefit of the successors and assigns of Utility and Developer. This Agreement sets forth the entire agreement between the parties and supersedes all prior negotiations, understandings and agreements between them, except as otherwise expressly provided herein. No change in, addition to, or waiver of any provisions of this Agreement shall be binding upon either party unless in writing and signed by both parties.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

NEW RIVER UTILITY COMPANY,
an Arizona public service corporation

By: _____
Its: Pres

Date: 7-9-04

"Utility"

CODY FARMS, INC.,
a Texas corporation

By: _____
Its: Pres

Date: 7-9-04

"Developer"

SCHEDULE OF EXHIBITS

Exhibit "A"	Legal Description of Property containing approximately 20 acres owned by Developer
Exhibit "B"	As-Built Plans of the Facilities to be constructed by Developer
Exhibit "C"	Estimate of Cost for Facilities

EXHIBIT "A"

Legal Description of Property

EXHIBIT "C"

Estimate of Cost for Facilities

MAIN EXTENSION AGREEMENT
(WATER SERVICE)

THIS AGREEMENT is made this 9th day of July, 2004, by and between NEW RIVER UTILITY COMPANY, an Arizona public service corporation ("Utility"), and COLUMBIA PROPERTY DEVELOPMENT, LLC., an Delaware limited liability company, ("Developer") for the purposes and consideration hereinafter set forth.

RECITALS

A. Developer is the owner of certain real property generally situated on 78th Avenue south of Deer Valley Road in Peoria, Arizona, as more particularly described in Exhibit A attached hereto and incorporated herein by this reference (the "Property"). The Property contains approximately 33 acres.

B. Developer has requested that water utility service be extended and provided to the Property by Utility in furtherance of Developer's development plans. Developer intends to develop a residential project known as RIVERSTONE ESTATES ("Riverstone"), which at full build-out will contain approximately 101 residential units and related common areas. Developer is willing to construct and install transmission mains and/or other facilities, as necessary on-site for Utility to furnish service to Riverstone. Developer is willing to convey title to these facilities following completion of construction. All amounts paid by Developer for such facilities will be treated as an Advance in Aid of Construction, as defined in Section 5, according to the terms and conditions set forth hereinafter.

C. Utility is a public service corporation as defined in Article 15, Section 2, of the Arizona Constitution and, as such, is regulated by the Arizona Corporation Commission ("Commission"). Utility has been granted a Certificate of Convenience and Necessity

("CC&N") by the Commission authorizing Utility to provide water utility service within its certificated service area. Although the Property is not located within the Utility's current CC&N, Utility agrees to file an application with the Commission for an extension of its CC&N as more fully described in Section 13 of this Agreement.

NOW, THEREFORE, in consideration of the following covenants and agreements, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

AGREEMENTS

1. Facilities Construction by Developer.

a. Construction of Facilities; Right of Inspection. Subject to Sections 2 through 4 below, Developer shall construct and install, or shall cause to be constructed and installed, at its sole expense, all on-site transmission and collection mains and pipelines, fittings, service lines and/or all other related items required to extend utility service to each lot or building within the Property, as more particularly described in Exhibit B and Exhibit C attached hereto and incorporated herein by this reference (the "Facilities"). Developer agrees that the size, design, type and quality of materials used to construct the Facilities, as well as the location of the Facilities upon and under the ground, shall be approved by Utility prior to the commencement of construction and that the Facilities shall be designed and constructed in accordance with all applicable standards of Utility, the Arizona Department of Environmental Quality ("ADEQ"), the Commission and any other governmental agencies exercising jurisdiction over the design and construction of water utility systems. All plans and specifications shall be submitted to the Utility for approval prior to submission to the regulatory agencies. The Utility shall have thirty (30) business days within which to revise or approve the plans. If the Utility

does not provide comments within that thirty-day period, the plans and specifications will be deemed approved by the Utility. In addition, the Utility shall have the right to require oversizing of facilities installed by the Developer as Utility determines are necessary for orderly growth within its service area, provided that the Utility pays for the proportionate costs of such oversizing. The Utility shall also have the right to require certain configurations that meet prudent utility practice and general industry practice, to participate in design review and design verification activities, pre- and post-construction inspection requirements, commissioning requirements, test and trials (design validation), and to prescribe certain equipment over other equipment. However, the Utility cannot require changes to the configuration, design or equipment after approval of the plans and specifications.

b. Corrective Action. Utility shall have the right to inspect and test the Facilities at reasonable times during the course of construction as necessary to ensure conformance with the approved plans and specifications. If, at any time before the final acceptance by Utility of the Facilities, any construction, materials or workmanship are found to be defective or deficient in any way, or the Facilities fail to conform to the plans and specifications, then Utility may reject such defective or deficient construction, materials and/or workmanship and require Developer to fully pay for all necessary corrective construction efforts ("Corrective Action"). Utility reserves the right to withhold approval and to forbid connection of any defective portion of the Facilities to Utility's system unless and until the Facilities have been constructed in accordance with plans and specifications and all applicable regulatory requirements. Further, Developer shall promptly undertake any Corrective Action required to remedy such defects and deficiencies in construction, materials and workmanship upon receipt of

notice by Utility. The foregoing notwithstanding, Utility shall not unreasonably withhold or delay inspection, testing or acceptance of the Facilities.

2. Transfer of Ownership; As-Built Plans; Warranty.

a. Transfer. Upon proper completion, testing and final inspection of the Facilities by Utility, Utility shall issue a written notice of acceptance to Developer. Immediately thereafter, Developer shall convey to Utility, via a bill of sale in a form satisfactory to Utility, the Facilities together with any permanent easements and/or rights-of-way that are not subject to the Agreement between Utility and the City, and required pursuant to Section 4 below. All facilities so transferred shall thereafter become and remain the sole property and responsibility of Utility subject to the terms of any warranty provisions.

b. As-Built Plans. At the time of transfer, Developer shall also provide to Utility three (3) sets of "as-built" drawings and specifications showing evidence of the appropriate ADEQ, County and other regulatory agency approvals for the Facilities, certified and sealed by Developer's engineers to be true and correct, in a form acceptable to the Utility.

c. Warranty. Developer warrants that upon completion the Facilities will be free from all defects and deficiencies in construction, materials and workmanship for a period of two years from the date of Utility's acceptance. During the warranty period, Developer agrees to promptly undertake any Corrective Action required to remedy such defects and deficiencies upon notice by Utility. Upon Utility's acceptance of the Facilities, as provided in Section 2.a of this Agreement, Utility shall be deemed to have accepted the Facilities in "as is" and "as-constructed" condition, subject only to the two-year warranty period concerning defects and deficiencies in construction, materials and workmanship.

3. Reimbursement for Inspection Costs, Overhead and Other Expenses of Utility. Developer shall reimburse Utility for Utility's reasonable fees, costs and expenses incurred in connection with its review of the engineering plans and specifications for the Facilities, and inspection and testing of the Facilities during and after their construction, and other fees, costs and expenses reasonably and necessarily incurred by Utility with respect to preparation of this Agreement, as well as other necessary administrative, engineering or legal services (collectively, "Administrative Costs"). In the ordinary course of business, but no less often than quarterly, Utility shall provide Developer invoices supporting such Administrative Costs. Payment shall be made by Developer on or before the fifteenth (15th) day of the calendar month following the month in which Utility's statement is received. Utility hereby acknowledges its receipt of $7,500.00 from Developer as a deposit, which shall be applied as a credit against Administrative Costs incurred by Utility hereunder.

4. Public Streets and Rights-of-Way; Easements; Spacing of Mains. At the time of transfer of ownership of any Facilities, as provided in Section 2 above, Developer shall provide Utility with evidence satisfactory to Utility, that all Facilities are located within dedicated streets and/or public rights-of-way. In the event that any of the Facilities are not located within dedicated streets and/or public rights-of-way, then, at the time of transfer of ownership of such Facilities, Developer shall grant to Utility, or shall cause to be granted to Utility, easements and/or rights-of-way, free from all liens and security interests thereon, and in a form that is satisfactory to Utility, over, under, and across any real property, within or outside the Property, as necessary to operate, maintain and repair the Facilities. Unless otherwise mutually agreed upon in writing, such easements and/or rights-of-way shall be free of physical encroachments, encumbrances or obstacles, and shall have a minimum width of twelve (12) feet and the mains

and service lines shall be separated by a reasonable distance from other utility lines and facilities to prevent damage or conflicts in the event of repairs or maintenance.

5. Advances in Aid of Construction.

a. Determination of Amount of Developer Advances. The actual cost of constructing and installing the Facilities described in Section 1 above, and all amounts paid by Developer pursuant to Section 1 above, shall constitute an Advance in Aid of Construction and shall be refundable to Developer in accordance with Section 5.b of this Agreement. Developer shall provide Utility with a written statement setting forth in detail Developer's actual costs of construction within twenty (20) business days following receipt of Utility's notice of acceptance of the Facilities, together with copies of all invoices, bills, statements and other documentation evidencing the cost of construction. The cost of any Corrective Action, the cost of curing any defects arising during the warranty period, as provided for herein, and the cost of any unreasonable overtime incurred in the construction of the Facilities shall not be included in the actual cost of constructing and installing the Facilities, and shall not be subject to refund by Utility hereunder.

b. Refunds of Advances to Developer. Utility shall refund annually to Developer an amount equal to ten percent (10%) of the gross annual operating revenues, which is all revenue collected from bona fide customers exclusive of any taxes or pass-through costs by Utility, from the sale of water utility services to bona fide customers of Utility within the Property. Such refunds shall be paid by Utility on or before August 31 of each calendar year for the preceding July 1 to June 30 period, commencing in the calendar year immediately following the year in which Utility acquires title to the Facilities and continuing thereafter in each succeeding calendar year for a total of ten (10) years. No interest shall accrue or be payable on

the amounts to be refunded hereunder and any unpaid balance remaining at the end of such ten year period shall become a non-refundable contribution in aid of construction to Utility and be recorded as such in the company's books and records of account. In no event shall the total amount of the refunds paid by Utility pursuant to this Agreement exceed the total amount of all refundable advances paid by Developer.

6. Liability for Income Taxes. In the event it is determined that all or any portion of Developer's Advance in Aid of Construction hereunder constitutes taxable income to Utility as of the date of this Agreement or at the time Utility actually receives such advances hereunder, Developer will advance funds to Utility equal to the income taxes resulting from Developer's advances hereunder. These funds shall be paid to Utility within twenty (20) days following notification to Developer that a determination has been made that any such advances constitute taxable income, whether by virtue of any determination or notification by a governmental authority, amendment to the Internal Revenue Code, any regulation promulgated by the Internal Revenue Service, or similar change to any statute, rule or regulation relating to this matter. Such notification shall include documentation reasonably necessary to substantiate the Utility's liability for income taxes resulting from the Developer's Advances in Aid of Construction under this Agreement. In the event that additional funds are paid by Developer under this Paragraph, such funds shall also constitute Advances in Aid of Construction. In addition, Developer shall indemnify and hold Utility harmless for, from and against any tax-related interest, fines and penalties assessed against Utility and other costs and expenses incurred by Utility as a consequence of late payment by Developer of amounts described above.

7. Notice. All notices and other written communications required hereunder shall be sent to the parties as follows:

New River Utility Company
Attn: Robert Fletcher
7839 W. Deer Valley Rd.
Phoenix, AZ 85382
Telephone: (623) 561-1848

Columbia Property Development, LLC.
Attn: Dick Cannon
17797 North Perimeter, Suite 115
Scottsdale, AZ 85255
Telephone: (480) 473-1686

Each party shall advise the other party in writing of any change in the manner in which notice is to be provided hereunder.

8. Default. Any claim that Utility or Developer is in default or breach of this Agreement shall be in writing and sent via first class regular mail to the address provided in Section 7 above. No default shall become effective until twenty (20) days from the date of mailing, during which time the party claimed to be in default shall have an opportunity to cure the alleged default.

9. Risk of Loss: Indemnification. Until Utility has issued its written notice of acceptance of the Facilities constructed by Developer hereunder, all risk of loss with respect to the Facilities shall remain with Developer. Developer shall indemnify and hold Utility and its officers, directors, employees and agents harmless for, from and against all claims or other liability, whether actually asserted or threatened, arising out of or related to Developer's construction of the Facilities hereunder. Developer's obligations under this paragraph shall not extend to any claims or liability arising out of Utility's ownership and operation of the Facilities following their acceptance.

10. Utility's Obligation to Serve. Utility shall have no obligation to accept and operate the Facilities to be constructed hereunder in the event Developer fails to make any

payment provided in this Agreement, fails to complete the construction and installation of the Facilities in accordance with their plans and specifications, or otherwise fails to comply with any of the terms and conditions of this Agreement in any material respect. Utility shall promptly provide water utility service to the Property upon completion and acceptance of the Facilities and payment by Developer of all amounts due under this Agreement, subject to the limitations provided in paragraph 13 below.

11. Right of Assignment. Developer may assign this Agreement, or any of its rights and obligations hereunder, to another party, including another company under the same corporate umbrella, provided that such assignment is made in connection with the sale of the Property and further provided that Developer first receives written consent of such assignment from Utility prior to the effective date of the assignment, which consent shall not be unreasonably withheld; provided, however, that Developer acknowledges that Utility may, in its sole discretion, require that the assignee agree in writing to fully perform Developer's obligations hereunder to be bound by this Agreement and to require that the assignee demonstrate financial ability to assume Developer's obligations hereunder.

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Agreement shall be conditioned upon Utility gaining authority from the Commission, free from any unreasonable condition, to include the Property in Utility's CC&N. Owner covenants and agrees to support Utility's application to extend its CC&N, and shall, upon request by Utility, provide testimony and/or public comment supporting Utility's application in connection with any proceeding before the Commission.

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15. Attorneys' Fees. The prevailing party in any litigation or other proceeding concerning or related to this Agreement, or the enforcement of thereof, shall be entitled to recover its costs and reasonable attorneys' fees.

16. Time of the Essence. Time is of the essence of every provision hereof.

17. Miscellaneous. This Agreement shall be governed by the laws of the State of Arizona. This Agreement, and each and every term and condition contained herein, shall be binding upon and inure to the benefit of the successors and assigns of Utility and Developer. This Agreement sets forth the entire agreement between the parties and supersedes all prior negotiations, understandings and agreements between them, except as otherwise expressly provided herein. No change in, addition to, or waiver of any provisions of this Agreement shall be binding upon either party unless in writing and signed by both parties.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

NEW RIVER UTILITY COMPANY,
an Arizona public service corporation

By: _____
Its: Pres

Date: 7-9-04

"Utility"

COLUMBIA PROPERTY DEVELOPMENT, LLC,
an Delaware limited liability company

by Columbia Group Limited,
a California limited partnership, its sole member
By: _____
Its: Exec Vice President

Date:

"Developer"

SCHEDULE OF EXHIBITS

Exhibit "A"	Legal Description of Property containing approximately 33 acres owned by Developer
Exhibit "B"	As-Built Plans of the Facilities to be constructed by Developer
Exhibit "C"	Estimate of Cost for Facilities